



Support News 

August 8, 1994

Volume I, Issue 8

“Get Off the Highway  
and Into the Alley™”

## In This Issue...

Inside Information .....	2
Thoughts From the Alley Cat – System 7.5 Announced! .....	3
50 New System 7.5 Features! .....	4
QuickDraw GX .....	9
Useful System 7.5 Extras .....	11
Digital Signatures with DigiSign .....	12
Apple Guide .....	14
Mobile Computing Enhancements .....	16
New Places to Find the <u>Information Alley</u> .....	18
System 7.5 DOS/TCP Compatibility .....	19
Scriptable Finder with AppleScript .....	20
Tell Us What You Think .....	22

# Inside Information...

## About the Information Alley

The Information Alley™ is a publication of Apple Computer, Inc., Support Information Services. It is available to all Apple customers and computer users through a variety of on-line services and direct email capability. The goal of the Information Alley is to help Apple computer users get full use of their Apple computers, peripherals, and software.

Articles chosen for the Information Alley come from many sources, both from inside Apple Computer and from our customers and users. Sources include the Technical Information Library, Apple Assistance Center, New Technology Group, World Wide Product Technical Support, Apple Users Groups, and other technical groups and organizations.

## Submissions and Letters to the Information Alley

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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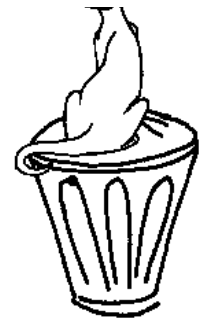
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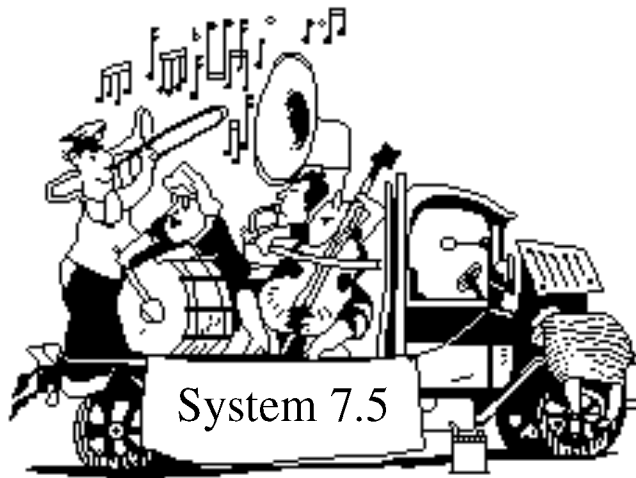
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# System 7.5 Announced!

By Janet Christian

Apple Computer officially announced System 7.5 on August 2. Since this release is for all Macintosh computers (except for the Macintosh XL, Macintosh 128K and Macintosh 512K/512Ke) this issue of the Information Alley is dedicated to providing a thorough overview and description of several of the major features.



## Issue Length

Because there is so much information to cover about System 7.5, this issue is slightly longer than normal. And even with the additional length, this issue barely touches on the many new features and functions of System 7.5. We will continue to include articles about System 7.5 in future issues of the Alley to help you get all the information you want and can use.

## Digital Signatures

You will find an article on page 12 about using DigiSign to create digital

signatures. After issue 7 (which included an announcement about this issue's focus) was released, we received a request from Macintosh user Bil Corry asking us to include information about digital signatures. We try to respond to article requests and are happy to include this information in this issue – especially since digital signature functionality is now included in System 7.5. Thanks for the request, Bil.

## We Want Your Feedback Again!

Apple's Customer Services Division is dedicated to providing you with the information and help you need in the ways that you most prefer. To this end, we would like to know how you prefer to receive information and assistance.

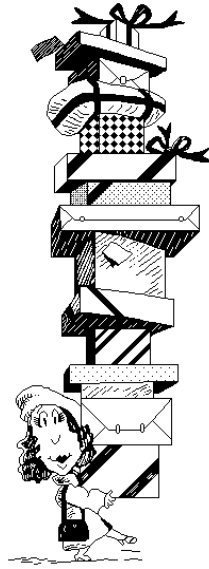
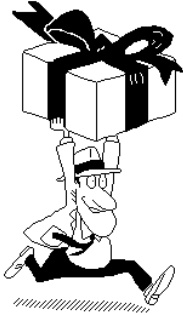
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Apple wants to focus its attention and resources on the means of communication that our customers find most valuable. Your feedback is important to us. Please take a few minutes to send us an e-mail or fax listing the preceding five options in order from your most preferred method to your least preferred method. 🍏

# 50 New System 7.5 Features!

The Macintosh System 7 operating system has established a tradition of delivering breakthrough functionality to Macintosh users.



Through the regular release of system extensions and enhancements, System 7 has come to offer features such as built-in mail and messaging, multimedia capabilities, support for multiple languages, and the ability to automate routine tasks. It is also the only mainstream personal-computer operating system for RISC (Reduced Instruction Set Computing) based Macintosh computers, such as the Power Macintosh.

With the release of System 7.5, Apple offers even greater power to Macintosh users, providing technology that actively assists you, elegantly simplifies many tasks, offers built-in compatibility with MS-DOS and Windows data files and diskettes, and brings users advanced graphics capabilities. The result is greater productivity and a computing environment more closely tailored to your individual preferences.

System 7.5 offers several significant enhancements that enable greater efficiency and speed – letting you minimize the number of steps it takes to complete a given task. In addition,

System 7.5 introduces QuickDraw GX, a sophisticated graphics and printing architecture that represents a major advance in ease-of-use for everyday printing as well as high-end graphics manipulation.

To make it easier to work with others, System 7.5 also builds in collaborative technologies such as electronic mail, catalogs, and electronic signatures via PowerTalk. It also supports industry standards such as DOS and Windows data files, and the TCP/IP protocol. By fitting into your larger computing environment in this way, System 7.5 provides you with a much broader range of options. Having an open, connected environment is important for many Macintosh users – as well as DOS and Windows users who are considering Macintosh. They are equally concerned about making choices that will give them the greatest range of future options.

System 7.5 enhancements fall into these major areas:

- Active assistance and customization
- Compatibility
- Advanced graphics and printing
- Collaborative technologies
- Mobile computing

## **Active Assistance and Customization**

### **Apple Guide**

A whole new kind of help system that features active assistance; it walks you through any task one step at a time from start to finish, so you learn by doing.

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## **Macintosh Drag & Drop**

Bypass the Cut and Paste commands. Now with drag-and-drop savvy applications, including the Note Pad, SimpleText, Finder, Desktop Patterns, and Scrapbook, you can simply drag graphics, text, and sound within a document, between documents, between applications, or to the desktop as “clippings” files.

