

SoftWindows 98 Installation and User's Guide



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Conventions

For clarity this guide uses the following typographical conventions:

<i>This style</i>	<i>Refers to this</i>
COMPUTER	Anything you type, exactly as it appears.
bold	Names of items that appear on the screen.
	Return or Enter key.
 ,  ...	Other special keys on the keyboard.
<i>italics</i>	References to other sections of the guide.

The following symbols identify special instructions:

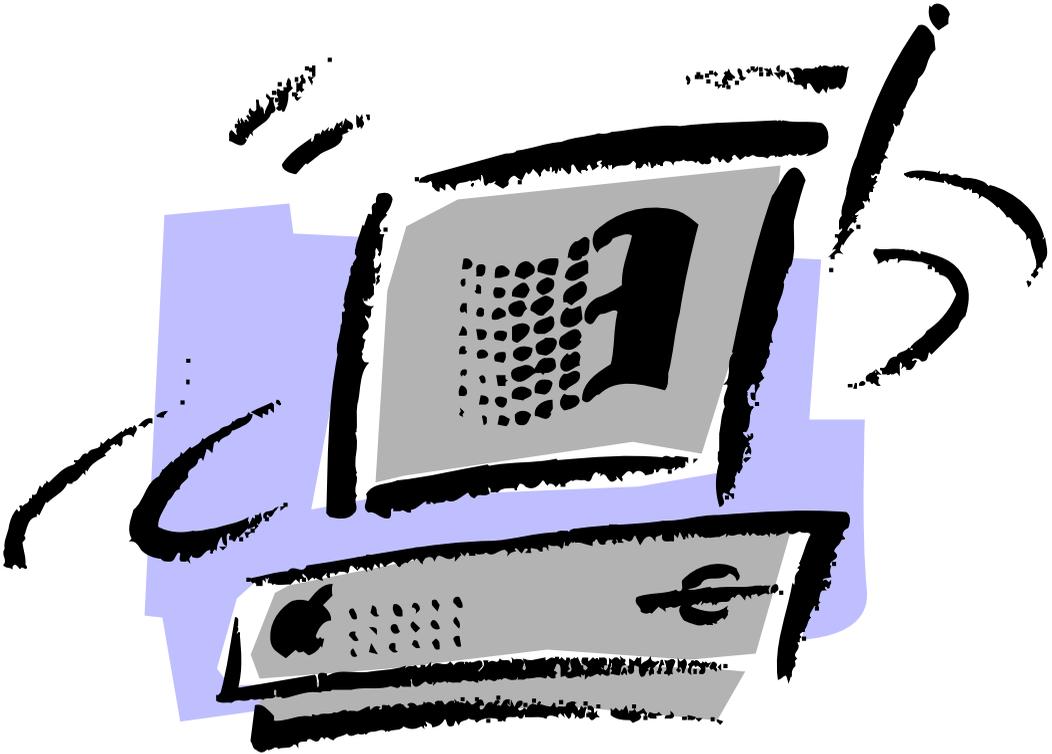
<i>This symbol</i>	<i>Refers to this</i>
	A step in a procedure.
	An item in a list of alternatives.

Abbreviations

This guide uses the following abbreviations:

<i>This abbreviation</i>	<i>Refers to this</i>
Insignia	Insignia Solutions.
DOS	Disk Operating System for the IBM PC or compatible.
Macintosh	A PowerPC processor-based Macintosh computer.
PC	An IBM PC or compatible computer.
Windows	Microsoft Windows 98.
SoftWindows 98	SoftWindows 98 version 5.0.4.

Introduction



Welcome to SoftWindows 98, the software that enables you to run PC programs and applications on any Power Macintosh, including G3, PowerBook and iMac.

Read this Introduction for a quick overview of the features of SoftWindows 98, then turn to [Chapter 1 \(page 5\)](#) to get started.

What is SoftWindows 98?

SoftWindows 98 emulates a Pentium MMX PC, allowing you to run Windows applications and games alongside your existing Macintosh applications.

It will perform all the tasks you would expect from a PC. The faster your Macintosh, the faster the performance of SoftWindows 98.

Includes Windows 98

SoftWindows 98 has Windows 98 pre-installed, so you can immediately run Windows applications on your Macintosh.



Active Desktop

SoftWindows 98 allows you to use the Windows 98 Active Desktop to easily access and manipulate PC files on the Internet and to view files on your PC in an Internet-browser environment.

This guide includes a brief introduction to Windows 98 ([Chapter 3, page 37](#)) to help you get started. For more information about SoftWindows 98, you can use the SoftWindows 98 Apple Guide help or Balloon Help to tell you what you need to do.

Key features of SoftWindows 98

These features of SoftWindows 98 make running PC applications on a Macintosh as easy as running your Macintosh applications:

Full integration

SoftWindows 98 is seamlessly integrated with your Macintosh. It includes clipboard linking to allow you to copy and paste graphics and text between your Macintosh and PC applications.

You can also copy data between your PC and Macintosh applications, using SoftWindows 98 file sharing. PC programs can use your Macintosh peripherals, including your floppy disk drive, CD-ROM drive, mouse, keyboard, joystick, 3Dfx graphics cards, microphone, serial ports, printers, SCSI devices, and network.

Configuring

Configuring SoftWindows 98 is easy. Changes that would require a hardware change on a PC can be made simply by changing options in the **SoftWindows 98 Setup** dialog box.

[See Appendix B \(page 95\)](#) for further details of set-up features.

Networking

SoftWindows 98 is fully network aware, and can take advantage of your Macintosh Ethernet or Token Ring connection to access other PCs on your network. SoftWindows 98 includes Novell NetWare client software. It also supports most other PC network clients, so you can communicate with common network servers such as Windows NT.

[See Chapter 4 \(page 53\)](#) for more details of networking.

SoftWindows 98 and the Internet

SoftWindows 98 includes Microsoft Internet Explorer and several Internet utilities to allow you to access the World Wide Web from SoftWindows 98, and to download PC files from the Internet.

[See page 33](#) for details of using SoftWindows 98 with the Internet.

Easy to use

SoftWindows 98 is easy to use, in most cases easier than a real PC. And you can copy information between PC and Macintosh applications using drag and drop.

[See Chapter 3 \(page 23\)](#) for details of running SoftWindows 98.

Key features (cont.)

Sound Blaster and joystick support

SoftWindows 98 supports Sound Blaster Pro and Sound Blaster 16, the sound cards supported by most PC games and music applications. SoftWindows 98 also allows you to use a Macintosh joystick with PC games and applications that support a joystick.

Display

SoftWindows 98 includes a special Windows display driver which gives enhanced display performance, and allows you to re-size the Windows display whenever you want to.

Drag and drop

SoftWindows 98 supports Macintosh drag and drop, allowing you to copy text/graphics between PC and Macintosh applications, simply by dragging the selection with the mouse.

MMX support

SoftWindows 98 includes MMX support, allowing you to run PC multimedia applications and games that take advantage of MMX.

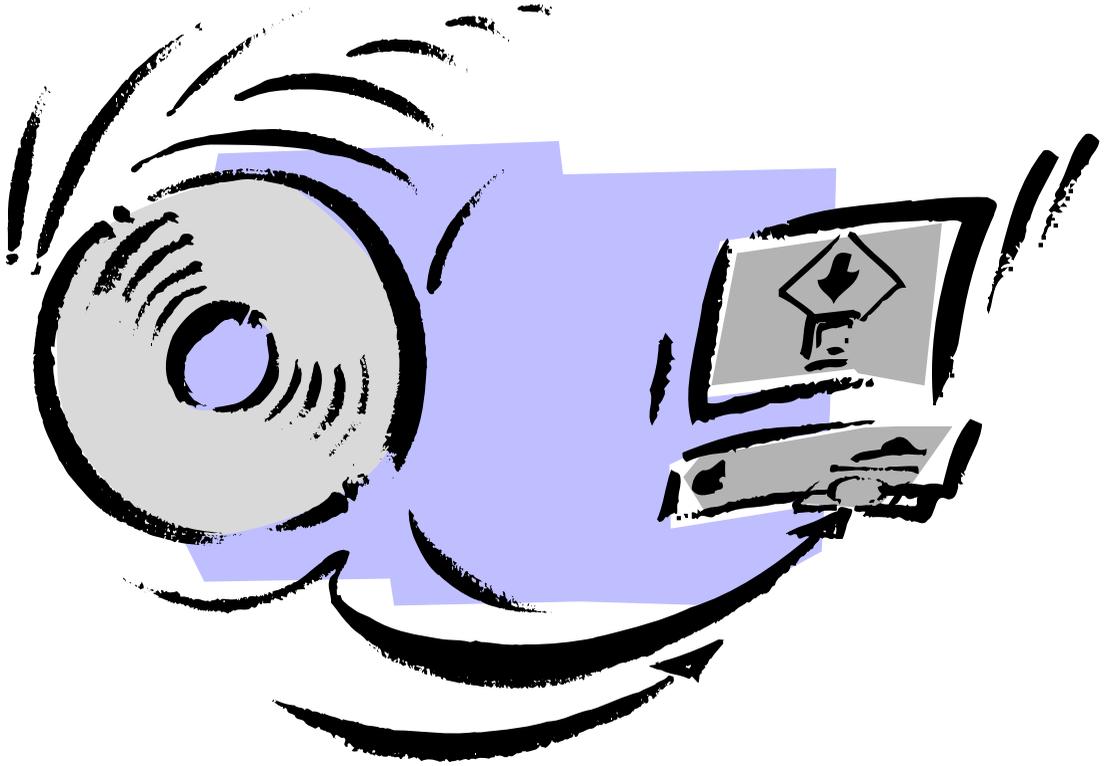
EasyLaunch and TurboStart

SoftWindows 98 includes the EasyLaunch feature to let you run a PC application by double-clicking an icon on your Macintosh. Combined with the TurboStart feature which allows you to start Windows almost immediately, SoftWindows lets you run PC applications quicker and more easily than from a PC.

Requirements

<i>Feature</i>	<i>Requirements</i>
Macintosh	Any Power Macintosh, including G3, PowerBook and iMac.
System	System 7.1.2 or later.
Memory	32 Mbytes recommended.
Hard disk space	300 Mbytes.
CD-ROM drive	Any Macintosh compatible CD-ROM drive.

Chapter 1: Installing SoftWindows 98



This chapter describes how to install SoftWindows 98 on your Macintosh (see next page), and how to enter Windows 98 start-up information ([see page 9](#)).

[See page 12](#) for instructions on how to register SoftWindows 98, to gain free warranty support.

[See page 18](#) for details of extra utilities available with SoftWindows 98.

Installing SoftWindows 98

SoftWindows 98 is supplied on two CD-ROMs.

■ The Installation CD-ROM

This contains files to install SoftWindows 98.

■ The WIN98DATA CD-ROM

This contains the Windows 98 operating system itself.

If your Macintosh does not have a CD-ROM drive you can connect an external CD-ROM drive, or use file sharing to connect to a Macintosh with a CD-ROM drive. Alternatively, a PowerBook can use SCSI disk mode to connect it to a Macintosh with a CD-ROM drive. Refer to your Macintosh documentation for more information about these options.

If installation fails, set the **Extensions Manager** control panel **Selected Set** to **Mac OS 8.0 all** (or equivalent) and then try installing again.

To install SoftWindows 98

SoftWindows 98 includes an installer which automatically installs all the files you need.

You will need about 300 Mbytes of free disk space for the default installation.

1 Read the ReadMe file

➤ Insert the SoftWindows 98 installation CD.

Before proceeding, you should double-click the **ReadMe SoftWindows** icon on the installation CD-ROM for any important information that it was not possible to include in this guide.



ReadMe SoftWindows

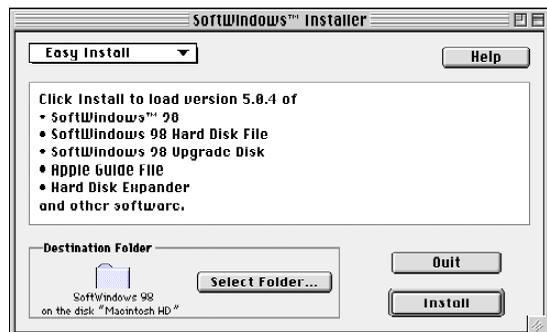
2 Run the installer

➤ Double-click the Installer icon ().

The SoftWindows 98 welcome screen is displayed:



➤ Click **Continue...** to see the **Easy Install** box:



By default, SoftWindows 98 is installed into the folder **“SoftWindows 98”** on your startup disk.

➤ Click **Select Folder...** if you want to install SoftWindows 98 in a different folder, and then click the **New**  button if you want to create a new folder for SoftWindows 98.

➤ Click **Install** to proceed with the installation.

Installing SoftWindows 98 (cont.)

3 Quit other applications

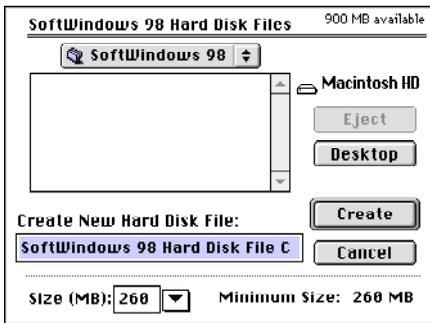
If you are installing on the startup disk, and applications are running, this box appears:



- Click **Continue** to quit from other applications before installing. You are prompted to save your work if needed.

4 Create a hard disk file

Unless you are re-installing SoftWindows 98, this dialog box allows you to create a file to act as the hard disk for SoftWindows 98:



By default, the hard disk is created with the name **SoftWindows 98 Hard Disk File C** and a size of 260 Mbytes, which is sufficient for Windows 98.

If you want to install other Windows or DOS applications, you can increase the hard disk size at this point. Refer to the user guides for the applications you want to install for help in choosing the size you need.

Alternatively you can increase the size later, using the Insignia Hard Disk Expander. [Refer to page 102](#) for details of this process.

- Select the size for the hard disk file from the **Size** pop-up menu, or type the size into the box.
- Click **Create** to create the hard disk file.

5 Change CDs

During the installation you will be prompted, when necessary, to change CDs.

- Insert the specified CD.

The installer then copies the Windows files to your hard disk, which takes several minutes.



If you are running a US version of Mac OS, a dialog box then appears, reminding you to register your copy of SoftWindows 98. Click **Continue** to proceed.

Installing SoftWindows 98 (cont.)

6 Personalize SoftWindows 98

This dialog box then appears, allowing you to personalize your copy of SoftWindows 98:

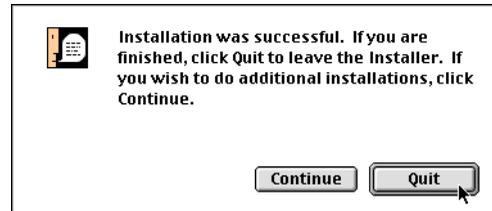
- Type in your name.
- Type in your company, or press the space bar.
- Enter the serial number from the back of the installation CD-ROM jacket.

To run a full version of SoftWindows 98, you **must** enter the correct serial number. Alternatively, click **Time Limited Demonstration** to run SoftWindows 98 without a serial number for a limited period.

- Click **OK** to save your details.

Alternatively, if you want to install SoftWindows 98 without personalizing it, click **Later**. You will then be asked to personalize SoftWindows 98 when you first run it.

This dialog box then confirms that installation was successful:



- Click **Quit**.

SoftWindows 98 is now installed.

7 Run SoftWindows 98

- Double-click the **SoftWindows™ 98** icon:



SoftWindows will now run, starting Windows 98 automatically (as described on the next page).

If you are using a US version of Mac OS, the Registration program will automatically run the first time you start SoftWindows 98. This program helps you register your copy of SoftWindows 98. [See page 12](#) for details of how to use the Registration program.

Starting Windows 98

When you first run Windows 98, you must enter installation information, as described below. After this, Windows 98 will start automatically whenever you run SoftWindows 98.

1 Enter user information

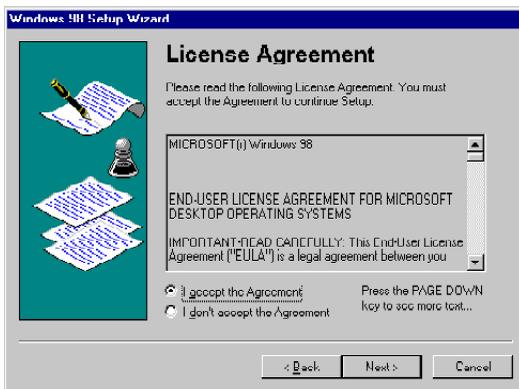
Windows 98 will display the following screen:



- Enter your name and (optionally) your company, then click **Next** to continue.

2 Agree to Licensing terms

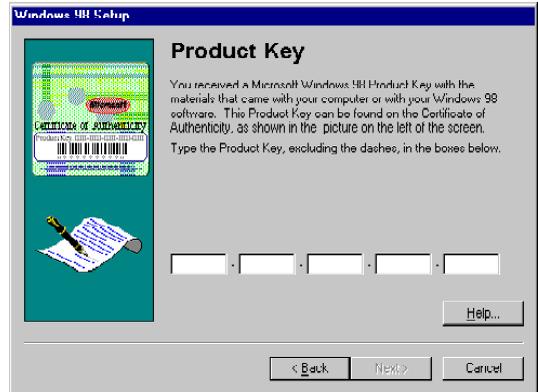
Windows 98 will display the following screen:



- Click the **I accept the agreement** box, then click on **Next** to continue.

3 Enter product key

- Enter your product key, when prompted:



Your Product Key will be printed on your Microsoft Certificate of Authenticity, which is supplied on your SoftWindows 98 box.

4 Confirm setup

Windows 98 will display the following screen:

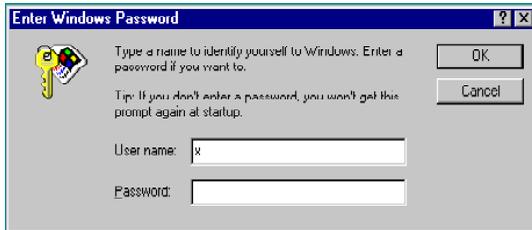


- Click **Finish** to proceed.

Starting Windows 98 (cont.)

5 Enter user name / password

- ▶ You can now optionally enter a Windows user name and password:

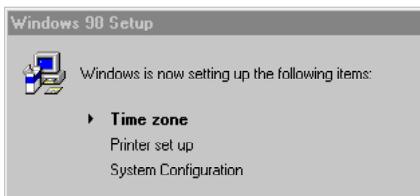


- ▶ Enter your details, then click **OK** to continue. (if you do not want to enter a user name and password, just click **Cancel** to continue).
- ▶ If you have entered a password, you are prompted to confirm it:



6 Windows 98 configuration

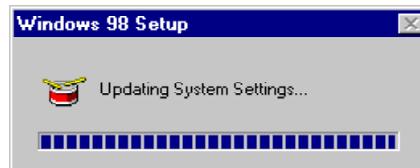
Windows 98 now runs an automatic system configuration procedure:



- ▶ First, enter the correct time zone, date and time for your location:



- ▶ Next, Windows 98 runs the **Add Printer** wizard. You do not need to run this, as SoftWindows 98 automatically sets up printer drivers for you. So press **Cancel** to proceed.
- ▶ Windows 98 now updates system settings:



Starting Windows 98 (cont.)

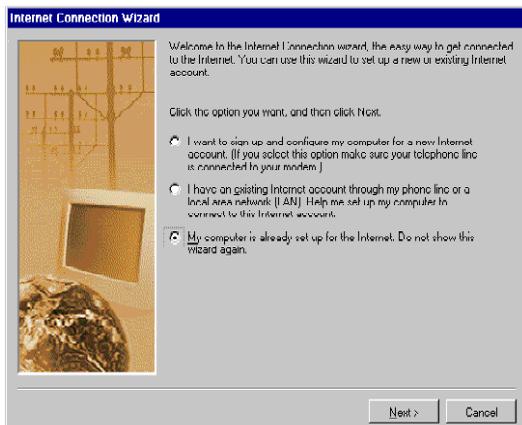
7 Welcome to Windows

The Windows desktop will then be displayed:



8 Connect to the Internet

- Click the **Connect to the Internet** icon, on your Windows 98 desktop:



- Click the button marked **My computer is already set up for the Internet**. This allows Windows 98 to use your existing Macintosh Internet connection. You should not click on either of the other two buttons.