## **Scriptable Finder**

Automate routine and repetitive system tasks with scripts that save you time and help you avoid mistakes.

## **Enhanced Apple Menus**

The Apple Menu now features hierarchical sub-menus so you can quickly access your Control Panel items and your most recently used applications, documents, and servers.

## **Faster than System 7.1**

Snappier than ever, 7.5 offers users improved performance when they copy files, launch and switch applications, and access menus.

## **WindowShade**

Cut down on screen clutter – a simple double click on any window’s title bar and zip, the window shrinks to give you access to information behind it.

## **4 Gigabyte Volume Support**

System 7.5 doubles the volume support size from 2 to 4 gigabytes so you can store large data, documents, and files in one place. Large volume support is available for some third-party drives.

## **Finder Hiding**

Use the Desktop Hiding feature to keep novice users from becoming confused when they click outside an applications and find themselves on the desktop.

## **Launcher**

Improve your productivity by keeping your frequently used applications,

documents, and folders in a special floating window for quick access.

## **Recent Items folders**

Quickly access recently opened documents and applications through a hierarchical Apple menu.

## **Default Folder for Saving Files**

Automatically save newly-created documents to a central folder on the desktop so you can find them easily and spend less time looking for them later.

## **Electronic Notes**

Easily make and post notes to your desktop in a variety of colors. Remind yourself of key meetings, phone calls, or important dates. Print or mail your memos with Macintosh Drag and Drop.

## **New Scrapbook**

Now you can change the size and dimensions of the Scrapbook. And when working with drag-and-drop-savvy applications, simply drag items directly from the Scrapbook without cutting and pasting.

## **New Note Pad**

A resizable Note Pad offers increased functions like printing, find file, and support for Macintosh Drag and Drop. Make and store notes of up to 32K each.

## **Menu Bar Clock**

Display day of week, and date in menu bar in a variety of fonts and colors. Toggle with a double-click between date and time.

## **System/Application Folder Locking**

Lock your System and application folders to keep novice or young users from deleting files, making unwanted changes, or “storing” things in the Trash.

## **Improved Stability**

A more stable system that means fewer bugs, bombs, and crashes for today’s Apple computers.

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## **More Colorful Desktop Patterns**

Select from dozens of new and more colorful desktop patterns.

## **Automatic Power Management**

Automatically power-off most systems at a specific time or after a predetermined period of idle time. Save time, energy, and hardware life.

## **New Audio CD Player**

New Apple menu item offers you easy access and full control for playing and programming audio CDs.

## **Sound Manager 3.0**

Enjoy 16-bit stereo-quality sound for all your multimedia applications, CD-ROM packages, education software, and more.

## **Compatibility**

### **Macintosh PC Exchange and Macintosh Easy Open**

These powerful utilities are now built into System 7.5 to make it easier than ever for you to exchange information and work with DOS, Windows, OS/2 and Apple II ProDOS disks and data files.

### **MacTCP**

Apple computers take another step to total connectivity with on-board support for TCP/IP, giving you simplified access to UNIX systems and Internet communications.

## **Advanced Graphics and Printing with QuickDraw GX**

### **Desktop Printers**

Work more efficiently with desktop printer icons for all your printers. Drag documents to any printer, check status of print queue, and cancel or move print requests – all without the complexity of accessing the PrintMonitor or resetting printer through the Chooser.

## **Improved Printer Selection**

Bypass the Chooser for faster printing. Simply select a printer from a pop-up list in the GX-savvy application's print dialog box and print.

## **GX Print Enhancers – Sample Tools**

Save on paper and printing with printing extensions that let you produce thumbnails for previewing output. Additional extensions available from third party companies offer “watermark” printing, double sided printing, pamphlet maker, and more.

## **GX Printer Sharing**

Save time and money, increase user productivity, and eliminate need for dedicated workstations for output devices such as plotters. Password protect high-end devices like color printers that use expensive printing materials.

## **GX Print And View Documents**

View and print any document regardless of application type or fonts used and reduce need for multiple copies of software throughout your organization. Distribute electronic documents for review without risk of original document being changed.

## **Built-in ATM GX**

Work smarter with your Type 1 fonts; install QuickDraw GX for better WYSIWYG output every time you print.

## **WYSIWYG (What You See Is What You Get) Color with ColorSync**

Get consistent color-matching between scanners, displays, and printers and eliminate fiddling with color settings and printing multiple drafts just to get the colors right.

## **European Language Support**

Set keyboard, as well as date and time formats, for any one of 18 European languages.

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### **Better Quality Typography**

Get professional typography without expert sets and cumbersome search-and-replace routines. Automatically obtain ligatures, fractions, hanging punctuation, and optical alignment when using GX fonts and applications.

### **Multiple Page Formats**

Create multiple formats — horizontal, vertical, and varied paper sizes — in a single document when working with GX-savvy applications. What once took several documents can now be done in one.

### **Font Embedding**

Embed fonts in your GX-ready applications for consistent and predictable results when working with service bureaus. Workgroups can now edit a design document without having the document's fonts installed on every workstation.

### **Collaboration Technologies**

#### **Built-in AppleMail**

Small businesses and workgroups can now obtain built-in peer-to-peer electronic mail without incurring added cost of e-mail software, mail server, or a system administrator.

Support for mail-capable applications — Compose and send documents directly from within any PowerTalk ready application rather than using separate e-mail software.

#### **Universal Desktop Mailbox**

Use the universal mailbox and personal gateways to send, receive, and review all your electronic communications from a single mailbox on your desktop.

#### **PowerTalk Catalogs**

Make communicating electronically simple and easy by storing individual and group electronic addresses, phone and fax numbers, and personal notes all

in one central location.

### **DigiSign Digital Signatures**

Cut down paper flow and approve documents electronically with built-in DigiSign signature software.

### **PowerTalk Key Chain Security**

Reduce hassles and save time when accessing your password-protected resources such as servers, on-line services, and e-mail.

With PowerTalk Key Chain, a single password does it all.

### **Built-in Telephony Manager**

New system architecture enables developers to incorporate telephone technologies into applications so users can take advantage of new features as they're released.

### **Mobile Computing with PowerBook**

#### **Intelligent Power-saving**

Extend battery life and optimize performance with preset power supply profiles that minimize power consumption when running on battery and maximize performance when using an AC adapter.

#### **File Synchronization**

You'll always be sure of working with your most recent version of a document. The PowerBook File Assistant utility automatically synchronizes files and folders between your PowerBook and another Macintosh.

#### **Deferred Printing**

Create documents for printing while you're on the go, when you reconnect to your selected printer, those documents can be printed.

#### **Sleep Key**

Put your PowerBook to sleep at the touch of a single key.

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## **Automatic Server Remounting**

Automatically remount servers after PowerBook comes out of sleep mode without having to use the Chooser or an Alias.

## **PowerBook Control Strip**

Save time with consolidated access to file sharing, AppleTalk, sound level, and other PowerBook features.

## **Improved Multiple Monitor Control**

Save time with this convenient feature that lets you configure external or multiple monitors without restarting your system.

## **Mobile Computing**

A combination of communications, power management, information management, and DOS compatibility software.

## **Bundled Software**

System 7.5 includes these software versions:

- Macintosh System software version 7.5 and utilities
- AppleCD Audio Player 2.0
- AppleScript 1.1, including sample scripts
- Macintosh CD Setup 5.0.1
- Macintosh Easy Open 1.1
- Macintosh PC Exchange 2.0.1
- MacTCP software version 2.0.4
- PowerBook Control Strip 1.1
- PowerBook File Assistant 1.0
- PowerTalk 1.1, including AppleMail and DigiSign software
- QuickTime 2.0
- QuickDraw GX 1.0.1

## **Compatibility**

System 7.5 is compatible with most applications that are compatible with System 7.1. However, to use some new

features of System 7.5, application programs must be written to take advantage of its capabilities.

System 7.5 includes a Safe Install utility that can advise you if control panels and extensions are not compatible. The Safe Install utility does not give compatibility information about application programs, but it does provide application program vendors' phone numbers.

## **Usage Requirements**

- CPU: System 7.5 requires a Macintosh Plus or later. PowerTalk and QuickDraw GX require a Macintosh computer equipped with a 68020 microprocessor or better.
- DRAM: 4MB minimum (5MB recommended) for Macintosh, Performa, and PowerBook computers; 8MB minimum for Power Macintosh computers; 8MB to run PowerTalk and QuickDraw GX on Macintosh, Performa, and PowerBook computers; 16MB to run PowerTalk and QuickDraw GX on Power Macintosh.
- Hard disk is required. 25MB must be available for a complete installation. 🍏

### **Tips and Tidbits**

The **⌘-Shift-3** key sequence that's built into all Macintosh computers takes a picture of the entire screen. This won't work while a menu is pulled down and always includes the cursor in the picture. (In System 6 **⌘-Shift-3** only works with black and white monitors on compact Macintosh computers.) The results are stored in a PICT file on the root level of your System disk. 🍏



# QuickDraw GX

QuickDraw GX is a Macintosh system software extension that provides printing features as well as advanced graphics, type, and color capabilities.



QuickDraw GX works with existing Macintosh applications and fonts and provides enhanced printing functionality and document portability.

## **Features**

### **PostScript integration**

QuickDraw GX automates the typographic process determining proper kerning, justification, and ligature sets. It also provides a number of ways of working with PostScript™:

- Enhanced font management  
QuickDraw GX uses Adobe Type Manager GX (ATM GX) to provide complete support for Type 1 fonts. You can work directly with Multiple Master fonts, eliminating the need for multiple weights and instances.
- Smarter printing of type  
QuickDraw GX controls the downloading of all font formats, including TrueType, to PostScript printers. QuickDraw GX downloads only the characters needed from any font so that more fonts can exist in the printer RAM.
- Extended functionality of existing PostScript devices

QuickDraw GX provides real-time color interaction between objects (transfer modes), perspective transforms on graphics and type, and high-level type features on existing PostScript devices through ColorSync color management technology.

### **Customizable, Extensible Printing**

QuickDraw GX lets you use a printing enhancer background application to customize your printing process to provide increased control, security, and feedback. Examples of this feature are print multiple document pages to a single sheet of paper, or printing grayed “Confidential” across every page of a document.

Capabilities of QuickDraw GX drivers may be expanded by adding QuickDraw GX Extensions to a user’s system folder.

### **Printing Interface**

You can create a desktop icon of your printer then drag any document on top of the icon to have it printed. You can use the printer icon to reorder the print queue, postpone a print job, or transfer print jobs to other printers by dragging document icons to a new location or printer icon.

### **Printer Sharing**

Using desktop printer icons, you can share any output device attached to an individual Macintosh across an entire network.

### **Password Protection**

You can control access to output devices, such as film recorders, to control the use of costly consumables, such as color film, color toner, or expensive types of paper.

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## **How QuickDraw Works**

QuickDraw GX is a geometric-based, resolution and device-independent graphics system. Images are described by geometric structures such as points, lines, and curves. These geometric structures are defined by a fixed-point coordinate system.

The coordinate system does not assume what metric (for example, inches or millimeters) defines the spacing in the system. Therefore, the images can be drawn to any resolution device, such as a monitor or printer, because the graphics system makes no assumptions about spacing.

An analogy to this situation is the difference between screen (bitmapped) and TrueType fonts. Both fonts contain information about how to draw characters on the screen. However, screen fonts are best shown at their predefined point size on a 72-dot-per-inch (dpi) output device, as illustrated here:

The letters 'A', 'B', and 'C' are rendered in a smooth, serif font. The edges are clean and continuous, representing a high-resolution or vector-based output.

Attempting to change the font size or draw to a different resolution device can result in rough edged characters, as illustrated here:

The letters 'A', 'B', and 'C' are rendered in a pixelated, low-resolution font. The edges are jagged and blocky, representing a low-resolution or bitmapped output.

This problem does not happen with TrueType fonts because they are based on curves.

## **Supported Output Devices**

QuickDraw GX was designed with various output devices in mind. It supports raster, PostScript, and vector (for example, plotter) devices. There are also many built-in features, such as halftones and dithering, to produce the best image for an output device.

## **QuickDraw GX and QuickDraw Together**

These QuickDraw GX features resolve many of the limitations with QuickDraw. QuickDraw is a bit image, resolution-dependent graphic system. Since many applications write directly to the data structures, there have been numerous compatibility issues. In addition, support for PostScript was added on after QuickDraw was designed, and there is no built-in support for vector devices. Nor are there any special graphic functions such as dithering.

However, QuickDraw GX does not replace QuickDraw. They work side by side. Thus, even if a you have QuickDraw GX installed, old QuickDraw applications still work. Graphic calls are routed to the correct part of the graphics system, and both QuickDraw and QuickDraw GX applications can run concurrently.

## **Document Portability**

QuickDraw GX supports the Portable Digital Document (PDD) document file format, which lets you exchange documents with other GX users, who can read and print the documents without having the same application or fonts installed.