What next?

You can now use Windows 98 - [see Chapter 3 \(page 37\)](#) for an overview of using Windows 98.

Windows 98 will now automatically run with your specified system settings when you next run SoftWindows 98.

For more details on running SoftWindows 98, [refer to Chapter 2 \(page 23\)](#).

Configuring SoftWindows 98

You can now use the SoftWindows 98 set-up options to change your system configuration, if required.

See Appendix B for details of configuring SoftWindows 98.

Restarting SoftWindows 98

To load Windows 98 almost instantly the next time you run SoftWindows 98, choose the **TurboStart** option from the **File** menu in SoftWindows 98 when you quit. [See page 25](#) for more details about TurboStart.

Registering SoftWindows 98

Registering your copy of SoftWindows 98 entitles you to 30 days of free technical support and customer service from your first call, and will also ensure that you are notified of future product upgrades.

You can use the SoftWindows 98 Registration program to make registering your copy of SoftWindows 98 as easy as possible.

The registration program only runs if you are running a US version of Mac OS. If you are using another version, please complete and return the registration card included in the package.

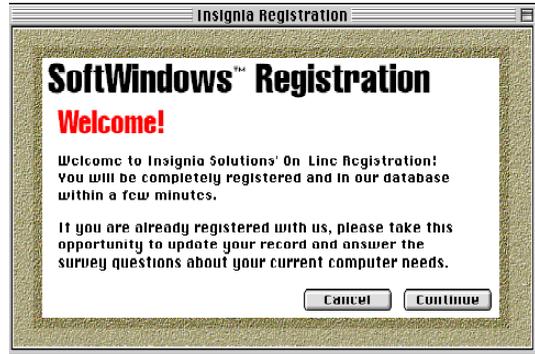
To register SoftWindows 98

Until you register your copy of SoftWindows 98, the Registration program runs automatically while you are installing SoftWindows 98, and the following title screen appears:

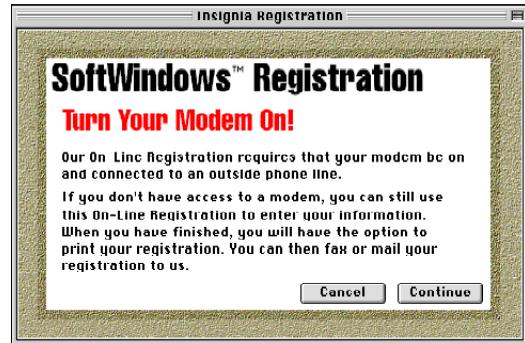


- ▶ Click **Continue** to proceed with the registration.

The **Welcome** screen then appears:



- ▶ Click **Continue** to show the following screen:



- ▶ If you are going to register by modem, turn on your modem now.

Registering SoftWindows 98 (cont.)

- Click **Continue** to display the **Contact Information** screen:

SoftWindows™ Registration
Contact Information 1 of 3

Name: John Smith State: Zip: _____
Title: _____ Country: _____
Company: Insignia, Inc. Phone: _____
Industry: Finance/Marketing/IT Fax: _____
Address: _____ E-Mail: _____
City: _____ MODEL: Power Mac G3 Des...
[Cancel] [Next]

Your name and company will already have been filled in from the data you entered earlier, but you can change these if you wish.

- Complete the screen with your name and address, and your other contact information, so that we can keep you updated with information about SoftWindows 98.
- Click **Next** to display the **Additional Information** screen

SoftWindows™ Registration
Additional Information 2 of 3

What type of work do you do?
Other
If other, please specify _____
What three PC programs will you run most often?

[Previous] [Cancel] [Next]

- Complete the screen with the requested information.

- Click **Next** to display the **Purchasing Information** screen:

SoftWindows™ Registration
Purchasing Information 3 of 3

How did you purchase your Insignia Solutions' product?
Catalog
When did you buy SoftWindows?
Don't Know
of Macs at this site? 1 # of DMG boxes at this site? 8
[Previous] [Cancel] [Next]

- Select your answers from the pop-up menus.
- Click **Previous** to review your other information, or **Done** when you have completed all three information screens.
- Select your method of sending registration information:

SoftWindows™ Registration
Send Data Simply follow the steps below to send us your information.

1. Choose Your Method To Register:
 Modem with VDU number
 Create Email TEXT file
Printable Forms:
 Fax Form
 Mail Form

2. USA/Canada - Toll Free Registration

3. Modem Settings
Modem Connected To: Modem P...
If you must enter a number to get an outside line, enter that here: _____
[Register]

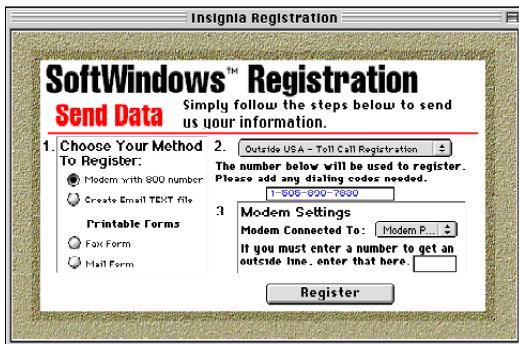
You can send registration information:

- on-line via modem (the default choice) or as a text file with an e-mail message
- via fax or mail, using a pre-printed form

Registering SoftWindows 98 (cont.)

To register via modem

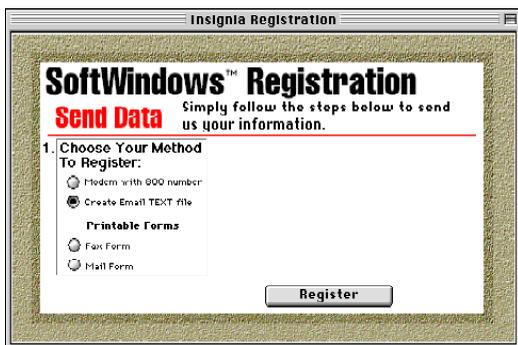
- If registering from the US or Canada, ensure that Toll-Free Registration is selected.
- If registering from outside the US/Canada, select Toll Call registration, and add the US country dialling code from your area:



- Select the correct settings for Modem Settings, then click **Register**.

To register via e-mail

- Select Create Email TEXT file., then click **Register**.



- This box then appears



- Send an e-mail message as requested.

To register via fax / mail

- Select either Fax Form or Mail Form, then click **Print**:



- When you have selected the printer click **Print** to proceed with printing the information as a single pre-addressed sheet of paper.

- Fax the information to the toll-free number specified on the sheet, or fold it as directed and mail it to the pre-printed address to complete your registration.

- To finish registration, select **Done** in the final screen.

Installing additional SoftWindows 98 options

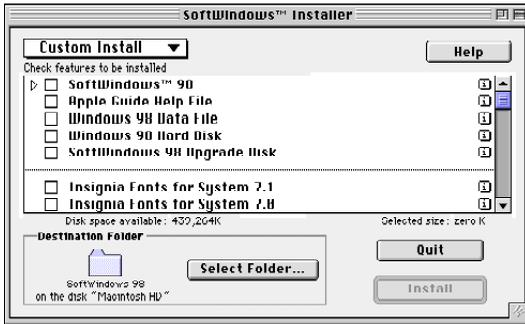
The **Custom Install** and **Custom Remove** options allow more control of installation.

To install selected files

- Run the installer and choose **Custom Install** from the installer's pop-up menu.



This dialog box shows features you can install:

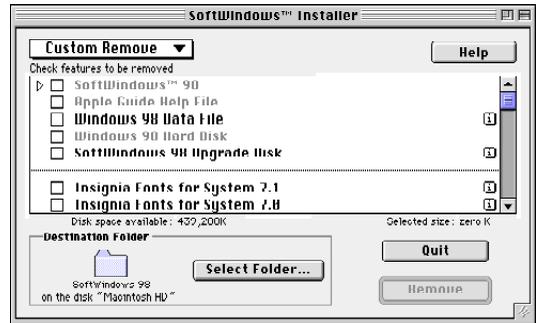


- Click the checkbox for each item to install. For more details about each item refer to the table on the next page.
- Click **Install** to install the selected items.

HD Expander is installed into the **SoftWindows 98** folder. The other utilities are installed into the **Utilities** folder in the **SoftWindows 98** folder.

To remove selected files

- Run the installer and choose **Custom Remove** from the installer's pop-up menu.

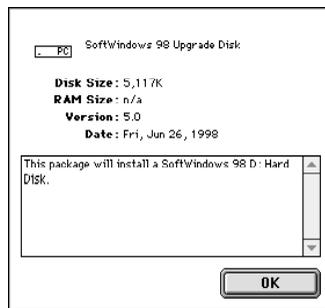


- Click the checkbox for each item you want to remove.
- Click **Remove** to remove the selected items.

To get information for an item

- Click the **i** icon, on the right of the item.

Information about the item will be displayed. For example:



Installing additional SoftWindows 98 options (cont.)

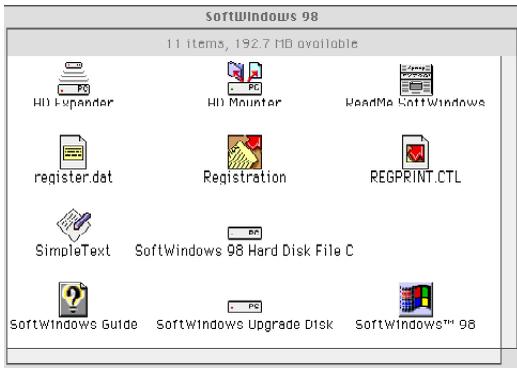
Custom install items

The table below gives information about each of the installation options:

<i>Select this option</i>	<i>To do this</i>	<i>Select this option</i>	<i>To do this</i>
SoftWindows™ 98	Install the SoftWindows 98 application	Hard Disk Expander	Install a utility to change the size of an existing hard disk file
Apple Guide Help File	Install help for use with Apple Guide.	Hard Disk Mounter	Install a utility to view the contents of a SoftWindows 98 hard disk from your Macintosh desktop.
Windows 98 Data File	Install a data file to create a C: hard disk file containing Windows 98	PowerBook Utilities	Install the ~don't rest and ~rest utilities to disable or enable the rest mode of PowerBooks, which can otherwise reduce the performance of SoftWindows 98
Windows 98 Hard Disk	Create a new C: hard disk file containing Windows 98	SharePC	Install a utility to set up SoftWindows 98 on a file server so that it can be run simultaneously by several users
SoftWindows Upgrade Disk	Create a new D: hard disk file containing the Insignia upgrade utilities	Appearance Manager	Controls the appearance of the user interface for SoftWindows 98. You do not normally need to access the Appearance Manager.
Insignia Fonts for System 7.1/7.0	Install TrueType fonts to give the correct IBM extended character set when copying or printing text from SoftWindows 98.		
Insignia Fonts for System 6	Install bitmap versions of the Insignia fonts.		
MacIPX	Install the Macintosh IPX NetWare protocol stack.		
DECnet Address Override Utility	Install a utility to enable the DECnet protocol to be used with your Macintosh Ethernet card		

The components of SoftWindows 98

The **Easy Install** option creates a folder containing the following files:



where:

- **HD Expander** is a utility to change the size of an existing hard disk file; for more information [refer to page 102](#).
- **HD Mounter** is a utility to allow you to access the contents of a SoftWindows 98 hard disk from your Macintosh desktop. [See page 100](#) for details of using the Hard Disk Mounter.
- **ReadMe SoftWindows** contains additional information about SoftWindows 98.
- **Register.dat**, **Registration** and **REGPRINT.CTL** are the registration utilities installed if you have US system software - [see page 12](#) for details.
- **SoftWindows™ 98** is the SoftWindows 98 application.
- **SimpleText** is the application used to read the ReadMe file.

- **SoftWindows 98 Hard Disk File C** is a hard disk file containing Windows 98.
- **SoftWindows Upgrade Disk** is a hard disk file containing utilities to upgrade hard disk files (from RealPC or earlier versions of SoftWindows) and install Insignia drivers.
- **SoftWindows Guide** is the Apple Guide help file.

Other files

There are a number of other files available on your SoftWindows 98 installation CD-ROM. These files are described on [page 18](#).

Other files on the installation CD

The SoftWindows 98 installation CD has several useful files for your use, which you can install.

Extras

The **Extras** folder contains a number of Macintosh utilities:

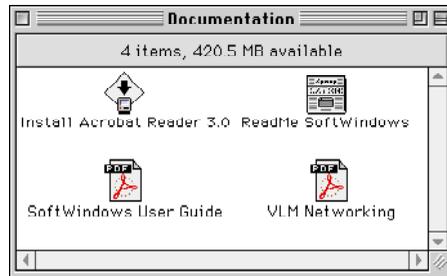
Folder	Installer for..
CD-ROM Software	Apple CD-ROM extensions to support dual-format (Macintosh/PC) CD-ROMs
EarthLink	EarthLink Network TotalAccess™ (Macintosh version), giving 30 days of free Internet access, and a suite of Internet applications. See the EarthLink Quickstart card for details of installing the software.
Internet Explorer	The Macintosh version of Internet Explorer, Microsoft's World Wide Web browser.
Open Transport 1.1.1	The Open Transport networking software, recommended for optimum performance.
QuickTime™	QuickTime PowerPlug and Musical Instruments extensions, which allow you to play MIDI files from SoftWindows 98.

Using QuickTime

The QuickTime utility is a self-mounting **.smi** file, which automatically mounts on the Macintosh desktop when you double-click on this file on the installation CD. To install QuickTime, double-click the **Installer** icon in the **QuickTime Installer** folder on your desktop.

Documentation

The **Documentation** folder contains the following files:



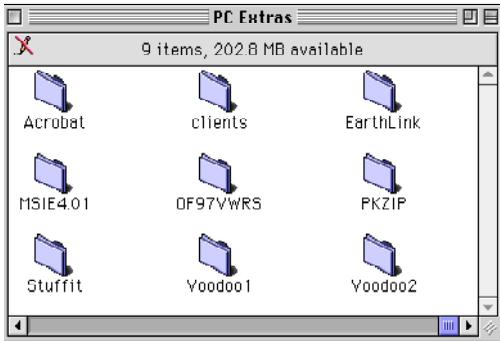
- **Install Acrobat Reader 3.0** is an installer for Adobe Acrobat on the Macintosh. For information about installing Acrobat [refer to page 21](#).
- **ReadMe SoftWindows** is a copy of the SoftWindows 98 readme file.
- **SoftWindows User Guide** is this user guide, provided as a PDF file for on-line viewing. PDF files can be viewed and printed using Adobe Acrobat Reader.
- **VLM Networking** is a separate PDF file, giving on-line instructions for networking with Novell NetWare's VLM shell.

Other files on the installation CD (cont.)

PC Extras

The **PC Extras** folder contains installers for extra utilities provided with SoftWindows 98. Apart from EarthLink, these utilities are all loaded automatically when you install a full version of SoftWindows 98 (using the **Easy Install** option). [See page 34](#) for details of using these utilities.

The **PC Extras** folder contains the following files:



where:

<i>Folder</i>	<i>Utility</i>
Acrobat	Acrobat Reader.
Clients	Novell Netware client (in the nw4clnt folder).
EarthLink	EarthLink Network utilities (Windows version).
MSIE4.01	Microsoft Internet Explorer.
OF97VWRS	Office 97 viewers.
PKZIP	PKZIP for DOS.

<i>Folder</i>	<i>Utility</i>
Stuffit	Stuffit Expander for Windows.
Yoodoo1	Glide drivers for Voodoo 1 graphics card.
Yoodoo2	Direct 3D and Glide Drivers for Voodoo 2 graphics card

[See page 124](#) for details of using graphics drivers.

To install PC Extras utilities

If for some reason you do not have access to these utilities, you can re-install them from the **PC Extras** folder on the SoftWindows 98 installation CD.

You must first set up the **PC Extras** folder as a shared folder, so you can access the files from SoftWindows 98. To do this, drag the **PC Extras** folder from the **SoftWindows 98™ Install CD**, and drop it onto the SoftWindows 98 window.

You can now access these utilities on drive E:. To install the individual utilities, see the instructions given in the following sections.

To install Clients

[Refer to page 53](#) for details of networking.

To install EarthLink

See the accompanying EarthLink Quickstart card for details of installing the Windows version of this software.

To install PKZip

► Drag-and-drop the **PKZip** folder onto your C: drive - it can then be used immediately.

Other files on the installation CD (cont.)

To install Acrobat Reader, Microsoft Internet Explorer, or Stuffit

- ▶ Double-click the **My Computer** icon on the Windows desktop.
- ▶ Double-click the **E:** drive icon.
- ▶ Double-click the appropriate folder icon.
- ▶ Double-click the utility's installer icon.
- ▶ When the **License Agreement** dialog box appears click **Yes**.
- ▶ If asked which components of the utility you want to install, click **Yes** to install all components.
- ▶ If asked where you want to install the utility, click **OK** to accept the default location.

The utility is then installed.

- ▶ When asked if you want to restart your computer, click **Yes** to restart SoftWindows 98.

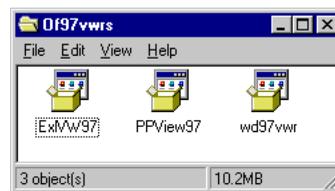
To install Voodoo drivers

We have pre-installed Voodoo 1 Direct 3D and Glide drivers with SoftWindows 98.

[See page 124](#) for details of installing graphics drivers in Windows 98.

To install the Microsoft Office 97 viewers

- ▶ Double-click the **My Computer** icon on the Windows desktop.
- ▶ Double-click the **E:** drive icon.
- ▶ Double-click the **Of97vwrs** folder icon to open the **Of97vwrs** folder:



- ▶ Double-click the appropriate installer icon: **ExlVW97** for Excel, **PPView97** for PowerPoint, or **wd97vwr** for Word.

The necessary installation files are copied to your hard disk, and the setup program then runs.

- ▶ When asked where you want to install the viewer click **OK** to accept the default location.
- ▶ Read the license agreement and click **Accept** to proceed.
- ▶ When the installation dialog box appears click the **Install** button to start the installation.

The viewer is then installed.

To run the Microsoft Office 97 viewers, click the **Start** button, point to **Programs**, and then click the appropriate viewer.

Upgrading files and applications for Windows 98

If you have previously used a product such as SoftWindows 95, you can re-use all your old applications and data with SoftWindows 98.

To access applications

The best way to access applications is to re-install them under Windows 98. This will ensure there are no incompatibility problems.

To access data

If you have data files you wish to access, you can easily gain access to these from SoftWindows 98.

The best way to access these files is to set up your old Insignia Hard Disk file as drive D:, as [described on page 101](#). You can then access and use individual files on that hard disk.

You can also use the Hard Disk Mounter to list and access files on a previous hard disk file - [see page 100](#) for details.

Alternatively, you can upgrade your hard disk file. This allows you to run your old hard disk with SoftWindows 98, to take advantages of SoftWindows 98 features.

For example, you can run a SoftWindows 95 hard disk file from SoftWindows 98. This would run Windows 95, but would have all the extra SoftWindows 98 features (such as support for Voodoo graphics cards).

This process is described in the next section.

To upgrade your hard disk file

- ▶ Drag-and-drop the hard disk file from its existing folder onto the **SoftWindows™ 98** icon:



- ▶ SoftWindows 98 will now start up, and perform the rest of the upgrade process, installing SoftWindows 98 drivers for your old PC operating system.