Any application can create a PDD, which retains all the font, graphic, and typographic information of the original document. A PDD document can be opened, viewed, and printed from any other Macintosh with QuickDraw GX installed, even if the other Macintosh has not installed the application originally used to create the document.

## **Bundled Software**

### **Drivers**

- LaserWriter GX
- ImageWriter GX
- ImageWriter LQ GX

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- StyleWriter GX
- LaserWriter 300 GX
- LaserWriter IISC GX
- Portable Digital Document Maker GX

### Fonts

- Apple Chancery
- Skia
- Tekton Plus
- Hoefler & Hoefler Ornaments

### Utilities

- SimpleText 1.1.1
- LaserWriter Utility 7.7
- QuickDraw GX Helper 1.0
- Type 1 Enabler 1.1.9
- Paper Type Editor 1.0

### System Software

- QuickDraw GX 1.0.1
- ColorSync 1.0.5
- ATM GX 3.7

### Usage Requirements

QuickDraw GX requires a Macintosh, Performa, or PowerBook computer with 8MB DRAM and a 68020 microprocessor or better. It runs on all Power Macintosh computers with 16MB of DRAM.

QuickDraw GX runs with System 7.1 or later.

### Compatibility

System 7.5 is compatible with most applications that are compatible with System 7.1. However, in order to use some new features of System 7.5, application programs must be written to take advantage of its capabilities. QuickDraw GX is compatible with Type 1 and TrueType fonts.

The LaserWriter GX driver is compatible with many third party laser printers that use the standard LaserWriter driver.

These devices may not be compatible with QuickDraw GX until their manufacturers write and distribute suitable drivers or software:

Non-Apple Products	Apple products
Fax modems	Express Modem (and fax)
Laser printers	LaserWriter PostScript Fax Cards
Ink jet printers	Color StyleWriter Pro
Color imagers	Apple Color Printer
Plotters	Portable StyleWriter

Check with the appropriate third party vendor for additional information about specific products. 🍏

## Useful System 7.5 Extras

### System 7.5 Only Set

The System 7.5 Only extension manager set disables all extensions that are not installed as part of the System 7.5 installation. This helps in troubleshooting any possible extension conflict by letting you disable third party extensions while retaining base functionality of your computer during the troubleshooting process.

### Auto Power On/Off

The Auto Power On/Off control panel is installed on any Macintosh computer that can be powered on from the keyboard.

The Auto Power On/Off control panel lets you set your Macintosh computers to power on and/or off at a pre-determined time on a daily basis or for one particular day.

This feature is only available on Macintosh computers that use soft power on technology introduced with the Macintosh II series. 🍏

# Digital Signatures with DigiSign

DigiSign is Apple's implementation of digital signature technology.

It is a way of electronically signing data.

With a digital signature attached, a user can verify the signature to detect whether or not the data has been altered since the signature was attached. Signature verification also checks the validity of the signature itself, providing positive identification of who signed the data.



## What DigiSign Does

DigiSign has two goals:

- To provide a mechanism by which a user can detect whether or not a document has been altered since the time it was signed
- To positively identify the signer

Signing a document does not in any way encrypt data or prevent it from being altered. While the process of signing something does use encryption in the signature process, it is not possible to use DigiSign or Apple's digital signature manager to encrypt data.

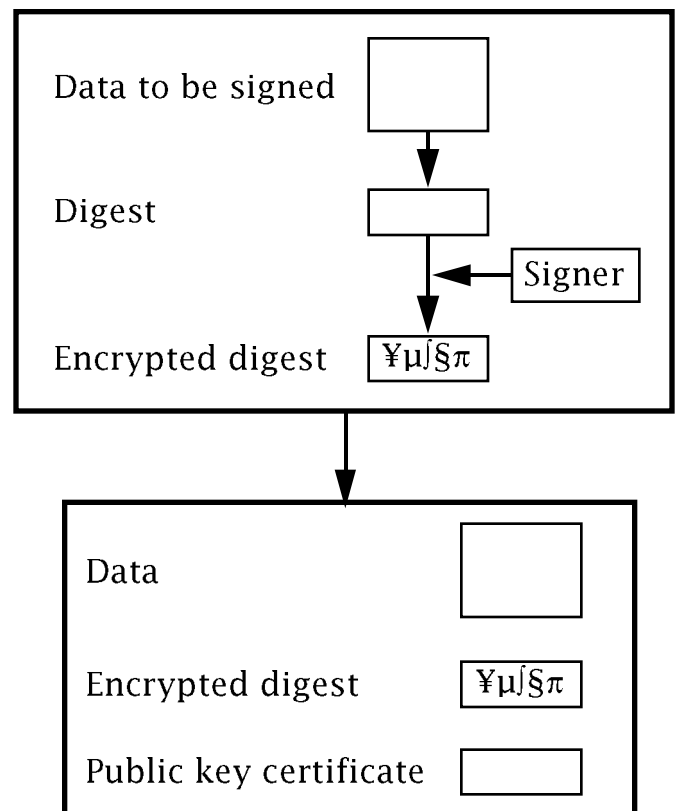
Signing a document does not prevent someone else from reading or altering the document. The data is not encrypted, just as it was before the signature was attached. Anyone can read it and anyone can make changes.

The process of verifying a signature detects whether or not changes have been made although it is not possible to discover what the changes were.

## How to Sign Something

The process of signing something begins with the data to be signed. The digital signature manager creates a 16 byte digest. The digest is a highly sophisticated checksum of the data. It is nearly impossible for two sets of data that differ in any way to produce the same digest.

This diagram illustrates the signing process:



The signer file uses a private key from the signer file to encrypt the digest. The data itself is not encrypted. Only the digest of the data is encrypted.

The resulting encrypted digest and a public key certificate are appended to the data file as a signature resource.

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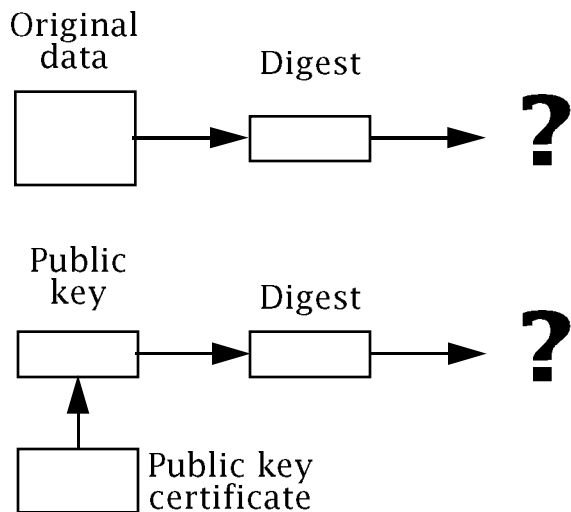
The original data remains unchanged and unprotected from anyone reading the data or making changes to it. The only thing that is changed about the file is the addition of the signature resource.