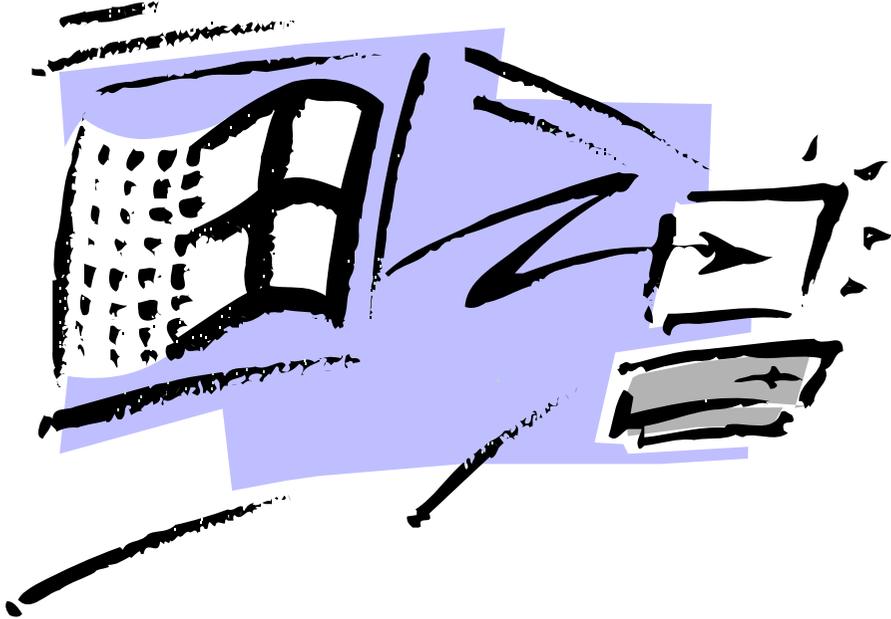
Upgrading an existing hard disk file does not install the additional Internet utilities provided with SoftWindows 98.

To install these utilities, [see page 18](#).

- ▶ Click **Continue** to proceed.



Chapter 2: Running SoftWindows 98



This chapter describes how to run SoftWindows 98, and use it to run Windows applications on your Macintosh.

You can also configure your copy of SoftWindows 98, to provide emulation for PC devices and to optimize performance levels. See Appendix B for details of configuring SoftWindows 98.

Running SoftWindows 98

When you run SoftWindows 98 you get a PC in a window on your Macintosh, so that you can run PC applications at the same time as using your Macintosh applications.

To run SoftWindows 98

- ▶ Double-click the **SoftWindows™ 98** icon.



Windows 98 will start up, and after the welcome screen the Windows 98 desktop will be displayed. Windows 98 is then ready to use.

To ensure you can start up your next session of Windows 98 as quickly as possible, you should select TurboStart to quit SoftWindows 98 - [see page 25](#).

Running Windows 98

For information on running Windows 98, refer to Chapter 3.

To run SoftWindows 98 with a specific startup hard disk file

- ▶ Drag the hard disk file icon and drop it onto the SoftWindows 98 icon.



The hard disk file will be set up as drive C:, overriding the setting in your SoftWindows 98 preferences.

For example, you can have two hard disk files, containing different applications, or different PC operating systems. In that case, you can use this method to select which one you use.

Quitting and restarting SoftWindows 98

To quit SoftWindows 98 with TurboStart

The **TurboStart** option saves your work so that Windows loads instantly the next time you run SoftWindows 98.

This also allows you to continue work in the applications you were previously using, allowing you to continue where you left off.

- Choose **TurboStart** from the **File** menu.

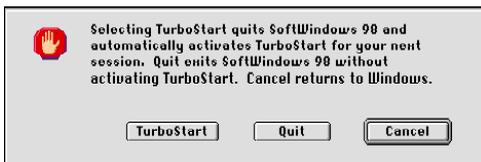


Please note that TurboStart requires additional space on your Macintosh hard disk of 1 Mbyte more than the PC memory setting.

To quit SoftWindows 98

- Close any open Windows applications.
- Choose **Quit** from the File menu.

This dialog box lets you confirm that you want to quit:



- Click **Quit**.

When you next run SoftWindows 98, Windows will be restarted in the usual way.

To restart SoftWindows 98

- Close any open Windows applications.
- Choose **Restart SoftWindows 98** from the **Setup** menu.

This dialog box warns you that work can be lost if you have not exited from PC applications or saved files before restarting:



Click **Cancel** to cancel the command or **Restart** to restart SoftWindows 98.

Getting help

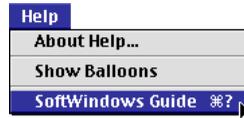
SoftWindows 98 includes Apple Guide help, to give you step-by-step instructions on the most important features of SoftWindows 98 as you work.

The Apple Guide help uses the SoftWindows 98 Guide file in the SoftWindows 98 folder on your hard disk.

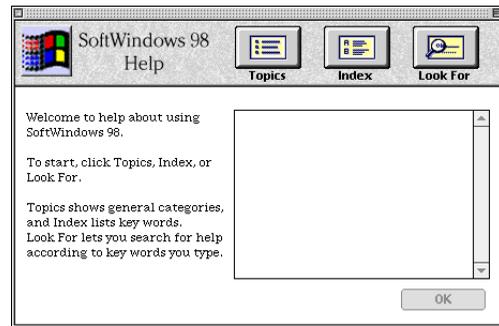
SoftWindows 98 also includes Balloon Help, which gives a brief explanation of each of the SoftWindows 98 menu commands and dialog boxes.

To use Apple Guide

- Choose **SoftWindows Guide** from the help menu:



The SoftWindows 98 Help window appears:



- Click one of the following buttons to choose what you want to do:

<i>Click this</i>	<i>To do this</i>
	Choose from a list of topics, organized by subject.
	Look up a topic in an alphabetical list.
	Type in the topic you need help with.

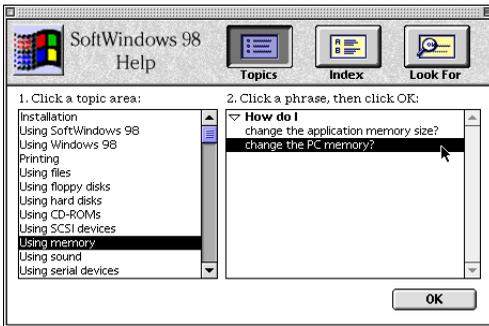
Getting help (cont.)

To choose from a list of topics

- Click **Topics** in the **SoftWindows 98 Help** window.

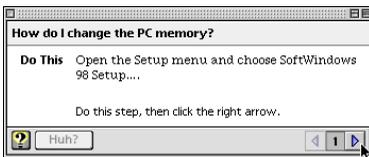
A list of topic areas is displayed.

- Select a topic area to display a list of topics, and then select the phrase you want to know about:



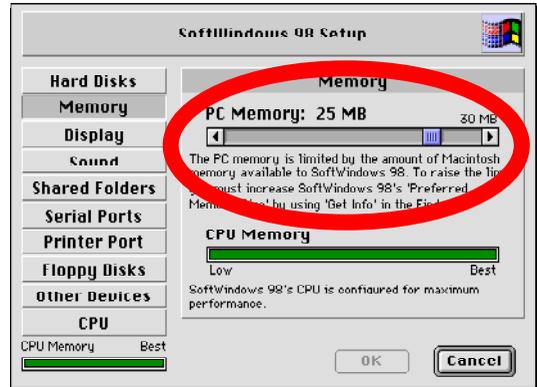
- Choose **OK** to see help.

The help consists of a series of panels, which tell you what to do:



- Follow the instructions on each panel.

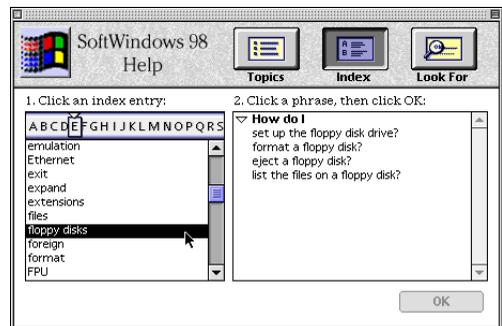
Where appropriate, areas of the screen will be highlighted to help you:



- When you have finished click the close box to exit from Apple Guide.

To choose a topic from the index

- Click **Index** in the **SoftWindows 98 Help** window to display the help index.

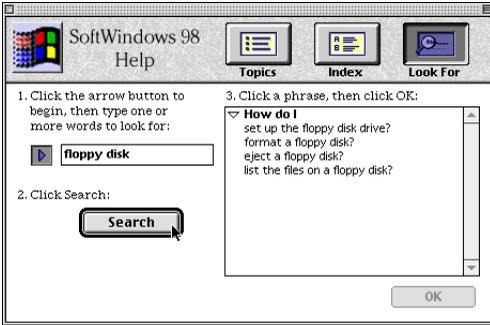


- Move the marker to the initial letter you are interested in.
- Select an index entry to display a list of topics, and then select the phrase you want to know about.

Getting help (cont.)

To look for a topic

- ▶ Click **Look For** in the **SoftWindows 98 Help** window.



- ▶ Type in the topic you want to know about to display a list of the available topics, and then select the phrase you want to know about.

To get Balloon Help

You can also use Balloon Help to give you information about the SoftWindows 98 menus, menu commands, and dialog boxes.

- ▶ Choose **Show Balloons** from the Help menu.



- ▶ To get help about an item move the mouse pointer over it.



SoftWindows™ 98

Getting help on Windows

You can also get help on using Windows, as [described on page 44](#).

Using the keyboard and mouse

SoftWindows 98 can use the various Macintosh keyboards to produce all the keys and key combinations you need to run PC applications.

The IBM 101-key keyboard

The illustration below shows the layout and keycap engravings of the 101-key US IBM keyboard emulated by SoftWindows 98.

The table on the next page lists the Macintosh keyboard keys, or key combinations, needed to produce all the keys on this keyboard that do not correspond directly to Macintosh keys.

The following keys are used by the Macintosh to enter accented characters. To enter one of these key combinations in SoftWindows 98 you need to press the key combination twice:

AltE, **Alt**I, **Alt**U, and **Alt**N.

To use a PowerBook keyboard

Some PowerBook keyboards do not have function keys or a numeric keypad.

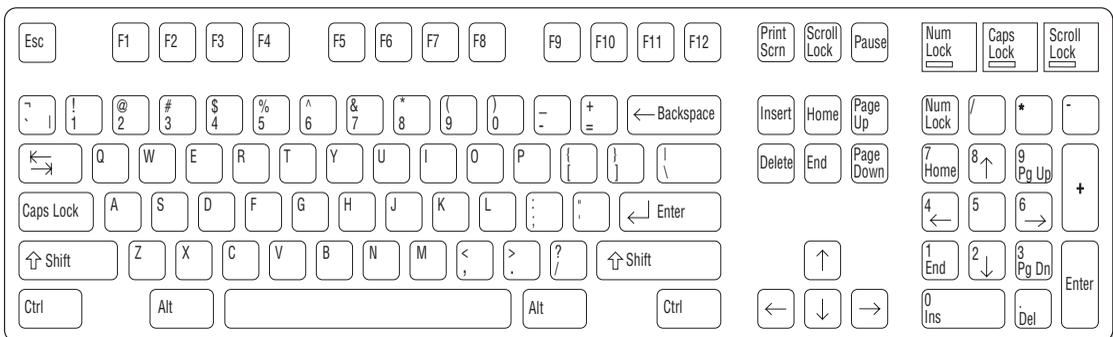
SoftWindows 98 therefore provides two special modes to enable these keys to be entered.

- ▶ Press **Fn**F to select Function mode, which lets you type function keys.
- ▶ Press **Fn**K to select Keypad mode, to let you use the PC keypad.
- ▶ Press the same keys again to cancel the mode.

The PC mouse

The PC mouse usually has two buttons.

SoftWindows 98 uses the Macintosh mouse button as the left PC mouse button. The right mouse button is obtained by using keypad = or **Fn**R (or Enter on PowerBooks).



Using the keyboard and mouse (cont.)

PC key	<i>Extended Keyboard</i>	<i>Standard Keyboard</i>	<i>PowerBook keyboard (old)</i>	
			<i>Normal mode</i>	<i>Function mode (fn/F)</i>
Alt	option	option	option	
Right Alt (Alt Gr)	right option	fn ⇐	fn ⇐	
Backspace	delete	delete	delete	
Break	control pause (F15)	control fn keypad /	control fn \	
Ctrl	control	control	control	
Ctrl right	right control	fn ↓	fn ↓	
Delete	del	fn D	fn D	
End	end	fn L	fn L	
Escape	escape	escape or fn E	escape or fn E	
fn F1 to fn F9	F1 to F9	fn keypad 1 to 9	fn 1 to 9	1 to 9
fn F10	F10	fn keypad 0	fn 0	0
fn F11	F11	fn keypad .	fn .	
fn F12	F12	fn keypad enter	fn =	
Home	home	fn O	fn O	
Insert	fn I	fn I	fn I	
Page Up	page up	fn U	fn U	
Page Down	page down	fn W	fn W	
Pause	pause (F15)	fn keypad /	fn \	
Print Scrn	print screen (F13)	fn keypad = or fn P	fn [or fn P	
Scroll Lock	scroll lock (F14)	fn keypad clear	fn]	
Shift right	right shift	fn ⇨	fn ⇨	
Right mouse button	keypad = or fn R	keypad = or fn R	enter or fn R	
<i>PC keypad key</i>	<i>NumLock off</i>	<i>NumLock off</i>	<i>Normal mode</i>	<i>Keypad mode (fn/K)</i>
Del	keypad .	keypad .		.(period)
End	keypad 1	keypad 1		1
Enter	keypad enter	keypad enter		enter
Home	keypad 7	keypad 7		7
Ins	keypad 0	keypad 0		0
Num Lock	keypad clear or	keypad clear or	fn N	fn N
numlock	numlock			
Pg Up	keypad 9	keypad 9		9
Pg Dn	keypad 3	keypad 3		3
↑	keypad 8	keypad 8		8
↓	keypad 2	keypad 2		2
←	keypad 4	keypad 4		4
→	keypad 6	keypad 6		6
/	/	/	fn /	
*	*	*	fn '	
				+
				-

Using CD-ROMs

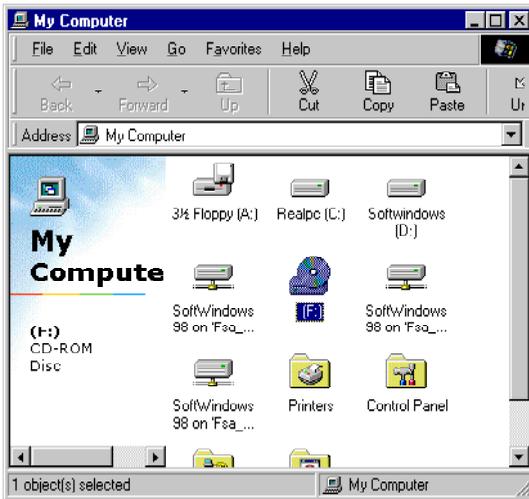
SoftWindows 98 allows you to read PC-format CD-ROMs, 3.5-inch floppy disks, and SCSI disks, using your Macintosh drives.

By default, drive F: is set up as the Macintosh CD-ROM drive, and drive A: is set up as the Macintosh internal floppy disk drive.

If you have a PC-compatible removable SCSI device, such as Zip, Jaz or SyQuest, this is assigned to drive E:.

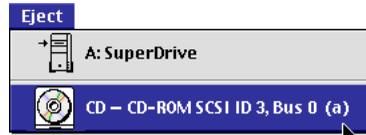
To show the files on a CD-ROM

- ▶ Double-click the [F:] CD-ROM icon in the My Computer folder:



To eject a CD-ROM

- ▶ Choose the CD-ROM drive from the Eject menu:



You may not be able to eject the CD-ROM if it is being shared, or if a file on it is in use by a Macintosh application. In this case either turn file sharing off, or close the Macintosh application.

To eject a dual-format CD-ROM you may also need to eject the Macintosh partition from the Macintosh desktop by dragging it to the Trash.

Using floppy disks and removable SCSI drives

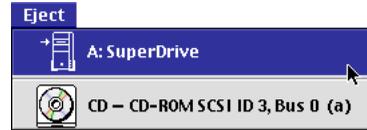
To show the files on a floppy disk

- ▶ Double-click the [A:] floppy disk icon in the **My Computer** folder:



To eject a floppy disk

- ▶ Choose the appropriate floppy disk drive from the Eject menu:

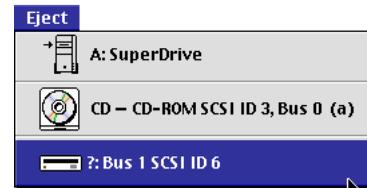


You can also eject a floppy disk by typing one of the following key combinations:

Type this	To eject a disk in
Shift 1	Internal drive 1 (applies to most Macintoshes)
Shift 2	Internal drive 2.
Shift 0	External drive.

To eject a SCSI cartridge

- ▶ Choose the SCSI drive from the Eject menu:



Using SoftWindows 98 with the Internet

SoftWindows 98 includes Microsoft Internet Explorer, built-in and pre-installed, plus several other Internet utilities.

Pre-conditions

Before running Internet Explorer:

- Ensure you have run the **Connect to the Internet** wizard, as [described on page 11](#).
- Ensure your Macintosh is connected to the Internet, either via a direct TCP/IP connection, or via a dial-up connection using PPP or SLIP.

Internet Explorer is pre-configured to work on a LAN, with no proxy server. If your Internet connection is different, you must change the Internet Explorer connection settings.

To run Internet Explorer

- Double-click the  icon.
- Internet Explorer will run and connect to the Insignia home page by default:



Insignia Internet support

You can access the Insignia technical support page via the Internet, allowing you to:

- See a list of technical support documents.
- Search for a document.
- Browse through all the titles of the technical support documents.

To get Insignia Internet support

- Click the **Support** button from the Insignia home page, to display the Support page:



Getting Microsoft support

To get support on using Windows and other Microsoft products, enter the following address in the Internet Explorer address field:

<http://www.microsoft.com/support/>

- Press .

The Microsoft support home page will then be displayed:

- Click on the button corresponding to the support topic that you are interested in.

Using Internet utilities

SoftWindows 98 includes several Internet utilities to help you work with the Internet.

These utilities are usually supplied already installed. If not, you can install them from the **PC Extras** folder on the installation CD, as [described on page 21](#).

To run these utilities from Windows click the **Start** button, then click **Programs**:



These utilities are described in the following sections.

Compressing / expanding files

These utilities allow you to compress files to save time when sending them as attachments to email, or to expand files that you have received with email or downloaded from the Internet.

PKZIP, from PKWARE, compresses and expands files using the popular .ZIP format:



For more information see the PKWARE Web site:
<http://www.pkware.com>

StuffIt Expander expands and decodes files in a variety of formats, including Stuffit (.SIT), UUENCODE (.UUE), and Binhex (.HQX):



For more information see Aladdin Systems' Web site at:

<http://www.aladdinsys.com>

Using Internet utilities (cont.)

Viewing files in different formats

A range of viewers are provided, to enable you to view files that have been downloaded from the Internet, even if you do not have the application that created them.

Xlview, **Ppview32**, and **Wordview** are Microsoft Office 97 viewers for Excel, PowerPoint, and Word. Use these viewers to display any documents in the relevant formats.

Use **Acrobat Reader** to read on-line versions of documents created in Acrobat (.PDF) format:

Playing sound files

RealAudio is a compact sound format for transmitting sound files over the Internet. RealAudio is included with Internet Explorer.