## **How to Verify Something**

The process of verifying a signature begins with calculating a new digest of the original data. Next, the public key is retrieved from the public key certificate in the digital signature attached to the document. The public key is used to decrypt the encrypted version of the digest.

The two digests are then compared. If they match, the signature verifies. If they do not match, then something has been changed on the original document so that the digests are different.

This diagram illustrates the verification process:



The process of signature verification also verifies all signatures in the attached public key certificate. This is to ensure that the signature itself is valid and has not been altered.

## **Finder Signing**

Third party applications will integrate digital signature technology into their

products. For example, Shana Corporation will incorporate digital signature technology into their Informed Manager product to enable electronic authorization of forms.

PowerTalk users can sign entire files from the Finder by dragging a file to be signed onto a Signer file. Files signed from the Finder have a signature resource attached to them. The document is also locked. However, the file locking is not secure. In order to unlock the document, the user need only select the document, choose **Get Info** from the **File** menu and then uncheck the **Locked** check box. The purpose of locking the file is to prevent casual changes to the document, not to secure the file against any possible changes.

If the name of the file changes, the signature still verifies. The reason for this is that the document itself has not changed, only the name of the document.

## **Validating a Signature**

A file signed from the Finder has a new icon in the **Get Info** window for the file the **Verification** button. Click this button and a DigiSign dialog box appears.

To verify the signature, click the **Verify** button in the DigiSign dialog box. The signature is checked for validity. If the signature is verified a successful signature dialog box is displayed.

If the signature fails to verify, a dialog displays stating, "The signature of 'Document Name' could not be verified. Either the file has been modified since it was signed or the signature itself has been altered".

## **Removing a Digital Signature**

To remove a digital signature from a document signed in the Finder, click the **Remove** button instead of the **Verify** button in the preceding process. 🍏

# Apple Guide

Apple Guide is an electronic assistant that guides Macintosh users through specific procedures one step at a time through to the completion of the task.

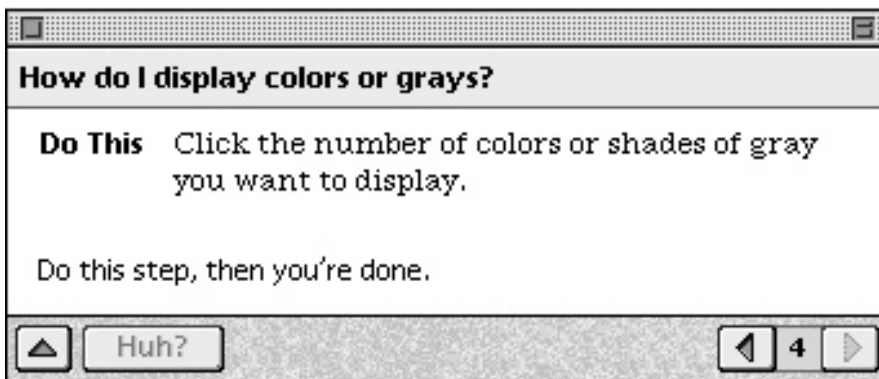
**AND OVER  
HERE...**



Working with Apple Guide is not unlike working with a teacher or coach – someone you can ask questions of and who points the way, but lets you take the way yourself. Apple Guide marks a leap from the passive assistance of typical help systems to on-line active assistance that lets you accomplish tasks as you learn how to do them.

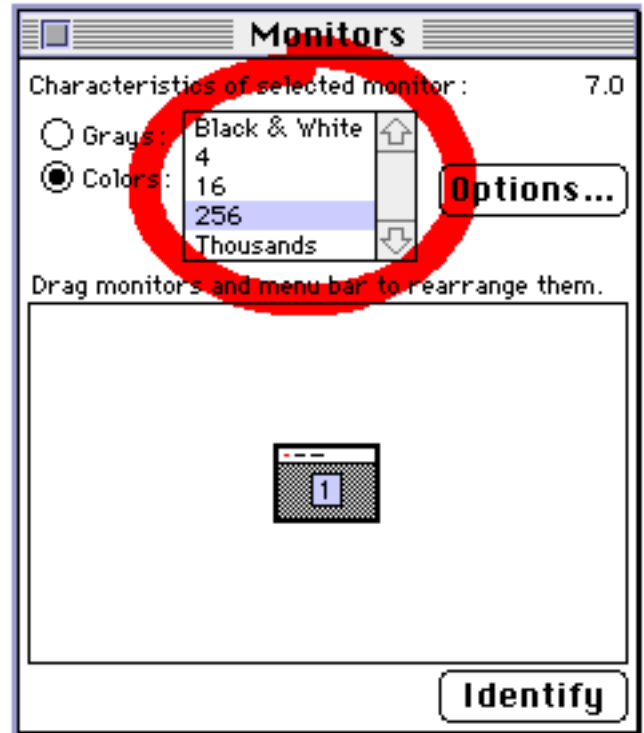
## On-screen Prompts

With Apple Guide, you can learn how to accomplish new or complex tasks by following on-screen prompts. Here is an example of how this looks:



## Coachmarks

Apple Guide also provides on-screen "coachmarks" that provide visual clues by circling or highlighting items such as menu selections. Here is an example of how this looks:



Rather than requiring you to search an electronic manual that covers an entire application, Apple Guide decides which information to provide to you based on the current context (which window is in front, what item is selected, etc.)

For example, Apple Guide automatically skips a step in a process if you have already completed that step, letting you accomplish the task more quickly. It also checks to

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make sure that you have completed the current step before moving on to the next one.

Apple Guide doesn't simply offer a text description of various tasks; instead, it prompts you with meaningful queries about specific operations. For instance, at the desktop level it offers queries that apply to Finder and system operations (How do I change the desktop pattern? How do I share a file? How do I empty the trash?) and then provides hands-on instruction for the selected task.

Apple Guide is also a standard for third-party applications and custom solutions. Since Apple Guide is built into the operating system, it will quickly become the standard way of providing help and access to advanced functionality in many application programs. Apple expects that the majority of software vendors will provide support for Apple Guide in their applications.

Applications that support Apple Guide will lead users through the steps required to perform particular operations. This is especially important as applications add more features and functionality.

In a page layout application, for instance, a user might want to know how to change a block of text to a different font or import a word processing file into a column. With Apple Guide, the user can learn the steps to complete the operation while actually performing the task and getting work done – rather than leafing through a manual or browsing through on-line help for the relevant topic or working through a tutorial.