For more information contact the RealAudio Web site at:

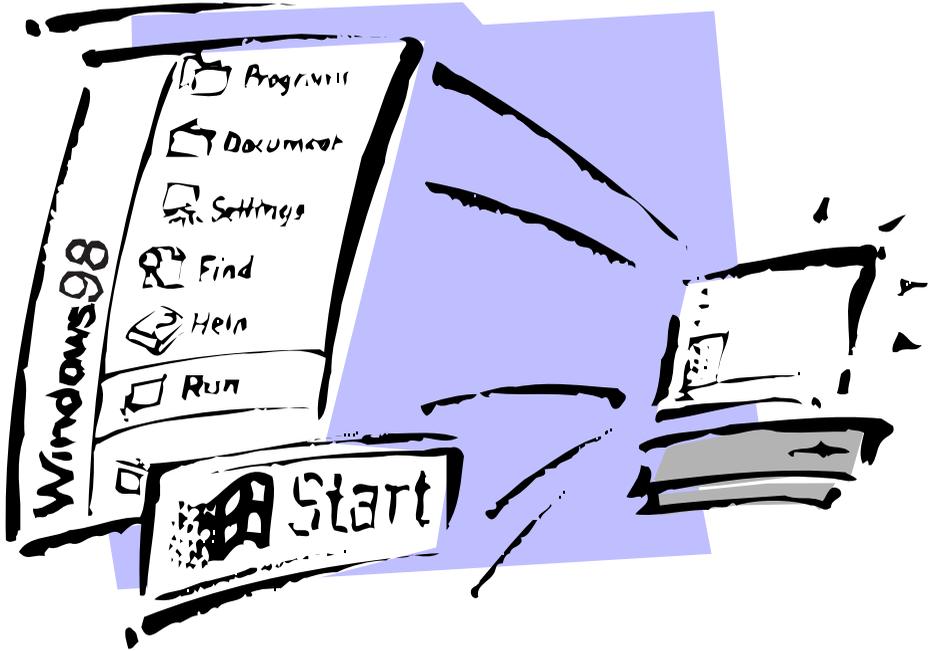
<http://www.realaudio.com>



For more information see the Adobe Web site at:

<http://www.adobe.com>

Chapter 3: Using Windows 98



This chapter explains how to work with Windows 98 and run Windows 98 applications.

It includes a short tutorial to introduce you to the procedures for working with Windows.

Running Windows 98

Windows 98 starts in seconds with TurboStart, and you can resume your work where you left off when you quit.

To use the mouse

As you move the Macintosh mouse pointer onto the SoftWindows 98 window it automatically changes to the Windows mouse pointer, so you can switch freely between Windows and Macintosh applications.

To improve performance the Windows mouse pointer is slightly reduced in size.

- ▶ Choose **Emulate PC Mouse** from the **Setup** menu if you prefer to work with the full size mouse pointer.

Graphics performance will be reduced, and the ✓ will not be displayed in the title bar, when using the full size mouse pointer.

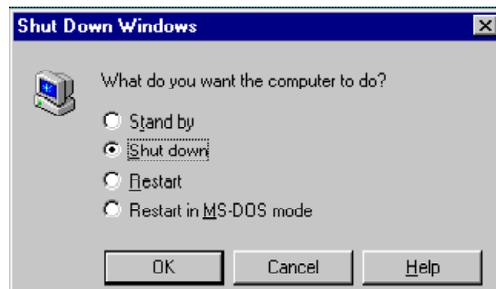
Right mouse button

To simulate the right mouse button of a PC mouse press keypad = or R (or Enter on PowerBooks).

To exit from Windows

We recommend you use either **TurboStart** or **Quit** from the SoftWindows 98 **File** menu to quit, as [described on page 25](#).

However, if you specifically want to exit from Windows, click the **Start** button, then click **Shut Down...**. You can then choose how to shut down:



- ▶ Click **OK** to choose the first option and shut down Windows.

SoftWindows 98 will then automatically quit.

Windows 98 basics

The following diagram gives a brief introduction to the most important components of Windows, showing a typical view of the Windows 98 desktop. The first time you run SoftWindows 98, the Windows desktop is displayed as shown below.

My Computer shows the drives attached to the PC.

Online Services contains demos from Internet service providers.

Internet Explorer lets you access the Internet and World Wide Web.

Minimize button reduces the window to a button on the taskbar.

Maximize button enlarges the window to fill the entire desktop.

My Documents shows your most recently-accessed documents

Network Neighborhood shows network resources

The **Recycle Bin** stores deleted files like the Macintosh **Trash**.

Use this to set up the Microsoft network.

Outlook Express is Microsoft's e-mail system.



Close button closes the window

Click the **Start** button to access the **Start** menu. (see the next page).

The **My Computer** window shows an icon for each drive attached to the PC. Double-click an icon to show the files on the drive.

The **Taskbar** shows a button for each open window; click a button to switch to the corresponding window.

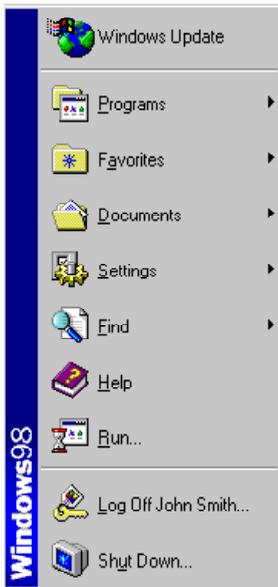
Smartcopy will automatically copy graphics and text between Windows 98 and the Macintosh. (see page 45).

Please note that a ✓ symbol appears in the title bar when the Windows desktop is running at optimum performance. For more information on optimizing SoftWindows 98, see page 96.

Windows 98 basics (cont.)

Using the Start button

Click the **Start** button at the bottom left of your Windows 98 desktop to display a menu of commands for using Windows 98:



where:

<i>Function</i>	<i>Description</i>
Windows Update	Access a central location to find Windows enhancements and new features, to keep your copy of Windows 98 up-to-date.
Programs	Displays the programs on your system, and lets you select a program to run. It also gives you access to the DOS prompt.

<i>Function</i>	<i>Description</i>
Favorites	Open favorite web sites directly from the desktop.
Documents	Displays a list of previously opened documents.
Settings	Lets you change system settings, including Active Desktop customization.
Find	Find a file or folder on your desktop. Now also allows you to search the Internet, and to search for an address.
Help	Gives help on Windows. See page 44 for details of Windows help.
Run...	Run a DOS or Windows program, or execute a command
Log off...	Log off. You can then log back on as a different user.
Shut Down...	Shuts down Windows, or exit to DOS. See page 38 for a description of quitting Windows.

Please refer to your Microsoft Windows help for further information on the Windows Start button.

Tutorial

This Tutorial is designed to help you become familiar with SoftWindows 98 by installing and running a typical Windows application, and printing from Windows.

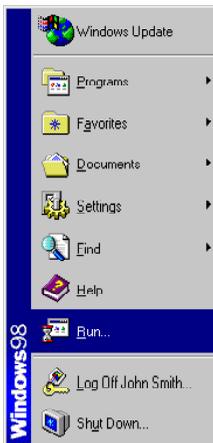
It is based on the award-winning Windows program **WinPost**, which is supplied with your SoftWindows 98 package. WinPost lets you create simple reminders which you can leave on your Windows desktop. It is a PC shareware application, so if you like it and decide to continue using it please send the author the registration fee, as described in the on-line manual.

1 Run Setup

Most Windows applications are installed by running a standard Windows setup procedure.

The installer and its associated files are supplied in the C:\WNPST directory.

- ▶ Click the **Start** button on the taskbar, and then click **Run...**



- ▶ Type: C:\WNPST\SETUP in the **Run** dialog box:



- ▶ Click **OK** to run the setup program.

2 Specify where to install WinPost

This dialog box allows you to specify the directory into which WinPost should be installed:



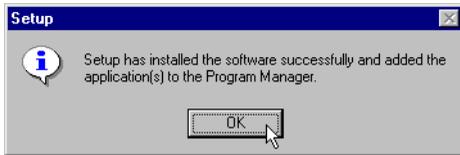
- ▶ Click **OK** to install in the WINPOST directory on your SoftWindows 98 hard disk file.

The files are then copied to the directory you specified.

Tutorial (cont.)

3 Finish the installation

This dialog box informs you when the installation is complete:



- Click **OK** to return to the Windows desktop.



The installation creates a new WinPost folder containing the following shortcuts (similar to Macintosh aliases):

- **WinPost 3.2** is a shortcut to the WinPost application.
- **WinPost Manual** is a shortcut to Winpost documentation. Double-click the icon to display the document for viewing or printing.
- **Read Me!** is a shortcut to additional information about WinPost.

When you install a Windows application, the installer usually creates shortcuts for the application, and for any other programs or documents that you might need to use with it. Often these are put in a separate folder.

For more information about the components of Windows, 98, [see page 39](#).

To run WinPost

- Double-click the **WinPost 3.2** shortcut icon.



WinPost 3.2

The first time you run WinPost, a shareware registration notice is displayed informing you that you can evaluate WinPost for 21 days.

- Click **OK** to dismiss the notice.

The WinPost program is now running and its icon is displayed in the taskbar at the bottom of the Windows desktop:



To display the WinPost menu

- Point to the WinPost icon in the taskbar and press keypad = or \boxed{R} (or Enter on PowerBooks). This is equivalent to clicking the right PC mouse button.

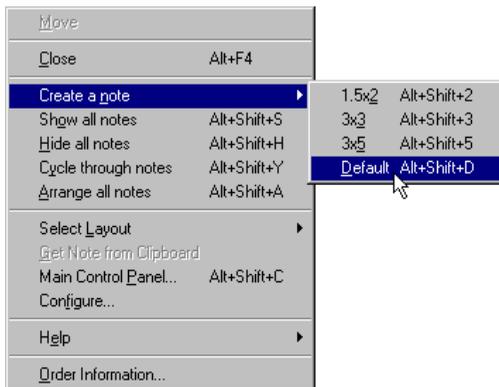
A pop-up menu appears above the taskbar.

Some of the commands on the WinPost menu are described opposite. For more information about all the commands refer to the **WinPost Manual** file.

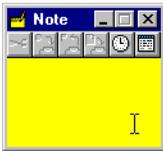
Tutorial (cont.)

To create a new note

- Display the WinPost menu, as described in the previous section.
- Choose **Default** from the **Create a note** submenu:



- An empty **Note** window appears.



- Type in the information you want to remember.



The buttons along the top of the note provide useful functions. For example, the first three are cut, copy, and paste just like the equivalent commands in Macintosh programs.

To print from a Windows application

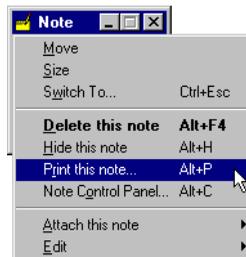
You can print from Windows applications to the printer available to your Macintosh, as set in your Macintosh Chooser.

To illustrate printing from Windows try printing the note you have created.

Before printing you need to ensure that SoftWindows 98 is set up for the Macintosh printer you want to use, as [described on page 48](#).

To print a note

- Click the control menu button, in the top left corner of the **Note** window, to display the control menu.
- Choose **Print this note...**



Alternatively, you can use the key shortcut **Alt+P**. Note that you should use the Macintosh option key as **Alt**.

- When the **Print** dialog box appears click **OK** to print the note.

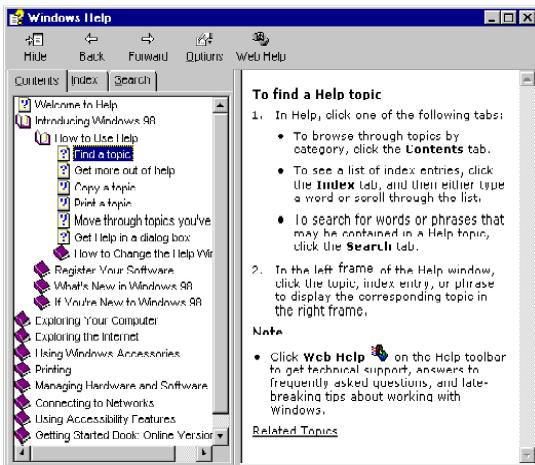
A few seconds after Windows has finished printing, the printouts will automatically be sent to your Macintosh printer.

Getting help on Windows

Windows includes a comprehensive help system, with answers to most problems you are likely to have.

To display Windows Help

- Click the **Start** button, then click Help.
- Help topics are displayed, grouped by subject. Click a book icon to display the contents of that book.



- Click a help topic icon. Help will then be displayed for that topic:

To find help from the index

- Click the **Index** tab to show an alphabetical list of topics.
- Click a help topic and then click **Display** to display help on that topic.

To find help topics containing a word or phrase

- Click the **Find** tab, and then type in the word or phrase you want to find.

A list of matching topics will be displayed.

- Click a help topic and then click **Display** to display help on that topic.

To get help on an item on the screen

- Point to the item and press the = key on the numeric keypad.

This is equivalent to clicking the right PC mouse button.

A **What's This?** box appears.

- Click **What's This?** to display an explanation of the item.

Copying, pasting and using drag-and-drop

SoftWindows 98 includes an Insignia utility called SmartCopy, which transfers text and graphics between the Macintosh and Windows clipboards, so that you can copy or cut and paste freely between Macintosh and Windows applications.

When SmartCopy is running, its icon appears at the right end of the taskbar:



This icon changes when you place an item in the Macintosh or Windows 98 clipboard (by cutting or copying the item) as follows:

When you click the mouse button with the pointer outside the SoftWindows 98 window the **SmartCopy** icon shows an arrow pointing out, to show that text or graphics is ready to paste into a Macintosh application:

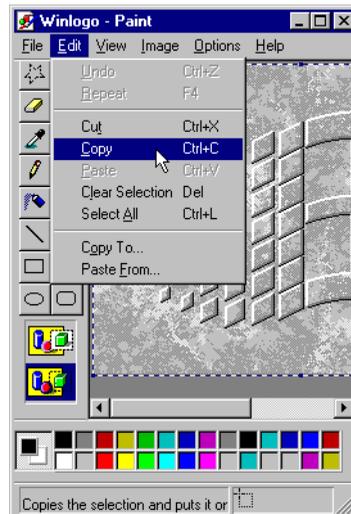


When you click the mouse button with the pointer inside the SoftWindows 98 window the **SmartCopy** icon shows an arrow pointing in, to show that text or graphics is ready to paste from a Macintosh application:



To copy text or graphics from Windows to the Macintosh

- ▶ Select the text or graphics you want to copy from the Windows application.
- ▶ Choose **Copy** from the Windows application's **Edit** menu:



The text or graphics is put onto the Windows clipboard.

- ▶ Switch to the Macintosh application you want to use.

SmartCopy translates the text or graphics to Macintosh format on the clipboard.

- ▶ Choose **Paste** from the Macintosh application's **Edit** menu to paste in the text or graphics that you copied.

Copying, pasting and using drag-and-drop (cont.)

To copy text or graphics from the Macintosh to Windows

- Select the text or graphics you want to copy.
- Choose **Copy** from the Macintosh application's **Edit** menu.
- Switch to SoftWindows 98.

SmartCopy translates the text or graphics to Windows format on the Windows clipboard, and you can use the **Clipboard Viewer** to view it.

- Choose **Paste** from the **Edit** menu of the Windows application you want to use, to paste in the text or graphics.

To drag text from the Macintosh to Windows

- Select the text you want to copy.
- Drag the text and drop it onto a Windows document in SoftWindows 98.

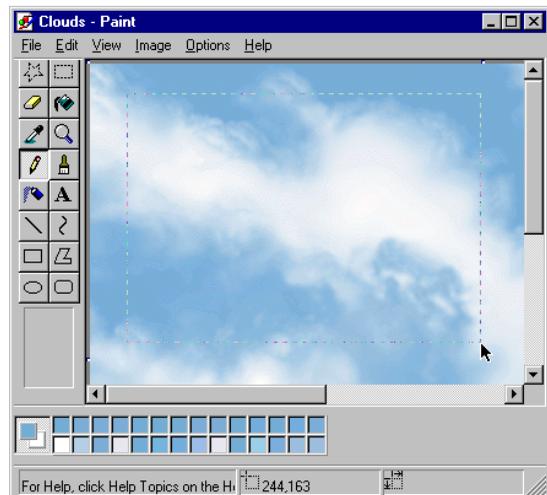
The text will be typed into the document at the current cursor position.

To copy graphics from the Windows desktop to the Macintosh

- Hold down the **⌘** key.

The Windows mouse pointer changes to the Macintosh mouse pointer.

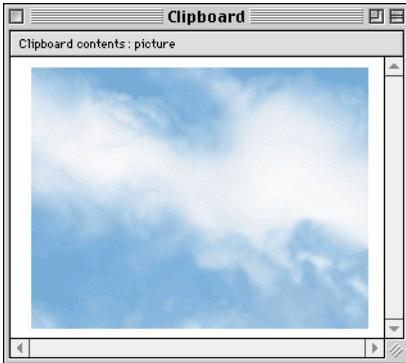
- Press the mouse button, and drag to draw a rectangle enclosing the section of the Windows desktop you want to copy:



- Choose **Copy** from the SoftWindows 98 **Edit** menu.

Copying, pasting and using drag-and-drop (cont.)

The graphics will be put on the Macintosh Clipboard and you can use **Show Clipboard** on the Macintosh **Edit** menu to display it:



To drag graphics from the Windows desktop to the Macintosh

► Hold down the  key.

The Windows mouse pointer changes to the Macintosh mouse pointer.

- Press the mouse button, and drag to draw a rectangle enclosing the section of the Windows desktop you want to copy.
- Drag the selected area into the open window of a Macintosh application that supports drag and drop.

If you drag into a Finder window the graphic will be saved as a Picture Clipping file:



Printing from Windows

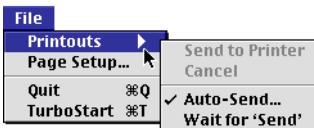
SoftWindows 98 allows you to print to any printer connected to your Macintosh, and take full advantage of all of its features, including color.

We recommend you use the supplied Insignia Printer Driver, which allows you to print from Windows applications to any Macintosh printer.

Alternatively, you can select an appropriate Windows printer driver for your printer, and then use one of the **Printer Port** options (from the **SoftWindows 98 Setup** dialog box) to emulate that type of printer. [See page 128](#) for details of how to set up printing in this way.

Auto-send or Wait

The options on the **Printouts** submenu on the SoftWindows 98 **File** menu allow you to specify when printing from your Windows program is sent to the printer.

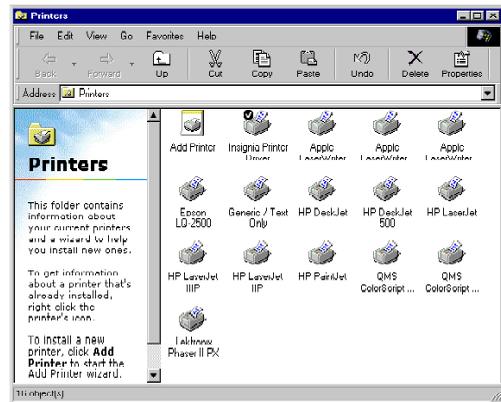


Auto-Send... specifies that printing is automatically sent to the Macintosh printer; this is the default setting.

Wait for 'Send' specifies that output should not be sent until you select **Send to Printer**.

To set up printing to any Macintosh printer

- ▶ Select the printer connected to your Macintosh or to your network in the Macintosh **Chooser**.
- ▶ In Windows click **Start**, then click **Settings** and **Printers**. The available printers are shown in the **Printers** folder:



- ▶ Select **Insignia Printer Driver** and choose **Set As Default** from the **File** menu.

The Insignia Printer Driver does not support Windows shared printers.

To print from Windows

- ▶ Print from the Windows application; typically by choosing **Print...** from the **File** menu.

The print information is first sent to the SoftWindows 98 printing buffer, then to the Macintosh printer. At this point the **Print** dialog box for the Macintosh printer is displayed.

- ▶ Click **Print** to send the print job to the printer.

Playing and recording sound in Windows

SoftWindows 98 emulates Sound Blaster Pro, Sound Blaster 16, and Windows sound, allowing you to play Windows waveform or MIDI files on your Macintosh. These are identified with .WAV and .MID extensions, respectively.

SoftWindows 98 also supports ADPCM decompression, to allow ADPCM sound files to be played in SoftWindows 98.

Please note that SoftWindows 98 does not support MDI or Sound Blaster input.

Using sound

You can choose an interesting sound for each of the events that can occur in Windows using the **Sound** control panel.

To use Windows sound you need to select **Windows Sound Driver** or **Sound Blaster** in the **Sound** panel of the **SoftWindows 98 Setup** dialog box; [see page 116](#) for details.

To adjust the volume and balance of SoftWindows 98 sound output you should use the controls in the Macintosh **Sound** control panel.

To set up Windows to play MIDI files

To play MIDI files using the Macintosh sound system you need to set the **Midi Output** pop-up menu to **QuickTime** in the **Sound** panel of the **SoftWindows 98 Setup** dialog box. You must also have the Macintosh **QuickTime** and **QuickTime Musical Instruments** extensions installed. For details of [QuickTime see page 20](#).

To play a sound or MIDI file from Windows

- ▶ Click the **Start** button then click **Programs**, **Accessories**, **Entertainment**, then **Media Player**.

The **Media Player** window is displayed.

- ▶ Choose **Open...** from the Media Player **File** menu, and select a waveform file, such as **Chord**, or a MIDI file, such as **Beethoven's Fur Elise**:



- ▶ Click **Open** to load the file,
- ▶ Click the Media Player **play** button to play the file:



- ▶ Choose **Exit** from the **File** menu to exit from Media Player.

Playing and recording sound in Windows (cont.)

To record sound in Windows

- ▶ Click the **Start** button, and click **Programs**, **Accessories**, **Multimedia**, and **Sound Recorder**.

The **Sound Recorder** window is displayed.

- ▶ Click the record button to record a sound.



The sound will be recorded from the device selected for sound input on the Macintosh.

- ▶ Click the stop button to stop recording.



- ▶ Choose **Save** from the Sound Recorder **File** menu to save the sound.

You can then play the sound back using Media Player.

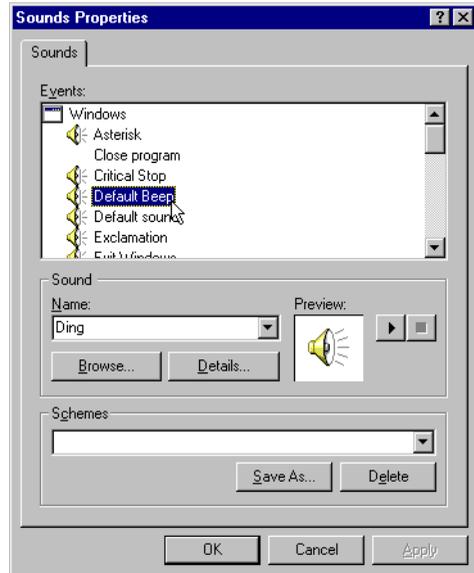
To set sounds for Windows events

- ▶ Open the **Control Panel** folder, by choosing **Control Panel** from the **Settings** submenu on the **Start** menu.

- ▶ Double-click the **Sounds** icon:



The **Sound Properties** dialog box is displayed.



The **Name** drop-down list box shows the current waveform file assigned to that event, or **(none)** if no sound is played.

- ▶ Select the Windows event you want to identify with a sound.
- ▶ Select the waveform file you want to use.
- ▶ Click **Preview** to play the sound.
- ▶ When you have set up the sound you want to play for each event, click **OK** to exit from the dialog box.

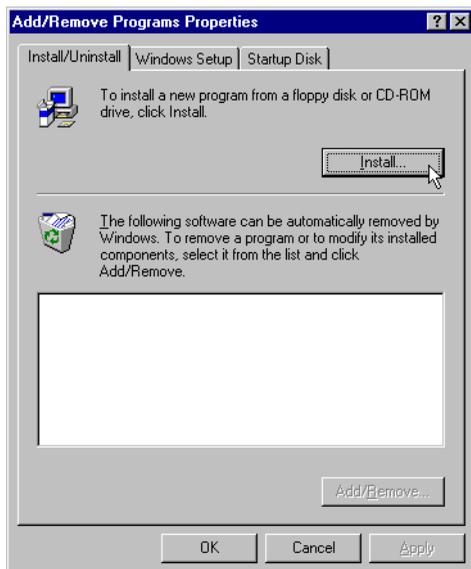
Installing, running, and removing Windows applications

Most Windows applications are installed using the standard Windows setup procedure. Provided you have a CD-ROM or 3.5-inch disks for your Windows application, the procedure is similar to installing software on your Macintosh.

To install a Windows application

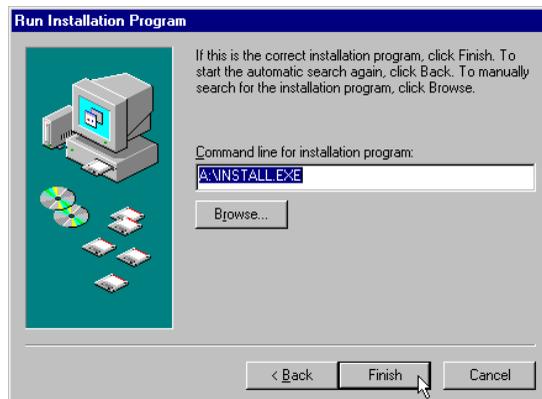
- ▶ Insert the application's installation CD-ROM or floppy disk into the Macintosh drive.
- ▶ Click **Start**, then click **Settings** and **Control Panel**.
- ▶ Double-click the **Add/Remove Programs** icon.

This dialog box appears:



- ▶ Click **Install...** to start the installation.

The installation program locates the installer on the disk you inserted:



- ▶ Click **Finish** to run the installer.

As the installation proceeds, dialog boxes will prompt you for any information needed for the installation.

To run a Windows application

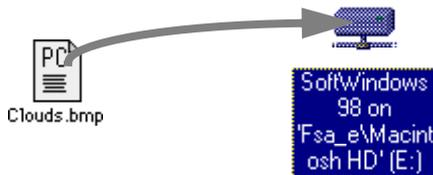
- ▶ Click **Start**, then click **Programs**.
- ▶ Point to the folder containing the program, and then click the program.

Installing, running and removing Windows applications (cont.)

To run a Windows application from the Macintosh

The SoftWindows 98 EasyLaunch feature lets you run a PC application simply by double-clicking an icon on your Macintosh, without first starting up SoftWindows 98.

- Set up the E : drive as a Macintosh shared folder (see page 106 for instructions).
- Double-click the **My Computer** icon on the Windows desktop.
- Drag the document or application file onto the E : drive icon to copy the file to the Macintosh shared folder.



- To auto-start SoftWindows 98 and Windows, and auto-run the Windows/DOS application, you can now double-click the relevant application or document icon from your Macintosh.

For example, if you double-click on the **clouds.bmp** icon above, you will run SoftWindows 98 and Windows 98, auto-start the built-in Paint program, then auto-load the “clouds.bmp” image for viewing and editing.

To remove a Windows application

- Click **Start**, then click **Settings** and **Control Panel**.
- Double-click the **Add/Remove Programs** icon.

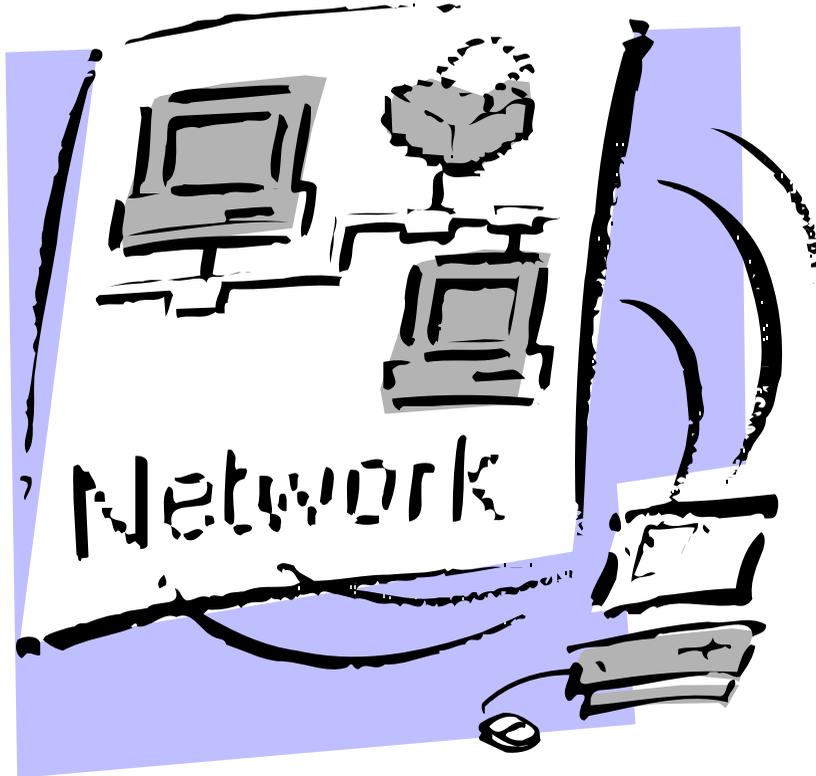
This dialog box appears:



- Select the program you want to remove and click **Add/Remove...**
- Click **Yes** to confirm program removal when prompted.

The program will then be removed from the hard disk file.

Chapter 4: Networking



SoftWindows 98 includes Insignia's network drivers, so you can share files between PCs, or run multi-user programs on a network.

SoftWindows 98 provides the same network functionality as a PC, enabling you to install a wide variety of PC networking packages, using Insignia's network drivers.

This chapter gives a brief description of network interfaces, then gives instructions for how to install PC networking packages.

Introduction

Network interfaces

In a PC networking environment, the operating system does not communicate directly with the network card itself, but through a software interface called a network driver. Modern network drivers and communication protocols are written to common interface standards, allowing multiple protocol stacks to be used with any network interface driver written to the same standard.

The most popular standards are currently the Network Driver Interface Specification (NDIS, developed by Microsoft and 3COM), and the Open DataLink Interface (ODI, developed by Novell and Apple).

Another driver standard is Winsock, which is one of the most popular PC network interfaces for TCP/IP applications.

SoftWindows 98 is supplied with the following drivers for both Ethernet and Token-Ring networks:

- NDIS, V3.1 miniport, 32-bit Windows only.
- ODI, 16-bit real mode.
- Winsock, V1.1, 16-bit and 32-bit.

All the SoftWindows 98 networking drivers are stored in the C:\INSIGNIA directory, and have the following filenames:

<i>Network driver</i>	<i>Filename</i>
Ethernet NDIS	ISETH.SYS
Token-Ring NDIS	ISTOK.SYS
Ethernet ODI	ETHERSPC.COM
Token-Ring ODI	TOKENSPC.COM
Winsock (16-bit)	WINSOCK.DLL
Winsock (32-bit)	WSOCK32.DLL

You cannot use the Insignia ODI and NDIS drivers simultaneously.

Requirements for network support

SoftWindows 98 network drivers (NDIS, ODI, Winsock) work with both of Apple's Classic and Open Transport network architectures. The preferred network architecture for SoftWindows 98 is Open Transport (v1.1.1 and above), the installer for which can be found on the SoftWindows 98 installation CD. Please consult the Open Transport readme file for system requirements.

If you are planning to use the DECnet protocol you will need to override your built-in Ethernet address. [Refer to page 71](#) for details.

SoftWindows 98 Winsock drivers

SoftWindows 98 is supplied with Winsock 1.1 compliant drivers. SoftWindows 98 will run Winsock-based applications without any modification. No configuration is required within the Windows environment. Unlike third-party Winsock drivers, which require a PC-based TCP/IP stack, the SoftWindows 98 Winsock drivers use the Macintosh's TCP/IP stack.

This removes the need for a third-party PC-based TCP/IP stack, and also reduces the overall amount of memory used within SoftWindows 98 to provide Winsock support.

The Insignia Winsock drivers are pre-installed, in the following Windows files:

```
c:\windows\winsock.dll  
c:\windows\system\winsock.dll  
c:\windows\system\winsock32.dll
```

Copies are also provided in the C:\INSIGNIA directory.

So you can use any Winsock-compliant application without re-configuring Windows. If you need to access local area network servers, Windows must be re-configured to access the host's network device, either via NDIS or ODI.

If you install third-party TCP/IP protocol stacks, this will replace the Insignia Winsock drivers and so will require full configuration (unique IP address and so on).

To restore the Insignia Winsock drivers

- ▶ Copy WINSOCK.DLL from the C:\INSIGNIA folder to the C:\WINDOWS folder, and also to the C:\WINDOWS\SYSTEM folder.
- ▶ Copy WSOCK32.DLL from the C:\INSIGNIA folder to the C:\WINDOWS\SYSTEM folder.

Networking with Windows

The following section describes the configuration of networking within Windows.

Windows can be configured to use either the SoftWindows 98 NDIS or ODI network drivers. It is recommended that the NDIS drivers are used where possible as they are Windows specific and offer the best performance. Note also that some third-party clients and protocol stacks must be installed via NDIS drivers. The configuration of the Insignia NDIS and ODI drivers are outlined in the following sections.

Using MacIPX

If you wish to use MacIPX and have NetWare connectivity within SoftWindows 98, Windows must be set up using the Insignia ODI drivers and Novell's NetWare 4 client. For details, see the on-line guide, **VLM Networking**, provided in the Documentation folder of your SoftWindows 98 installation CD.

To use Insignia NDIS drivers

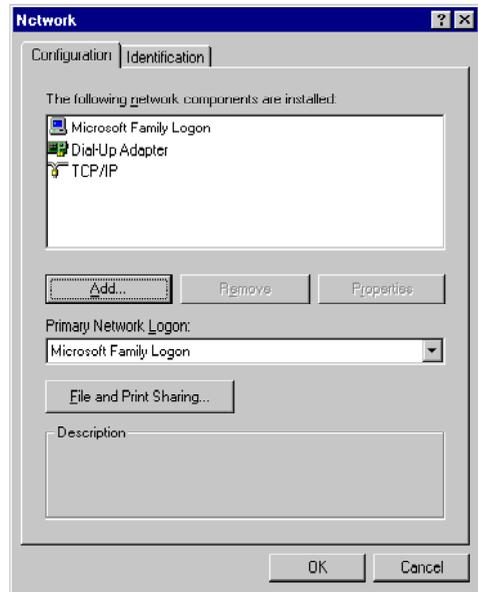
To use the Insignia 98 NDIS drivers with the standard Microsoft Windows clients, follow the instructions below. To use the NDIS driver with other Windows network clients, follow the application installation instructions, installing the Insignia NDIS driver as described below when required.

- Insert the WIN98DATA CD.
- Click the **Start** button, point to **Settings**, and then click **Control Panel**.
- Double-click the **Network** icon in the **Control Panel** folder.



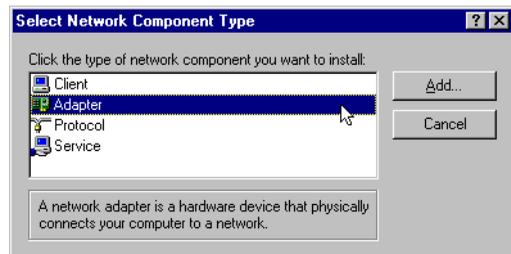
Network

The **Network** dialog box is displayed.



(if any existing drivers are displayed, select them and click **Remove**)

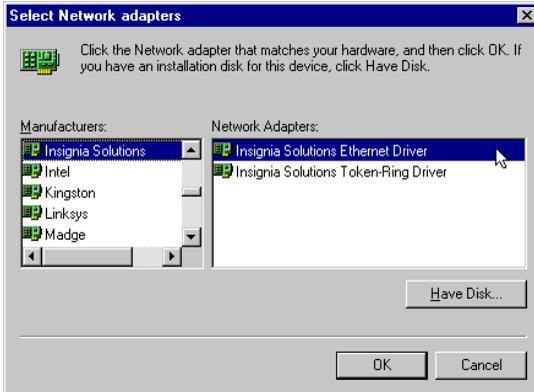
- Click **Add...** to display the **Component Type** dialog box:



- Select **Adapter**, then click **Add....**

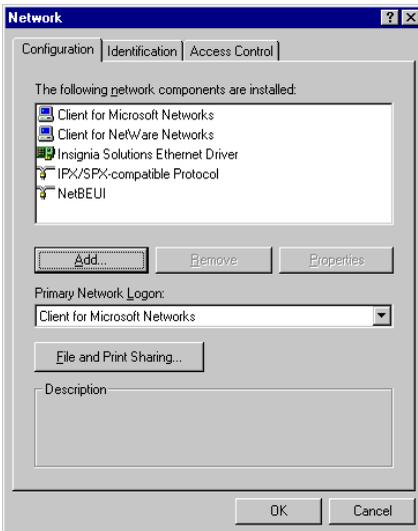
Networking with Windows (cont.)

A number of network adapter cards will be presented.



- Select **Insignia Solutions** from the **Manufacturers** list, as above.
- Select **Ethernet Driver** (the usual choice) or **Token-Ring Driver**, from the Network Adapter list, and click **OK**.

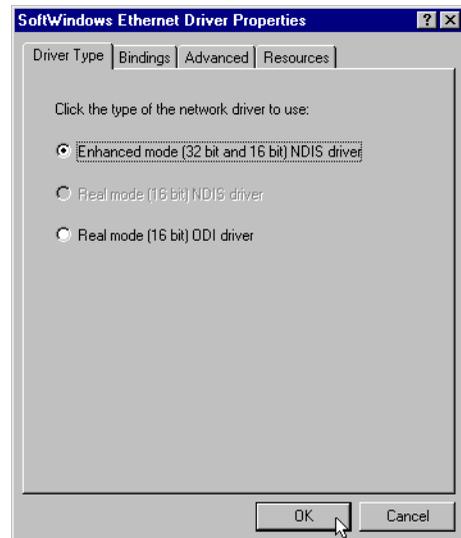
The **Network** dialog box should now show:



Windows adds the IPX/SPX and NetBEUI protocols and the Microsoft and NetWare clients by default.

The SoftWindows 98 network driver can be configured to be either NDIS (default) or ODI. To ensure that the NDIS driver has been chosen:

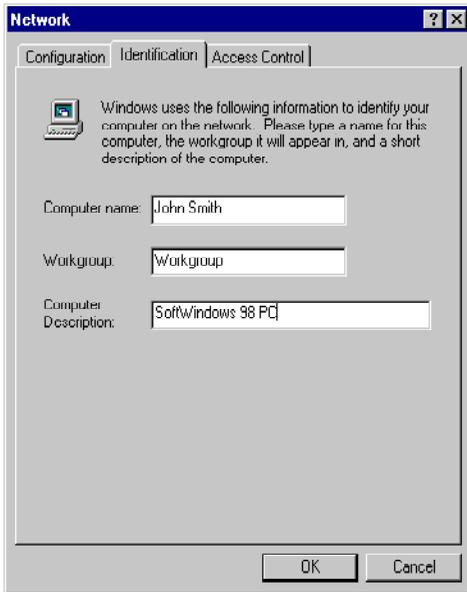
- Select the Insignia Network Driver and click **Properties**.
- Ensure that **Enhanced Mode (32 bit and 16 bit) NDIS driver** is selected.



- Click **OK** to return to the **Network** dialog box.
- If you require additional protocols and clients, add these in a similar way - selecting the relevant **manufacturer** and **Network adapter** as required.

Networking with Windows (cont.)

- Remove any protocols and clients you do not need, and click **OK**.
- Select the **Identification** tab.



- Select a unique **Computer name**, the **Workgroup** you wish to be a member of, and a **Computer Description** for SoftWindows 98. The Workgroup name should normally be set to Workgroup.

Other users identify your SoftWindows 98 installation from these settings. An informative **Computer name** and **Computer Description** can help when attempting to share network resources. Refer to your network administrator for more information.

- Once you are sure that the configuration is complete click **OK**.

- When a dialog box appears asking you to confirm the resource allocation for the driver, accept the default (IRQ 10), and click **OK**.

Windows will now copy the appropriate software and drivers.

- When prompted to supply the location of ISETH.SYS, specify C : \ I N S I G N I A .

The following dialog box will then appear:



- Click **Yes** to restart Windows.

After restarting Windows, double-click the **Network Neighborhood** icon on the Windows desktop to list the servers and machines that are visible to your computer.



To view all the network resources available to your machine, double-click the **Entire Network** icon.