Businesses, schools, and other organizations can reduce training and support costs by creating their own Apple Guide databases to lead users through tasks that are unique to their

company or organization. For example, a human resources department could use Apple Guide to assist employees in filling out forms electronically – guiding the user through obtaining the correct form from a network server, filling it out, and sending it to the proper electronic mailbox.

Databases can be created with Guide Maker. Apple will deliver Guide Maker tool as part of the Apple Guide Authoring Kit which is expected to be available through APDA, Apple's source for developer tools, when System 7.5 is available.

## **Compatibility**

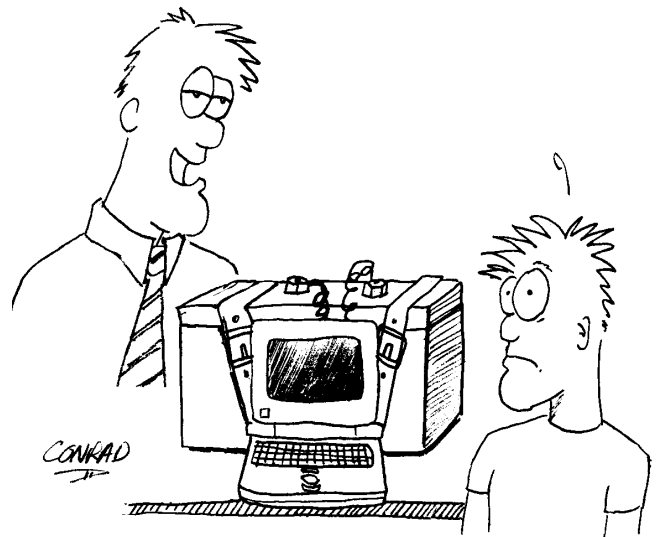
Apple Guide is compatible (can provide assistance) with System 7.5, PowerTalk, and QuickDraw GX. Application programs must be rewritten, and assistance files created in order to take advantage of Apple Guide's active assistance technology.

## **Usage Requirements**

Apple Guide requires System 7.5.

Apple expects that the majority of software vendors will provide support for Apple Guide in their applications. 🍏

### **Alternate Route • Darren Conrad**



"Yeah, it's a little bulky  
but it sure lasts a long time!"

# Mobile Computing Enhancements

This article provides an overview of utilities and enhancements for mobile computing contained in System 7.5.



System 7.5 includes a new set of utilities that extend PowerBook battery life, synchronize files between laptop and desktop systems, and offer convenience features that make mobile computing easier and faster.

## PowerBook Control Panel Features

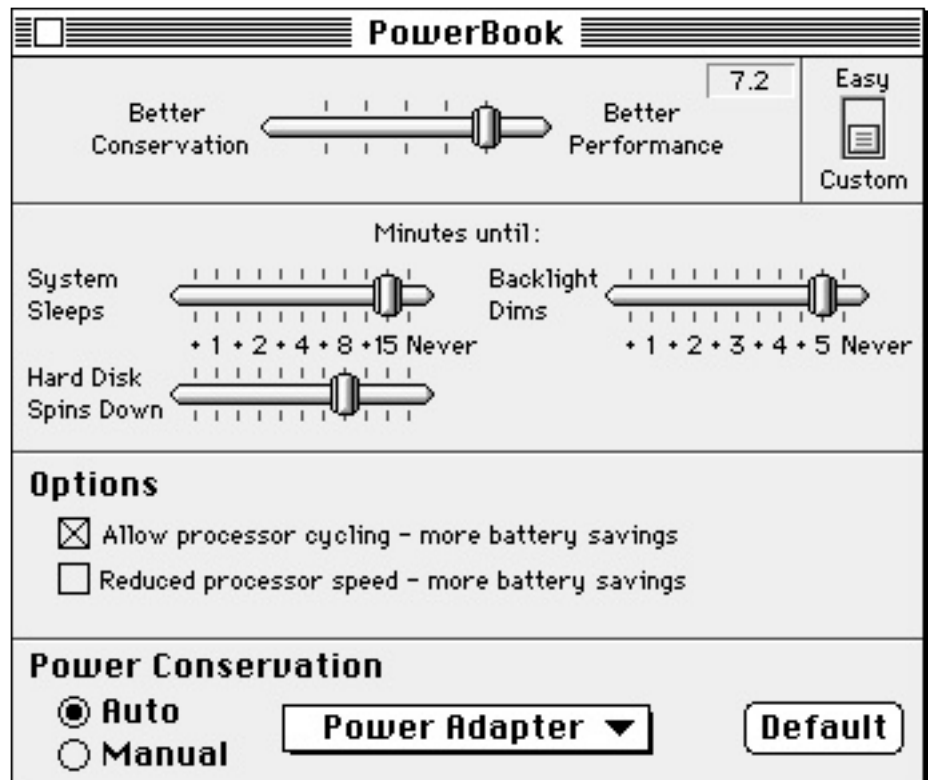
- Use the slide bar for performance tuning – slide right to increase performance; left to increase battery life.
- Set the Easy/Custom toggle switch to Custom for an even greater level of performance control. Hold down the **Option** key while choosing Custom to access and set the processor cycling option.
- Set Power Conservation to **Auto** to have the PowerBook determine which set of predetermined settings to use.

## Extended battery life

The PowerBook Assistant gives you increased hours of battery life by providing automatic power management – switching to full performance if the PowerBook is plugged in, and full conservation if it's not. It also provides for quick and easy configuration of the PowerBook for either performance or battery conservation.

Battery management features include automatic backlight dimming and a permanent RAM disk feature that saves information between restarts and shutdowns.

The PowerBook Control Panel (illustrated below) consolidates power-management features.



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## **Consolidated Control Strip**

Because PowerBook control panels are now combined into a single control strip, you have simpler access to controls and can more easily customize your PowerBook systems. An example of this Control Strip is shown at the bottom of this page.

The Control Strip can be moved anywhere on the screen. The whole Strip or portions of it can be hidden and you can arrange the modules to fit your preferences. It includes these modules:

### **AppleTalk Switch**

Lets you switch AppleTalk on or off without going to the Chooser.

### **Battery Monitor**

Provides a visual indication of present battery charge levels, rate of battery consumption, and a digital read-out of battery time remaining. It also displays whether one or two batteries are being used and includes icons that let you know if the batteries are charged, charging, or draining.

### **File Sharing**

You can switch File Sharing on or off and change the sharing set-up.

### **Hard Disk (HD) Spin Down**

Lets you to spin down the hard disk drive with a single click.

### **Power Settings**

You can set your PowerBook system to better conservation or better performance or open the PowerBook Control Panel.