Using TCP/IP

To add TCP/IP

To use the TCP/IP protocol with the NDIS drivers:

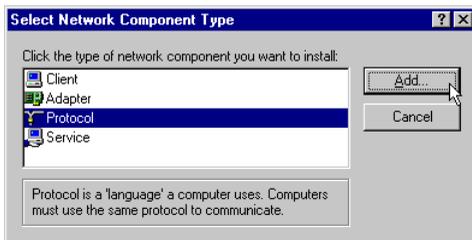
- Insert the WIN98DATA CD-ROM.
- Click the **Start** button, point to **Settings**, and then click **Control Panel**.
- Double-click the **Network** icon in the **Control Panel** folder:



Network

The **Network** dialog box is displayed.

- Click **Add...** to display this dialog box:



- Select **Protocol** and click **Add...**
- Select **Microsoft** in the **Manufacturers** list and **TCP/IP** in the **Network Protocols** list, then click **OK** to add it.

The **Network** dialog box should now include the **TCP/IP** protocol.

- Select **TCP/IP** and click **Properties**.

You will now need to enter the relevant TCP/IP settings - such as Host name, domain name, IP address and so on.

Please refer to your network administrator for details of these settings.

Note: If you are using TCP/IP or MacTCP, ensure that SoftWindows has a different IP address to your Macintosh.

- Select the **WINS Configuration** tab and ensure that **Disable WINS Resolution** is selected.
- Select the **Gateway** tab and add your gateway address.
- Click **OK** to confirm the changes.

Windows 98 now copies relevant software from your WIN98DATA CD. If Windows 98 cannot find a required file, ensure the path for this file is correct, by looking for the file on the CD.

- When asked whether you want to restart Windows 98 click **Yes**.

Windows 98 restarts, and is ready to use the TCP/IP protocol.

Using DHCP

Dynamic Host Configuration Protocol (DHCP) is an Internet standard for passing configuration information, including IP addresses, to hosts on a TCP/IP network.

You cannot use DHCP for both Windows 98 and Mac OS. To use DHCP, ensure that the IP address on one of these environments is static.

Configuring PPP connections

PPP connections with Microsoft Dial-Up Adapter

This section describes how to configure PPP with Windows (also known as Dial-up networking).

- Insert the WIN98DATA CD.

Setting up the appropriate drivers

- Click the **Start** button, point to **Settings**, and then click **Control Panel**.
- Double-click the **Network** icon in the **Control Panel** folder.
- When the **Network** dialog box appears, click **Add...**
- Select **Adapter** and click **Add...**
- Select **Microsoft** from the **Manufacturers** list, select **Dial-Up Adapter** from the **Network Adapter** list and click **OK** to add it.
- From the **Network** dialog box, click **Add...**
- Select **Protocol** and click **Add...**
- Select **Microsoft** from the **Manufacturers** list, select **TCP/IP** from the **Network Protocols** list and click **OK** to add it.
- Highlight **TCP/IP** and click **Properties**.

- If your Internet Service Provider (ISP) automatically assigns an IP address each time you dial in, leave the defaults. If your ISP requires that you specify your IP configuration, click **Specify an IP address** to complete the IP Address and Subnet Mask according to the ISP's configuration instructions.

Also complete the DNS Configuration Gateway and set the WINS Configuration to **Disable WINS Resolution** according to the ISP's configuration instructions.

If you are logging into a Microsoft network via modem:

- Verify the Identification items by clicking on the **Identification** tab and completing the Computer Name and Workgroup fields. Also, turn on File Sharing by clicking on **File** and **Print Sharing**.
- Highlight **Client for Microsoft Networks** and click on **Properties**.
- Check the box to **Log on to Windows NT domain** and enter your domain.

Auto detecting your modem

- From the **Control Panels**, select **Modems** and **Add..., Next>**, and let it Auto Detect your Modem. Click on **Dialing Properties** and complete the fields.

Configuring PPP connections (cont.)

- ▶ In **My Computer**, double-click on **Dial-Up Networking**. If the setup Wizard does not start automatically, double-click on **New Connection**.
- ▶ Click on **Next>**, name your connection and select your modem.
- ▶ Click on **Next>**. Enter your Area Code and Phone Number and click on **Next>**. Click on **Finish** to create your connection.
- ▶ In **My Computer**, select **Your Connection**. Enter your **User Name** and **Password**. Verify your phone number and click on **Connect**.

When the connection is made, SoftWindows 98 will be configured to work with your Internet applications.

Troubleshooting

If you cannot Connect or Ping, verify the IP addresses in your **Network** Control Panel.

Using ODI drivers

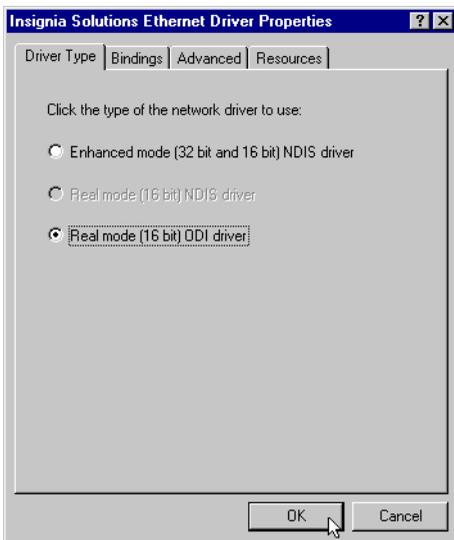
To use Insignia ODI drivers

This section describes how to configure Windows to use the Insignia ODI drivers. For Windows networking applications that require ODI, this is not the recommended solution.

If you are using MacIPX you should not use this option; refer to the on-line guide, **VLM Networking**, provided in the Documentation folder of your SoftWindows 98 installation CD, instead.

Also, TurboStart is not available if you are using ODI networking with Windows.

- ▶ Follow the steps described in [To use Insignia NDIS drivers, page 56](#), but select the **Real mode (16 bit) ODI driver** from the list of supported network drivers in the **SoftWindows 98 Network Driver Properties** dialog box.



- ▶ When asked whether you want to restart Windows click **No**.

Even though Windows has now been set up as required, the Insignia ODI driver needs to be configured to support the protocols and clients selected.

The Insignia ODI drivers are configured through the C : \WINDOWS\NET . CFG file. By default this is set to support both Ethernet and Token-Ring, with the frame types set to ETHERNET_802.2 and TOKEN-RING, respectively, for both Novell NetWare and Microsoft Networking; these are the same default protocols as those chosen by Windows during the network set-up.

If your network has different characteristics you will need to edit the NET . CFG file to select the appropriate options. To change the options, comment out the current setting by inserting a semicolon in front of the line and remove the semicolons from the lines you require. [See page 65](#) for more details of configuring ODI drivers.

Configuring NDIS drivers

The Windows registry holds configuration settings for the SoftWindows 98 NDIS drivers. Although you can alter these settings by editing the registry, we recommend you use the **Network** icon within the Windows **Control Panel**. To view network settings:

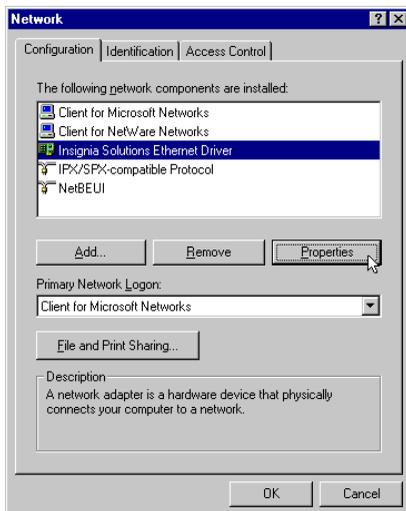
- ▶ Click the **Start** button, point to **Settings**, and then click **Control Panel**.
- ▶ Double-click the **Network** icon in the **Control Panel** folder.



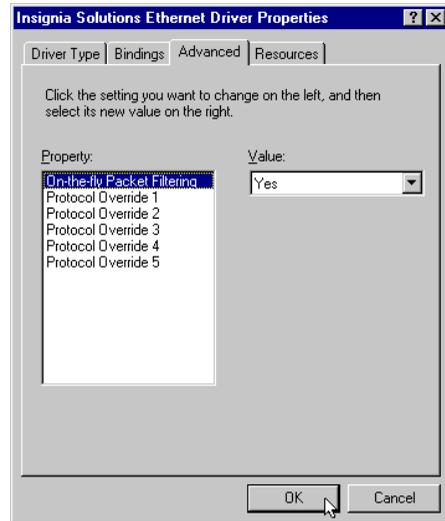
Network

To access the SoftWindows 98 NDIS driver's **Advanced** settings:

- ▶ Select the SoftWindows 98 NDIS driver and click on **Properties**.



- ▶ Select the **Advanced** tab to view the NDIS driver's settings:



The following **Advanced** settings are defined; note that some are Token-Ring specific.

Maximum Packet Size (Token-Ring only)

This option allows the SoftWindows 98 Token-Ring NDIS driver to be configured to support a smaller packet size defined by the host's network device. By default this is set to 4096 bytes. Note that a size greater than that supported by the host will be ignored.

Configuring NDIS drivers (cont.)

On-the-fly Packet Filtering

In normal operation the SoftWindows 98 NDIS drivers filter received packets on-the-fly. That is, they only receive packets of protocol types which they have previously transmitted. In some circumstances this could cause a slight degradation in performance, and the functionality of the NDIS drivers can be changed to disable this on-the-fly filtering technique. Disabling this functionality can stop network packets being received by Windows if care is not taken.

If **On-the-fly Packet Filtering** is disabled valid Protocol Overrides must be supplied.

Ring Speed (Token-Ring only)

The SoftWindows 98 Token-Ring NDIS driver uses whatever the host Token-Ring network card is configured to. This advance setting is provided for information only.

Protocol Override 1-5

Five Protocol Override settings are provided. These force the SoftWindows 98 NDIS drivers to enable the selected protocol types.

Enabling specific protocol types

The following table shows how to enable specific frame/protocol types:

<i>Frame Type</i>	<i>Value format</i>	<i>Example</i>
Ethernet_II	xxxx	0806
Ethernet_802.2	xx	F0
Ethernet_802.3	FF	FF
Ethernet_SNAP	AAxxxxxxx	AA008137
Token-Ring	xx	E0
Token-Ring_SNAP	AAxxxxxxx	AA000800

Where x represents a hex digit.

Note that ALL protocols must be added. For example, to enable TCP/IP you must enable both IP (0800) and ARP (0806). If **On-the-fly Packet Filtering** is enabled the protocol overrides are ignored.

Configuring ODI drivers

The ODI system is configured through a single file, NET . CFG.

The NET . CFG file is divided up into sections, each of which provides parameters to configure a different part of the ODI system. Each section of the file begins with a section heading at the start of the line, followed by a series of tab-indented configuration options under the section heading.

The following example shows a simple NET . CFG file:

```
LINK SUPPORT
    BUFFERS 8 1500
    MEMPOOL 8192
LINK DRIVER ETHERSPC
    FRAME ETHERNET_II
    PROTOCOL IPX 8137 ETHERNET_II
```

These sections are described in detail below.

LINK SUPPORT

The **LINK SUPPORT** section of the NET . CFG file is used to configure the Open Data-link Interface Link Support Layer (LSL . COM). This section is only needed when protocols require a non-default configuration.

LINK DRIVER

The **LINK DRIVER** section is the most important part of the NET . CFG file for configuring SoftWindows 98. The options set in this section govern the interface between the driver and the rest of the system, the protocols registered with the network interface, and the format of packets transmitted and received.

There are also numerous other configuration options associated with the network interface card, but most of these are not relevant to SoftWindows 98.

The following options are the most important for SoftWindows 98:

FRAME

Syntax: FRAME *frame-type*

This option enables a particular frame type.

PROTOCOL

Syntax: PROTOCOL *name protocolID frame-type*

This option enables a particular protocol to be used with a particular frame type. The SoftWindows 98 ODI driver will only receive network packets for those protocols enabled within the NET . CFG file.

MAX PACKET SIZE

Syntax: MAX PACKET SIZE *value*

Some platforms limit the size of packets which can be transmitted. This option is only offered to resolve any platform-specific limitations which may occur in the future.

The default sizes are as follows:

<i>Network</i>	<i>Default max packet size</i>
Ethernet	1514
Token-Ring	4210

Configuring ODI drivers (cont.)

Example

A sample LINK DRIVER section is as follows:

```
LINK DRIVER ETHERSPC
    FRAME ETHERNET_802.2
    FRAME ETHERNET_II
    FRAME ETHERNET_802.3
    FRAME ETHERNET_SNAP
    PROTOCOL IPX 8137 ETHERNET_II

LINK DRIVER TOKENSPC
    FRAME TOKEN RING
    FRAME TOKEN_RING_SNAP
    PROTOCOL IPX 8137 TOKEN-RING_SNAP
    MAX PACKET SIZE 4210
```

The FRAME lines in this LINK DRIVER section allow all four Ethernet and two Token-Ring frame types to be used with the driver. It is recommended that you always include all frame types in the LINK DRIVER section to allow the driver to transmit and receive frames in any of the common hardware packet formats. Note that the order of the lines is not significant. A configuration such as this prevents any FRAME and PROTOCOL mismatches occurring, and also makes configuring both ODI and NDIS (over ODI via the ODINSUP shim) identical.

The MAX PACKET SIZE option limits the size of any packets being transmitted and is only provided to solve platform-specific implementations in which the host is not able to transmit full size raw packets.

Since the SoftWindows 98 ODI drivers (ETHERSPC, TOKENSPC) and the other Novell ODI components all obtain their configuration data from the NET .CFG file, it is important that they all reference the same NET .CFG file. It is recommended that all the ODI components are loaded from the directory which contains the NET .CFG file, usually C:\NWCLIENT. For example:

```
CD \NWCLIENT
LSL
ETHERSPC
IPXODI
VLM
```

Configuring ODI drivers (cont.)

Configuration issues

IRQ level

Some network client software needs to know the interrupt number of the ODI driver during installation and configuration. SoftWindows 98 ODI and NDIS drivers use IRQ 10 (decimal).

ODI frame types

The following sections provide information on the FRAME types and PROTOCOL entries required in the NET .CFG file for common network clients and SoftWindows 98.

Windows/Microsoft LAN Manager/Windows for Workgroups

```
PROTOCOL SMB F0 ETHERNET_802.2
PROTOCOL SMB F0 TOKEN RING
```

Novell NetWare

```
PROTOCOL IPX E0 ETHERNET_802.2
PROTOCOL IPX 8137 ETHERNET_II
PROTOCOL IPX 8137 ETHERNET_SNAP
PROTOCOL IPX 0 ETHERNET_802.3
PROTOCOL IPX E0 TOKEN RING
PROTOCOL IPX 8137 TOKEN RING_SNAP
```

Novell's Protocol Burst support

Although by default this feature is disabled, it is possible to increase the performance of the NetWare 4 client within SoftWindows 98 by enabling Novell's Protocol Burst support for use with the SoftWindows 98 ODI driver. Only enable this when accessing NetWare 4 servers via the NetWare 4 client (this will have no benefit to performance in other circumstances).

To enable Protocol Burst support the SoftWindows 98 NET .CFG file must be edited. Remove the ; (semi-colon) at the beginning of the following line:

```
; MAX IPG = 1
```

Change the value of PB BUFFERS from 0 to 7.

Protocol Burst support will now be enabled whenever the NetWare 4 VLM client is loaded.

TCP/IP connectivity

```
PROTOCOL IP 800 ETHERNET_II
PROTOCOL ARP 806 ETHERNET_II
PROTOCOL IP 800 TOKEN RING_SNAP
PROTOCOL ARP 806 TOKEN RING_SNAP
```

Banyan VINES

```
PROTOCOL VINES BAD ETHERNET_II
PROTOCOL VINES BC TOKEN RING
```

Where two or more protocols of the same frame type are provided for the network client, all must be present in the NET .CFG file for the client to work correctly. For example, for the Microsoft network client to work over TCP/IP, and for access to NetWare servers to be enabled, the following must be defined in the Ethernet section of the NET .CFG file:

```
LINK DRIVER ETHERSPC
FRAME ETHERNET_II
PROTOCOL IP 800 ETHERNET_II
PROTOCOL ARP 806 ETHERNET_II
PROTOCOL IPX 8137 ETHERNET_II
```

Troubleshooting ODI

Link Support Layer

No problems should be encountered when loading the Link Support Layer. If an error does occur, the most likely cause is an incorrect entry in the LINK SUPPORT section of the NET.CFG file.

The ODI driver

Several problems could cause the Insignia ODI driver to report a failure at load time. The following are common faults and solutions:

ODI driver cannot find the host's adapter

The message shown below indicates that the Insignia ODI driver has failed to initialize or find the host's network device:

```
C:\NWCLIENT>etherspc
Insignia Ethernet MLID v2.00E (950908).
(C) Copyright 1991-1995 Insignia Solutions Inc.
All Rights Reserved.
IRQ 10, Node Address 800690895E2 L
Max Frame 1514 bytes, Line Speed 10 Mbps, Bus ID 0
Board 1, Frame ETHERNET_802.2, LSB Mode
Board 2, Frame ETHERNET_II, LSB Mode
Board 3, Frame ETHERNET_SNAP, LSB Mode
Board 4, Frame ETHERNET_802.3, LSB Mode
Could not find a host Ethernet card.
ETHERSPC-DOS-6: The adapter did not initialize.
ETHERSPC did not load.
```

Ensure that the specified topology (Ethernet/Token-Ring) is supported on your Macintosh.

ODI driver is loaded twice

The second attempt at loading the ODI driver will produce error output similar to the following:

```
C:\NWCLIENT>etherspc
Insignia Ethernet MLID v2.00E (950908).
(C) Copyright 1991-1995 Insignia Solutions Inc.
All Rights Reserved.
ETHERSPC-DOS-7: You need another ETHERSPC driver
section in the NET.CFG file in order to load the
LAN driver again.
```

The Insignia ODI drivers can only be loaded once. If you need to reload the ODI driver simply unload the previous instance first with the command:

```
ETHERSPC U 
```

Token-Ring line speed

The line speed for Token-Ring should be configured on your Macintosh since it cannot be configured from within the Insignia ODI drivers. The value displayed is the default and has no significance.

```
Insignia Token Ring MLID v2.00E (950908).
(C) Copyright 1991-1995 Insignia Solutions Inc.
All Rights Reserved.
IRQ 10
Max Frame 4210 bytes, Line Speed 4 Mbps, Bus ID 0
Board 1, Frame TOKEN RING, MSB Mode
Board 2, Frame TOKEN RING_SNAP, MSB Mode
```

Simultaneous protocol support

As the SoftWindows 98 networking functionality generally uses PC protocol stacks within SoftWindows 98, there can be conflicts between protocol resources (such as the port, socket, sequence numbers, and so on) when trying to use the same protocol stack from your Macintosh. SoftWindows 98, however, provides support for simultaneous protocol support for IPX and TCP/IP protocols.

Simultaneous IP connections

This section describes how to configure simultaneous TCP/IP network connections from Windows running in SoftWindows 98 and the Mac OS environment. Open Transport TCP/IP is not provided by Insignia Solutions Inc. but is included with Mac OS 7.5.x and later.

Apple Open Transport

Apple Open Transport TCP/IP 1.1.1 running on a Power Macintosh has a feature called Multisession IP that allows the MacOS to make IP connections while other applications, such as SoftWindows 98, make separate IP connections simultaneously. This setup requires a separate IP address for the MacOS and a separate one for the TCP/IP application running in SoftWindows 98. With this feature, the user may install TCP/IP packages such as Novell LAN WorkPlace for Windows in SoftWindows 98 without conflicting with the TCP/IP software in the MacOS.

The Open Transport TCP/IP can be configured to use the Ethernet, Token-ring or Apple IP configurations to get to the Internet. It can also use Open Transport's PPP 1.0 which configures a

modem for TCP/IP connections. The latest version of Open Transport PPP can be downloaded from Apple Computer's web site, <http://www.apple.com>. Regardless of the way TCP/IP is accessing the Internet or an intranet, the Insignia WinSock will still be able to provide a simultaneous IP connection through it.

The Insignia WinSock

Apple Open Transport TCP/IP 1.1.1 allows the user to run TCP/IP-compatible applications on your Power Macintosh. These applications will also allow the user to run WinSock 1.1-compatible applications in SoftWindows 98 simultaneously with MacOS TCP/IP applications. This feature is only available when the Insignia WINSOCK.DLL and WSOCK32.DLL files are installed properly.