### **Sleep Now**

Lets you put the PowerBook into sleep mode with a single click.

### **Sound Volume**

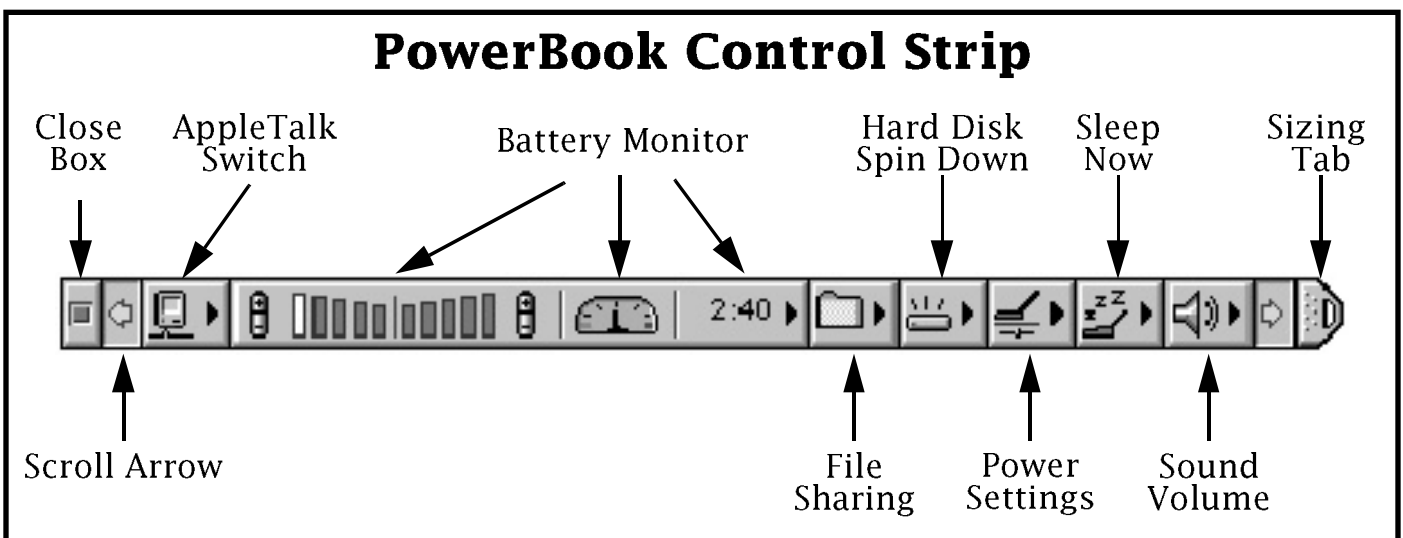
By clicking on the Control Strip's sound icon and selecting the volume, you no longer need to resort to the Control Panels.

### **Video Mirroring**

Lets you switch video mirroring on or off without going to the Control Panels. (Icon available only when a PowerBook is attached to an external monitor).

### **File synchronization**

The PowerBook File Assistant automatically synchronizes files between PowerBook computers and other Macintosh systems. It gives you the freedom to work with your PowerBook whenever and wherever you want without worrying about whether you have the most current version of a



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document. The PowerBook File Assistant keeps any two files, folders, or disks synchronized – locally, over a network, or using a diskette. It provides “drag and drop” set up and lets you select automated or manual synchronization of data. Synchronization can be one-way or bi-directional.

### **Convenience features**

Other built-in utilities queue up documents to print as soon as the PowerBook is connected to a printer and improve mouse tracking by enhancing cursor visibility. A sleep key puts the PowerBook into sleep mode when not in use to preserve battery life. When it comes out of sleep, hard disks and servers are automatically remounted.

### **PowerTalk for PowerBooks**

Because PowerTalk software enables collaboration, it is especially useful for those of you who need to communicate with others, whether or not you are connecting to a local area network, a

public e-mail service, or directly to another Macintosh computer. Even if you aren't part of a network, you can install PowerTalk Personal Gateway Software (available from third parties) to get easy access to fax, pager, and e-mail services, as well as the Internet.

PowerTalk puts everything you need to communicate in one place. You can organize information needed to collaborate — such as electronic addresses, phone and fax numbers, and supporting notes — in easy-to-access catalogs that you can take with you wherever you go. Your DigiSign “signer” can also travel with you, enabling you to approve and verify documents – even when you are on the road.

PowerTalk was specifically designed those of you who frequently connect to a network, work off-line, and then reconnect at a later time. With PowerTalk, you can quickly and easily copy mail from a server, read it off-line, and compose replies. When you reconnect to the network, all messages are sent automatically. 🍏

## **New Places to Find the Information Alley**

- Apple Computer – World Wide Web (WWW) Server

Enter this Universal Resource Locator (URL) to your WWW browser:  
**<http://www.info.apple.com/info.alley/info.alley.html>**.

- America Online

Easy new path: Go to keyword **QUICKFIND**. Enter **Information Alley** in the list box at the bottom where it says “List files with these words reflecting my interest”. Select the **List Matching Files** button.

- eWorld

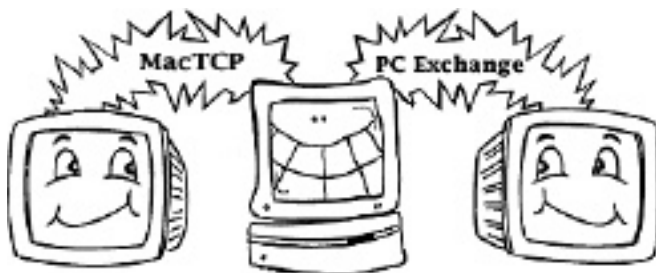
New path is: **Computer Center** → **Apple Customer Center** → **Quick Answers** → **Tips and Tools from the The Information Alley** (Shortcut to Quick Answers is **tech info**).

- **magnet** – The Personal Online Source BBS (Vienna, Austria) – **+43-1-522-7-225**

Runs on SoftArc's FirstClass software. A multiline system accessible through telnet (**magnet.at**; IP number: **193.80.248.21**). For magnet info write to: **info@magnet.at**. The Information Alley is in the **News/Apple Magazines** folder. 🍏

# System 7.5 DOS/TCP Compatibility

Macintosh PC Exchange and Macintosh Easy Open are a set of utilities that let ProDOS, MS-DOS, Windows, and OS/2 data files be opened and edited with compatible Macintosh applications. They work in tandem to let you efficiently exchange data with users on these other platforms.



## **Macintosh PC Exchange**

Macintosh PC Exchange lets you insert a DOS-formatted disk into an Apple SuperDrive and view the disk's contents from the Macintosh desktop – just as if the floppy came from another Macintosh system. When you double-click on a DOS or Windows file to open it, Macintosh Easy Open automatically searches for applications and file translators that are capable of opening it and lists the applications for you. Once an application is selected, Macintosh Easy Open manages the translation and opening of the file.

If you have a Power Macintosh system, with System 7.5 you can have an additional level of compatibility with DOS and Windows via emulation provided by SoftWindows from Insignia Solutions. SoftWindows is a native PowerPC application that emulates an Intel x86 processor and lets you run DOS and Windows applications on your Power Macintosh on top of the standard Macintosh operating system.

As a DOS and Windows user you can retain your investment in DOS and Windows data and take advantage of all the additional capabilities of the Power Macintosh platform.

## **MacTCP**

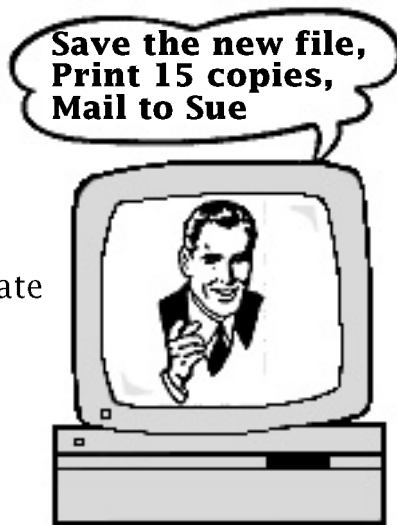
Besides offering built-in AppleTalk networking, Apple has consistently provided compatibility with all major networking and enterprise systems. Apple builds Ethernet and Token Ring connectivity into its Macintosh systems and also supports a range of options for connecting with networks supporting IBM's SNA, Digital Equipment Corp.'s DECnet, Novell's IPX, and the TCP/IP and OSI protocols.

With System 7.5, Apple is now building in support for TCP/IP (Transmission Control Protocol/Internet Protocol), a major communications protocol for UNIX networking that is implemented pervasively in the higher education and research communities. It is also the standard protocol for the Internet communications network.

TCP/IP networking protocols let multivendor computers communicate or connect with each other over a network. MacTCP, which has been sold standalone as Apple's standard software implementation of TCP/IP, lets you use your Macintosh to access information on Cray supercomputers, UNIX and Sun workstations, VAX systems, and a variety of hosts. Building MacTCP into System 7.5 assures that TCP/IP support is readily accessible to the broadest base of Macintosh customers. 🍏

# Scriptable Finder with *AppleScript*

With the System 7.5 operating system, Apple now builds in its AppleScript scripting technology to let users automate routine or complex tasks – offering the broadest range of scripting options available.



Using AppleScript's "Watch Me" feature in supported applications, you can automate any series of actions – such as reformatting a document or recalculating a spreadsheet. You can also use scripting to easily build custom solutions by combining the most useful features of several applications – for instance, a word processing program could be scripted to automatically retrieve information from a customer database and an accounts payable module to generate a dunning letter.

As of early 1994, 80 software developers announced support for AppleScript, including Microsoft, Claris, Aldus, ACIUS, Deneba, Great Plains, Symantec, WordPerfect, Alladin Systems, CE Software, and UserLand. By providing "scriptability", their applications can be linked to each other – and with the Macintosh Finder – via scripts.

## **Scripting Desktop Functions**

With System 7.5, the Finder also becomes "scriptable", meaning that you can now automate system tasks with your scripts. The Scriptable Finder

provides full Object Support Library support to the Macintosh Finder, letting the Finder be scripted and recorded. For instance, using AppleScript and the desktop functions of the Finder, you could create a script that backs up a hard disk onto a server. Taking advantage of the Scriptable Finder, you could also create a script that sets up a File Sharing "drop" folder, automatically enabling File Sharing, specifying privileges, and creating a folder that can be shared.

Using AppleScript to script the Finder along with scriptable applications, you could automate the process of updating a weekly report. The script could retrieve and open the report template from a departmental server and then go onto the administrator's hard disk and open the most recent budget spreadsheet, selecting this month's figures and copying them directly into the report.

The script could then enter today's date in the report, open the PowerTalk "mailer" attached to the report document, identify people on several different mail services to whom it should be sent, and send it. Once sent, the script can do a "Save As" and name the report with the current date, saving it in an archive folder on the server.

## **Improvements Over Previous Finder/AppleScript Capabilities**

The Finder Event Suite provided with the 7.0 Finder is inadequate for all but the most basic of scripting needs. Providing a Scriptable Finder is the most compelling thing that Apple could do to leverage the power of AppleScript and speech-recognition software.

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## **Scriptable Finder Components**

The following are components of the Scriptable Finder:

- Full scriptability and recordability of all Finder functions. You can write scripts that can do anything that could be accomplished using the standard point-and-click interface currently supported by the Finder. You create sample scripts by turning on recording and using the standard point-and-click interface.
- The Shutdown Items folder found in the System Folder. Items in this folder are automatically run when the system is restarted or shutdown. You may place a custom script in this folder and have it run whenever you shut down your Macintosh. For example, if you have scripts in the Startup Items folder that logs onto servers, creates folders, and copies files, your “Shutdown” scripts could archive these folders and delete them from your desktop.
- Through scripting, the Finder can provide services to third-party applications.

## **Events and Objects Supported By the Scriptable Finder**

### **Events**

In addition to supporting a variety of constructs from the Core suite, the Finder suite defines Apple events for

- Cleaning up icons
- Ejecting disks
- Emptying the Trash
- Putting away icons
- Restarting a computer
- Shutting down a computer
- Putting a Macintosh Portable or PowerBook computer into sleep mode

## **Objects**

The following objects are supported by the Scriptable Finder:

- Finder aliases
- The Finder application
- Application files
- Containers such as folders and disks
- Windows for Finder containers
- Control panels
- Desk accessories
- The desktop
- Disks
- Document files
- Files
- Folders
- Font files
- Gestalt information
- Info windows
- Keyboard layouts
- Processes
- Script resources
- Sound files
- Suitcases
- The Trash

AppleScript first became available as part of the operating system in System 7 Pro in October, 1993. With System 7.5, AppleScript becomes available to all System 7 users.

## **The AppleScript Scriptor's Kit**

System 7.5 includes AppleScript enabling technology to run AppleScripts on your system. However, if you want to create your own scripts, you need to purchase the AppleScript Scriptor's Kit (M1730LL/A), which includes documentation, sample programs, and a third part interface builder. The AppleScript Scriptor's Kit is available where other Apple software is sold. 🍏

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Type of computer(s) \_\_\_\_\_

Primary software applications: \_\_\_\_\_

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