The Insignia WSOCK32.DLL is a 32-bit WinSock that uses the IP stack provided by the Apple TCP/IP software. It will allow WinSock 1.1-compatible Windows applications, such as web browsers and FTP software, to connect to the Internet. The IP information configured in Open Transport TCP/IP is used by the Windows application.

Configuration

Refer to installation instructions from Apple Computer to install and configure Open Transport TCP/IP 1.1.1.

Simultaneous protocol support (cont.)

The Insignia WinSock was written specifically for the IP stack in the MacOS provided by Open Transport TCP/IP. When SoftWindows 98 is installed, the Insignia WSOCK32.DLL is in C:\WINDOWS\SYSTEM and the Insignia WINSOCK.DLL is in C:\WINDOWS.

If TCP/IP is configured for the Mac OS, no further Windows configuration is needed. If these files are not in these locations, copy them from the SoftWindows 98 Upgrade Disk.

- ▶ Choose **SoftWindows 98 Setup...** from the **Setup** menu, to see the **Hard Disks** panel.
- ▶ In the **D: Drive** section click the **Change...** button, and select the **SoftWindows 98 Upgrade Disk**.
- ▶ Click **Restart** to restart SoftWindows 98 with the new D: drive.

Use Windows Explorer to copy the both the WSOCK32.DLL and WINSOCK.DLL files from the D:\INSIGNIA directory to the correct directories on the C: drive:

```
C:\WINDOWS\WINSOCK.DLL
C:\WINDOWS\SYSTEM\WINSOCK.DLL
C:\WINDOWS\SYSTEM\WSOCK32.DLL
```

Restart Windows to reinitialize the Winsock:

- ▶ Click on the **Start** menu, select **Shutdown**.
- ▶ Select **Restart the computer?** and click **Yes**.

SoftWindows 98 should now be configured correctly for simultaneous IP connections.

DECnet Address Override

The DECnet protocol requires the Ethernet card you use in your Macintosh to have a particular address based on the area and node you have been assigned in your DECnet network by your system administrator.

To override the default address first install the DECnet Address Override utility as follows:

- ▶ Run the SoftWindows 98 installer, and select **DECnet Address Override Utility** in the **Custom Install** dialog box.

This installs the utility in the **Utilities** folder.

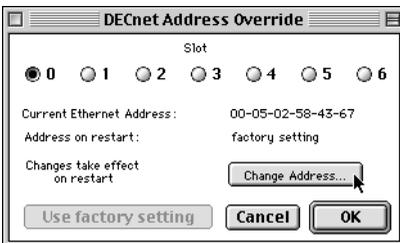
To run DECnet Address Override

- ▶ Double-click the **DECnet Address Override** icon:

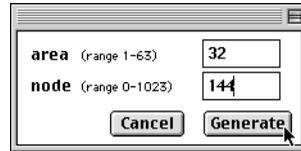


DECnet Address Override

- ▶ Click **Change Address...**



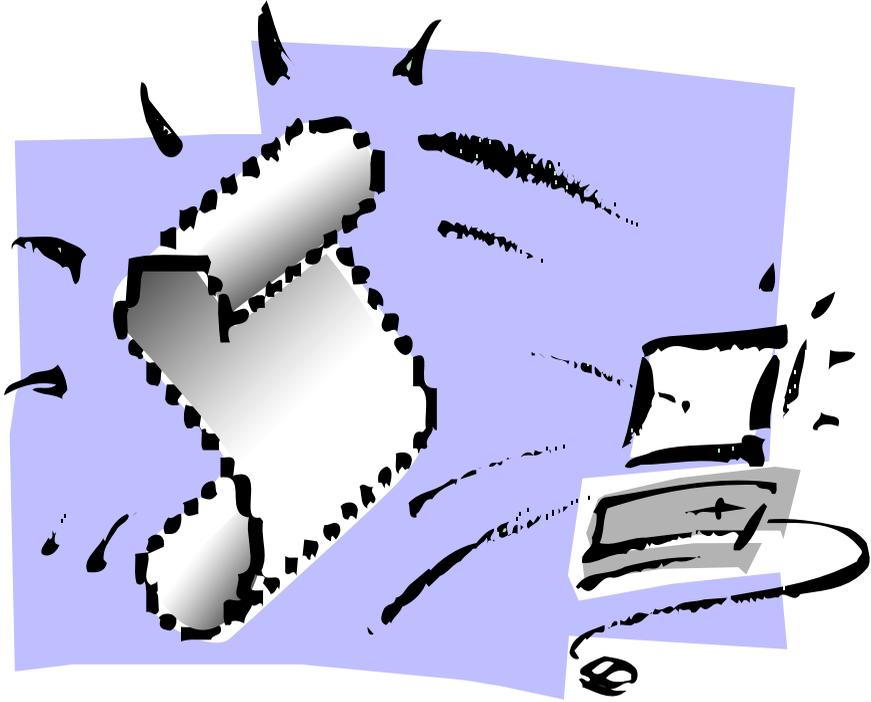
- ▶ Enter the area and node given to you by your system administrator, and click **Generate**.



- ▶ Click **OK** to save the new address.
- ▶ Restart your Macintosh to use the new address.



Chapter 5: Scripting



SoftWindows 98 supports AppleScript, to allow you to write scripts that run SoftWindows 98, execute commands, read information from the screen, or quit from SoftWindows 98.

To use AppleScript you need to install Apple's AppleScript software and the Script Editor.

This chapter provides several simple examples of using AppleScript with SoftWindows 98, and gives a full description of the AppleScript commands supported in SoftWindows 98.

For full information about using the AppleScript language and Script Editor refer to the documentation provided with AppleScript.

Scripting examples

This section illustrates how you can use scripting by giving some simple scripting examples.

Running SoftWindows 98

The following script runs SoftWindows 98:

```
tell application "SoftWindows 98"  
  run  
end tell
```

Reading information from the DOS window

The following example copies line 22 of the DOS window into the clipboard. It uses `activate` to bring the window to the front, and this should be used whenever copying or pasting text or graphics.

```
tell application "SoftWindows 98"  
  activate  
  set key "F8" to press  
  set key "6" to press  
  set key "Return" to press  
  write "DIR" & return  
  set bounds of selection to {0,22,44,23}  
  copy  
end tell
```

The numbers in the `selection` list specify an area of the SoftWindows 98 window in the format:

{left, top, right, bottom}

where *left, right* are the horizontal start / end in characters, and *top, bottom* are the vertical start / end in lines.

The following example gives the command `DIR` to SoftWindows 98. It then reads line 22 of the DOS window, to get the hard disk space available, and displays it in a dialog box:



Scripting examples (cont.)

Note that the `repeat` section of the script keeps checking the result until it has stopped changing, to ensure that the `DIR` command has completed. It does this using the two variables `TheResult` and `OldResult`.

```
tell application "SoftWindows 98"
activate
  set key "F8" to press
  set key "6" to press
  set key "Return" to press
  write "DIR" & return
  set bounds of selection to {0, 22, 44, 23}
  set OldResult to ""
  repeat
    set TheResult to contents of selection
    if character 1 of TheResult = space and
       TheResult = OldResult then exit repeat
    set OldResult to TheResult
  end repeat
  display dialog OldResult
end tell
```

Pasting into a Windows application window

The following script pastes the contents of the clipboard into the frontmost application in Windows:

```
tell application "SoftWindows 98"
  activate
  set key "Alt" to down
  set key "E" to down
  set key "Alt" to up
  set key "E" to up
  set key "P" to press
end tell
```

Running a Windows application

Scripting examples (cont.)

The following example illustrates how to run SoftWindows 98, and then start a Windows application such as Paintbrush.

The script runs the application using a DOS command at the command prompt:

```
tell application "SoftWindows 98"  
    run  
    activate  
    set key "F8" to press  
    set key "6" to press  
    set key "Return" to press  
    write "WIN PBRUSH" & return  
end tell
```

Here **F8** displays the Load menu, 5 chooses the command prompt option, and Return loads the command prompt. Note that this example assumes that you are not using TurboStart.

Quitting from SoftWindows 98

The following example quits from SoftWindows 98:

```
tell application "SoftWindows 98"  
    quit  
end tell
```

Scripting reference

The following sections give reference information about the SoftWindows 98 scripting commands.

Required suite

These must be supported by all applications which support high level events. They are:

quit	Quits SoftWindows 98. For example: <pre>tell application "SoftWindows 98" quit end tell</pre>
run	Runs SoftWindows 98. For example: <pre>tell application "SoftWindows 98" run end tell</pre>

Core suite

SoftWindows 98 does not support the entire AppleScript Core Suite because many of the events in the suite have no relevance to SoftWindows 98.

get	Gets the data for an object. This example returns the location of the top left corner of the SoftWindows 98 main window: <pre>get position of window 1</pre> <p>(the window number is only needed for consistency with other scriptable applications).</p>
set	Sets the data for an object.
data size	Returns the size of an object in bytes. For example: <pre>data size selection</pre>

Scripting Core Suite (cont.)

application | The SoftWindows 98 application itself.

The application has the following properties:

<i>Property</i>	<i>Description</i>
<code>clipboard</code>	The clipboard for the application. Returns a list containing the data in the clipboard. The clipboard can contain text or PICT data. To specify a particular type write: <code>get clipboard as text</code> or <code>get clipboard as picture</code>
<code>frontmost</code>	Returns <code>true</code> if SoftWindows 98 is in the foreground, or <code>false</code> otherwise.
<code>selection</code>	The selection visible to the user. For example: <code>tell application</code> <code>"SoftWindows 98</code> <code> get contents of selection"</code> <code>end tell</code>
<code>name</code>	Returns the name displayed in the DOS window title bar. For example, a demo version would return: <code>SoftWindows 98 - For</code> <code>Demonstration Purposes Only.</code>
<code>version</code>	Returns the SoftWindows 98 major version number.
window	The SoftWindows 98 main window. See next page for details

Scripting Core Suite (cont.)

The window can have the following properties:

<i>Property</i>	<i>Type</i>	<i>Description</i>
closeable	Boolean, read-only	Does the SoftWindows 98 window have a close box? Always false.
titled	Boolean, read-only	Does the SoftWindows 98 window have a title bar? Always true.
resizable	Boolean, read-only	Is the SoftWindows 98 window resizable? Always false.
position	QuickDraw Point, read/write	The location of the top left corner of the SoftWindows 98 window
contents	Text, read-only	The textual contents of the SoftWindows 98 window, with an extra  at the end of each line to maintain the formatting with the script editor results window.

selection | The SoftWindows 98 main window selection.

The selection can have the following properties:

<i>Property</i>	<i>Type</i>	<i>Description</i>
bounds	QuickDraw rectangle, read/write	Bounds of the current SoftWindows 98 selection rectangle.
contents	Text, read-only	The contents of the SoftWindows 98 selection rectangle.

Miscellaneous suite

Scripting Reference (cont.)

This suite consists of standard Apple Events which do not belong to any other suite.

copy

Copy the selection to the clipboard.

For example:

```
tell application "SoftWindows 98"  
    copy  
end tell
```

paste

Paste the selection from the clipboard.

For example:

```
tell application "SoftWindows 98"  
    paste  
end tell
```

Scripting Reference (cont.)

SoftWindows 98 suite

This suite consists of custom events specific to SoftWindows 98

key | SoftWindows 98 key.

This command has no properties. Its syntax is:

```
set key named-key-form to keystate
```

The valid *keystate* values are as follows:

<i>Keystate</i>	<i>Description</i>
press	Key behaves as if pressed once and released.
down	Key behaves as if held down. If key is repeatable it will start auto-repeating on the keyboard.
up	The key behaves as if released. If the key was auto-repeating because it was in the down state for the required time it should stop.

Note that there is no way to guarantee the number of times that a character is repeated while the key is in the down state because this depends on how long it is held down.

The possible values of *named-key-form* are listed below:

0 to 9	Alt Gr	End	Num /	Shift, right
A to Z	Arrow Down	Esc	Num 0 - 9	Space
'	Arrow Left	F1 to F9	Num Lock	Tab
`	Arrow Right	F10	Page Down	[
-	Arrow Up	F12	Page Up	\
.	Caps Lock	Home	Pause]
/	Ctrl	Insert	Print Scrn	`
;	Ctrl, right	Num *	Return	\$
=	Del	Num +	Scroll Lock	
Alt	Delete	Num -	Shift	

Scripting Softwindows 98 suite (cont.)

The following example types a :

```
tell application "SoftWindows 98"  
    set key "Return" to press  
end tell
```

Note that you can use the key command to perform actions in Windows.

LaunchWindowsApp

Runs a Windows application. Its syntax is:

```
LaunchWindowsApp command
```

where *command* is a string that could be entered in the Windows **Run...** dialog box. The command may need to include a full pathname if the application is not in the current directory.

This command is only valid in Windows 98 or Windows 95 - it is ignored in Windows 3.x.

reset

Reset SoftWindows 98.

TurboStart

Quits from SoftWindows 98 and activates TurboStart.

write

Insert a text string into the keyboard buffer as if it were typed in at the keyboard. Only normal ASCII characters can be entered in this way. The key event (described below) is provided to enter function keys, modifier keys and so on.

The following example gives a DIR command:

```
write "DIR\r"
```

Note that the `\r` produces a .

Appendix A: Troubleshooting



This chapter gives suggested solutions to problems that you may encounter when running SoftWindows 98. Please refer to this chapter before you contact Insignia for technical assistance.

Before you call technical support, please:

- ▶ Have your software serial number available when you call.
- ▶ Check that the program worked correctly prior to the current problem.
- ▶ If possible, be prepared to reproduce the sequence of steps or use the application that demonstrates the problem.
- ▶ Make a note of any error messages that appeared.

[See page 137](#) for details of contacting Insignia.

Common problems

The following sections give solutions to the most commonly-encountered problems when using SoftWindows 98.

Using the mouse

The mouse pointer has disappeared

While the mouse is selected for use by DOS applications it is not available to the Macintosh. To restore it type **⌘M**.

How do I get the right mouse button for PC applications?

Type keypad = or **⌘R** (or Enter on PowerBooks).

Using floppy disks

How do I eject a floppy disk?

Choose the appropriate drive from the **Eject** menu.

Alternatively, press **⌘Shift1**, **⌘Shift2**, or **⌘Shift0** to eject a disk from the internal, second internal, or external drive, respectively.

Using hard disks

How do I create a new hard disk?

Use the **Custom Install** option of the SoftWindows 98 installer. Alternatively, use the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box - [see page 100](#) for details.

How do I make a hard disk file larger?

[Use the Hard Disk Expander utility; see page 102](#) for details.

Using CD-ROM

How do I read a PC CD-ROM?

Insert the CD-ROM, and then access it as drive F :.

How do I eject a CD-ROM?

Choose the CD-ROM drive from the **Eject** menu.

Using memory

How do I set up memory for PC applications?

Use the **Memory** panel in the **SoftWindows 98 Setup** dialog box; [see page 111](#) for details.

Common problems (cont.)

Using keyboards

How do I get PC keys on the Macintosh keyboard?

[See page 29](#) for details of using the keyboard and mouse.

How do I set up a foreign keyboard?

[Refer to page 132](#) for details of international usage.

Using the screen

The SoftWindows 98 screen becomes corrupted by my Macintosh screen saver

Make sure you are running the SmartCopy utility.

Using printers

How do I set up the COM and LPT ports?

[Refer to page 120 \(serial ports\), or page 128 \(printing\).](#)

How can I print from a PC application?

[Refer to page 120 \(serial ports\), or page 128 \(printing\).](#)

Printing is not working properly

Check that the correct port is selected in the PC application:

LPT1 : for a printer selected in the Macintosh Chooser, or COM1 :

or COM2 : for a directly connected printer.

If you are using LPT1 : check that Windows or the PC application is set to the correct printer option.

Check that you are using the Insignia Printer Driver, or that the PC application is set up for the same type of printer as the setting in the **Printer Port** panel of the **SoftWindows 98 Setup** dialog box.

Check that the **Auto-Send...** command is specified to ensure that data is being sent to the printer, or choose **Send to Printer**; [refer to page 50](#) for details of printing from Windows.

Using serial devices

How do I use the Macintosh serial ports with PC applications?

[Refer to page 120](#) for details of setting up serial ports.

Configuring SoftWindows 98

Running PC applications

Common problems (cont.)

Where are the SoftWindows 98 preferences stored?

In the **SoftWindows 98 Prefs** file in the **Preferences** folder in your Macintosh System Folder.

How do I install PC software with SoftWindows 98?

[Refer to page 57.](#)

How do I run Windows?

[Refer to page 42.](#)

I get an error “application requires a VGA display”

If you try to run some Windows applications, such as Microsoft Dinosaurs, after a default installation you may get this message. To solve this problem use the **Windows Desktop...** command to change the desktop size to 640 x 480.

SoftWindows 98 shared folder errors

These errors appear in the SoftWindows 98 DOS window and relate to the use of shared folders.

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Illegal drive specification	The drive letter you are using for a shared folder is either missing or further along the alphabet than the limit set by LASTDRIVE.	Refer to page 106 for details of sharing PC files between SoftWindows 98 and the Macintosh.
SoftWindows 98 couldn't find that folder	This usually means that since the last time SoftWindows 98 ran the shared folder or disk was moved or renamed.	Use the Shared Folders panel in the SoftWindows 98 Setup dialog box to select a new folder.
SoftWindows 98 couldn't read that folder	The folder specified for a shared folder cannot be read.	Check your access privileges.
That name is not a folder	Only folders or disks, not documents, can be used as shared folders.	Use a folder or disk as a shared folder.

SoftWindows 98 errors

These errors are displayed in a Macintosh dialog box.

SoftWindows 98 licensing

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Sorry, this demonstration version of SoftWindows 98 has expired	Only relevant to demos.	Buy a full copy of SoftWindows 98.
Sorry - Incorrect Password	The password is incorrect.	Retype it.
Sorry - Incorrect type of Password	The password is incorrect.	You should retype the password.
Thank you for trying this demonstration version of SoftWindows 98	Only relevant to demos.	Buy a full copy of SoftWindows 98.
Both the 'Name' and 'Company Name' fields must be entered	You have omitted a field in the Personalization dialog box.	Enter the missing field.
Sorry - there are too many SoftWindows 98 users. SoftWindows 98 may quit in 2 minutes. Please save your work	Your concurrent use license allows a maximum number of simultaneous users of SoftWindows 98, and this number has been exceeded.	Save your files and try again later, or ask another user to quit.
Sorry - there are still too many SoftWindows 98 users. SoftWindows 98 has to quit now	The number of users has not decreased.	Buy another copy of SoftWindows 98.

SoftWindows 98 errors (cont.)

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
The number of SoftWindows 98 users is now below the limit. This copy will continue running	Another user has finished and you can now use SoftWindows 98.	Information message only.
Sorry - there are too many SoftWindows 98 users. Please try again later	The program already has the maximum number of users allowed by your particular license.	Save your documents and try again later, or ask another user to quit.
Please enter your SoftWindows 98 Password...	You must enter the password,	Enter the password.

Note

If these errors occur regularly you may need to upgrade your software license to allow a larger number of users. For more information on upgrading your software license, contact Insignia.

SoftWindows 98 errors (cont.)

Running SoftWindows 98

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
The SoftWindows 98 CPU has encountered an illegal instruction	The PC program you are running has an illegal instruction - SoftWindows 98 cannot process it.	Try again. If the error recurs reinstall the program. Try running the program in a slightly different way.
Internal error in SoftWindows 98 procedure	This is a rare, but fatal, error and there is no way to recover.	Restart SoftWindows 98 and retry operations that produced the error. If error recurs contact Insignia technical support.
SoftWindows 98 does not support a ROM BASIC	You have no bootable partition on your first hard disk drive.	Check the drive attached to C :.
SoftWindows 98 is in a continuous reset state	The CPU is being continuously reset. A PC would lock up in this state, but SoftWindows 98 will detect it. It has been caused by the application you are running.	If the problem persists, contact Insignia technical support.
Unknown type of video adapter currently in use	Obsolete video adapters are not supported in SoftWindows 98.	Only SVGA is available in SoftWindows 98.
SoftWindows 98 has been damaged. Please reload the application from your original disk	The SoftWindows 98 application must be reinstalled.	Refer to page 6 for details of installing SoftWindows 98.
Sorry - can't modify resources. Please make sure that your SoftWindows 98 application is writable	The SoftWindows 98 application is locked or on a read-only disk.	Unlock SoftWindows 98 and try again.

SoftWindows 98 errors (cont.)

SoftWindows 98 hard disk files

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Can't find ...	This message will have named a hard disk file which cannot be found.	It may have been moved or renamed.
Document is not a SoftWindows 98 hard disk file	The selected hard disk file is not a valid SoftWindows 98 hard disk file or SoftWindows 98 will not properly recognize a hard disk file.	Make sure you do not have QuickFolder or Shield INIT in your System Folder. Another application may have written into the document – only SoftWindows 98 should do this.
The hard disk document name must not be empty	The hard disk filename in your SoftWindows 98 settings file is blank.	Use the Hard Disks panel in the SoftWindows 98 Setup dialog box to assign a valid hard disk file.
Locked or already in use:...	The hard disk file specified is either locked, or in use by another user.	Unlock the hard disk file, or wait until the other user has finished.
SoftWindows 98 could not create the new hard disk document	You probably do not have the correct access privileges on a file server, are using an anti-virus extension, or the size of the hard disk was not large enough for the PC software to be loaded.	Either change the access privileges, disable the anti-hard virus extension, or specify a larger Macintosh hard disk.
There isn't enough space for the new Hard Disk file	There is insufficient space on the selected Macintosh drive.	Make more space available on your hard disk or create a smaller SoftWindows 98 hard disk file.

SoftWindows 98 errors (cont.)

Memory

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Out of memory	You are running close to the minimum amount of memory needed by SoftWindows 98.	Increase the application memory size; see page 111 for details.
SoftWindows 98 couldn't allocate the requested number of Memory pages	There is not enough memory available to provide the requested amount of memory.	Try allocating less memory - see page 111 for details.
SoftWindows 98 couldn't use that drive	SoftWindows 98 has a memory problem in setting up the shared drive.	See page 111 for details of setting up memory.

Floppy disk drives

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
The IBM hardware-compatible floppy disk drive is no longer attached to this machine	The floppy disk drive that was selected for drive A: has been removed since the last time SoftWindows 98 ran.	Uncheck Use Internal Floppy as A: in the Floppy Disks panel in the SoftWindows 98 Setup dialog box.

Shared folders

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Mac files must be accessed from a folder	A shared folder has been given a document name; only folders or disks are valid.	Use a valid name for the shared folder.

SoftWindows 98 errors (cont.)

Serial ports

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
Both serial port emulations cannot use the same serial port	You have assigned COM1 : and COM2 : to the same port.	Ensure that COM1 : and COM2 : are assigned to different ports.
One of the serial port emulations is configured to use your AppleTalk port	The port that you have requested for COM1 : or COM2 : on SoftWindows 98 is already in use by AppleTalk.	Either use the Macintosh Chooser to disable AppleTalk or use the Serial Ports panel in the SoftWindows 98 Setup dialog box to reassign COM1 : or COM2 :.
Unable to open the serial port output file	The file that you selected for use for the serial port output may be locked, or in use by another application or network user.	Choose a different file name, or wait until the other user has finished.

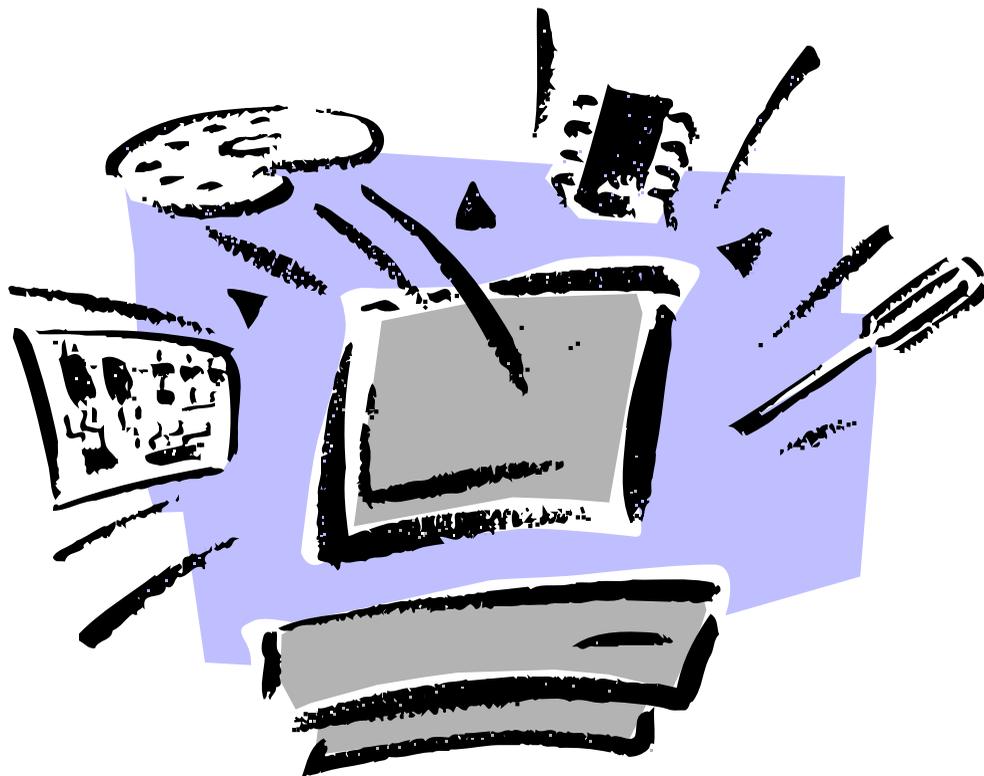
Networking errors

PC software error messages

These error messages may appear in the SoftWindows 98 DOS window.

<i>Error</i>	<i>Explanation</i>	<i>Suggestion</i>
A File Server cannot be found (vlm.com)	You have the wrong frame type set.	Correct your NET .CFG file. See page 65 for details .
FATAL Could not find a host Ethernet/Token Ring board (etherspc/tokenspc.com)	You are running etherspc.com/tokenspc.com when your Macintosh does not have an Ethernet/Token Ring board.	Check your Macintosh installation.
FATAL Board failed to initialize correctly (etherspc/tokenspc.com)	You are running etherspc/tokenspc.com when your Macintosh does not have an Ethernet/Token Ring board, or there is an error with the board.	Check your Macintosh installation.
Warning Protocol already in use. Protocol=IP, Frame=xx, PID=xx (etherspc.com/tokenspc.com)	Other software on your Macintosh is already using the TCP/IP protocol. Examples are Telnet,FTP,or Internet browsing software.	Quit from the Macintosh TCP/IP software. Alternatively, if the PC TCP/IP software is Winsock compliant, you can use the SoftWindows 98 Winsock driver concurrently with the Macintosh TCP/IP software.
Warning Protocol already in use. Protocol=IPX, Frame=xx, PID=xx (etherspc.com/tokenspc.com)	Other software on your Macintosh is already using the IPX protocol.	Select a different frame type in SoftWindows 98.

Appendix B: Changing SoftWindows 98 configuration



This chapter describes how to change configuration settings, using SoftWindows 98 to emulate the PC's disks, memory, display and other features.

Optimizing the performance of SoftWindows 98

This section explains how to set up SoftWindows 98 to obtain the best possible performance from your PC applications.

Application memory

The main factor affecting the performance of SoftWindows 98 is the amount of memory available to it. For information about changing this memory, [see page 111](#).

Increasing the application memory will allow you to increase the **PC Memory** setting within SoftWindows 98, which will improve the performance of PC applications.

For details of the latest information on recommended settings for different amounts of physical memory, see the SoftWindows 98 ReadMe file.

For optimum performance of SoftWindows 98 the **CPU Memory** indicator should be at **Best**; [see page 112](#) for details.

Memory-hungry PC applications such as Windows and Microsoft Excel may benefit from as much as 15 Mbytes or more of PC memory.

The Windows mouse pointer

For best performance, SoftWindows uses the Macintosh mouse pointer. If for some reason this is not selected, you can select it by holding down the  key and choosing **Mac Mouse** from the **Setup** menu.

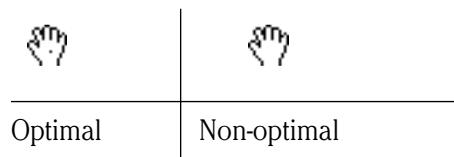
The Windows desktop

Display performance is best when the whole window is visible on the screen, not obscured by another window. Press B to place the window in the best position.

For best performance the Macintosh **Monitors** control panel and Windows desktop should be set to 256 colors.

When the Windows desktop is optimal, and you are using the Windows mouse pointer, a  is displayed in the title bar.

Alternatively, if the title bar is not visible press  and option to change the mouse pointer to a hand. The hand pointer includes a dot to indicate whether the Windows desktop is optimal:



The performance of SoftWindows 98 will decrease slightly as the size of the Windows desktop is increased.

Optimizing performance (cont.)

Other factors

The following other factors also have a significant effect on the performance of SoftWindows 98.

Macintosh performance

The performance of your Macintosh will directly determine the performance of SoftWindows 98.

Level 2 Cache

If your Power Macintosh does not already include Level 2 Cache you can achieve an increase in performance of up to 30% by having it installed.

Other Macintosh applications

Other applications running on your Macintosh, particularly those that check the network regularly, can slow down SoftWindows 98.

Macintosh extensions

You may find a performance improvement if you turn off any unnecessary extensions using **Extensions Manager**, as these can use system memory. Try restarting your Macintosh with the **Shift** key held down, to turn all extensions off, and see if there is a significant improvement in performance.

Macintosh hard disk

Defragmenting the Macintosh hard disk, using an appropriate Macintosh disk utility, may also improve performance.

Using the SoftWindows 98 Setup dialog box

Using the **SoftWindows 98 Setup** dialog box you can change the configuration of several features of SoftWindows 98 simultaneously, and then click the **OK** button to make the changes you have specified.

To display the **SoftWindows 98 Setup** dialog box choose **SoftWindows 98 Setup...** from the **Setup** menu:



Click a button on the left (or use the arrow keys) to show the current configuration of that feature of SoftWindows 98, or to change it:

<i>Click this</i>	<i>To change this</i>
Hard Disks	The emulated PC hard disk drives.
Memory	The amount of PC memory available.
Display	The display memory, Windows desktop size, and number of colors.

<i>Click this</i>	<i>To change this</i>
Sound	The Sound Blaster and MIDI emulation.
Shared Folders	The Macintosh folders set up as PC drives.
Serial Ports	PC serial ports settings.
Printer Port	Printing options.
Floppy Disks	The emulated PC floppy disk drive.
Other Devices	Support for other devices, including joysticks and 3Dfx cards.
CPU	The MMX, FPU, and CPU emulation settings.

These options are described in greater detail in the following pages.

Restarting SoftWindows 98

After changing hard disks or PC memory, which would correspond to a hardware change on a hardware PC, SoftWindows 98 has to be restarted, and the **OK** button in the **SoftWindows 98 Setup** dialog box changes to **Restart** to warn you.

- Click **Restart** to restart with the new configuration you have specified.

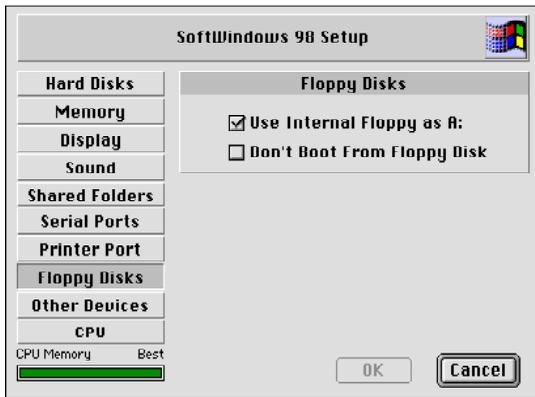
Setting up the floppy disk drive

PCs identify the different types of disk drive using the drive letters A: to Z:.

By default, PC drive A: is set up as the Macintosh internal SuperDrive, if present.

To set up the PC floppy disk drive

- ▶ Display the **Floppy Disks** panel in the **SoftWindows 98 Setup** dialog box.



- ▶ Check the **Use Internal Floppy as A:** box to use the Macintosh internal SuperDrive as drive A:.
- ▶ Check the **Don't Boot From Floppy Disk** box to prevent SoftWindows 98 from attempting to boot from a floppy disk if you restart with a disk in the drive.

Which disks to use

The recommended floppy disks to use are 3.5", 1,44Mbytes high-density disks. You cannot use Macintosh format floppy disks for the PC floppy disk drive.

On a PC, a double density (720 Kbyte) 3.5-inch disk can be formatted as 1.44 Mbytes, but it will not be recognized as a valid PC disk by your Macintosh. Likewise, a high density 3.5-inch disk will only be accepted if it is the correct 1.44 Mbyte format.

To use PC 1.6 Mbyte DMF-format floppy disks you need Mac OS System 7.6 or later, or version 2.0.7 or later of the **PC Exchange** control panel.

Setting up hard disk drives

SoftWindows 98 emulates each PC hard disk using a single file on the Macintosh.

 PC
SoftWindows 98 Hard Disk File C

SoftWindows 98 hard disk files can be attached to and detached from either of the PC drives C: and D: without affecting the information stored within the hard disk file.

SoftWindows 98 will attempt to boot from a floppy disk in drive A: when restarted, unless **Don't Boot from Floppy Disk** is selected in the **Floppy Disks** panel of the **SoftWindows 98 Setup** dialog box.

Using the Hard Disk Mounter to list files in a hard disk

You can list and access individual files within a SoftWindows 98 hard disk file from the Macintosh using the Hard Disk Mounter utility. This avoids the need to start up SoftWindows 98 to find or use a particular file.

To show these files, simply drag the hard disk onto your **HD Mounter** icon (in your SoftWindows 98 folder). The hard disk is then mounted on your desktop, and you can see the contents of that hard disk. You can then access each file on that hard disk from your Macintosh.

We recommend that you exercise caution if you replace, remove or modify any files, especially files in the **Windows** directory, as you may adversely affect SoftWindows 98 operations.

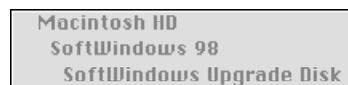
To see which hard disk files are set up as drives C: and D:

- ▶ Display the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box.



This shows the name of the hard disk file selected as the C: and D: drives, or **None Selected** if there is no D: drive.

- ▶ Click the  button to the left of the filename to display the full path of the hard disk file:



Setting up hard disk drives (cont.)

To choose the hard disk file for C: or D:

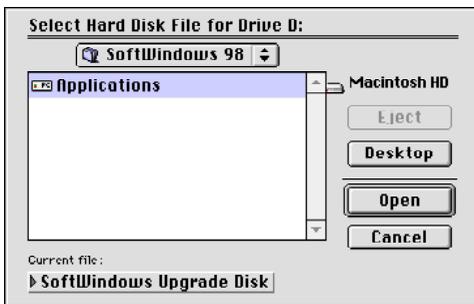
- ▶ Display the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Click the **Change...** button in the **C: Drive** or **D: Drive** section, as appropriate.



To detach the hard disk file from D:

- ▶ Display the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Click the **Use None** button in the **D: Drive** section.
- ▶ Click **Restart** to restart SoftWindows 98 with no D: drive.

The following dialog box lets you select the hard disk file to use:



- ▶ Select the hard disk file you want to use and click **Open**.
- ▶ Click **Restart** to restart SoftWindows 98 with the new drive you have specified.

Changing the size of hard disk files

The **HD Expander** utility, installed in the **SoftWindows 98** folder, allows you to:

- Increase the size of a hard disk file up to 505 Mbytes.
- Decrease its size to remove unused space.
- Defragment it without changing its size to improve its performance.

To change the size of a hard disk file

- Quit from SoftWindows 98 if the hard disk file you want to expand is set up as the C: or D: drive.

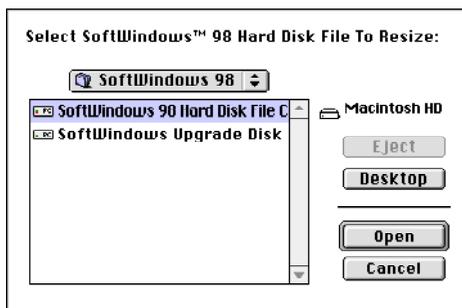
If the hard disk file contains valuable data make a backup before proceeding.

You may need free disk space equivalent to the size of the hard disk file, even if you are reducing its size.

- Double-click the HD Expander icon:



This dialog box appears:

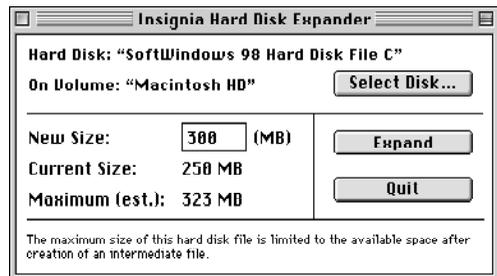


- Select the hard disk file you want to expand, and click **Open**.

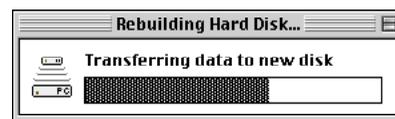
Alternatively, you can drag the hard disk file icon and drop it onto the **HD Expander** icon.

The **Hard Disk Expander** window shows the current size of your hard disk file.

- To increase its size enter a larger size and click **Expand**.
- To decrease its size enter a smaller size and click **Shrink**.
- To defragment the hard disk file enter the same size and click **Compact**.



HD Expander changes the size of your hard disk file, defragmenting it first if necessary:



- When the hard disk file has been resized click **Select Disk...** to select another hard disk file to expand, or **Quit** to quit from the HD Expander.

Creating new hard disk files

When you first install SoftWindows 98 two hard disk files are created to act as the C: and D: drives for SoftWindows 98.

The C: drive, called **SoftWindows 98 Hard Disk File C**, contains the start-up files and Windows 98.

The D: drive, called **SoftWindows 98 Upgrade Disk**, contains additional utilities to upgrade hard disk files and install the Insignia drivers.

You can change the size of a hard disk file using the HD Expander utility; as [described on page 102](#).

You can use the **Custom Install** option in the SoftWindows 98 installer to create additional copies of these hard disk files at any time.

Alternatively you can create C: or D: drives from within SoftWindows 98, using the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box. This command allows you to create either bootable disks, for use as a C: drive, or non-bootable empty hard disk files, for use as a D: drive. In each case you can specify the size of the file you want to create, as [described on page 104](#).

To create a new C: hard disk file using the installer

- ▶ Insert the first installation CD and double-click the **Installer** icon.
- ▶ When the Welcome screen appears click **Continue...** to display the **Easy Install** dialog box.
- ▶ Choose **Custom Install** from the pop-up menu to display the **Custom Install** dialog box:



- ▶ Select the **Windows 98 Hard Disk** option to create a bootable C: drive hard disk file containing Windows 98.
- ▶ Click **Install** to install the hard disk you have selected.

Creating new hard disk files (cont.)

This dialog box appears:



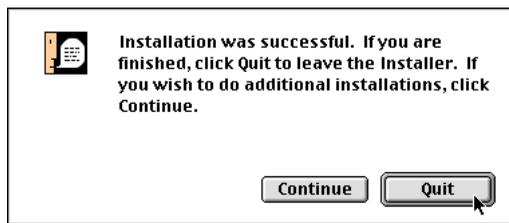
- Enter a name for the new hard disk file.
- Select the size for the hard disk file from the **Size** pop-up menu, or type the size into the box.
- Click **Create** to create the hard disk file.

The installer then copies files to the new hard disk file.

You will be asked to insert the second installation CD.

- Insert the specified CD.

Finally this dialog box informs you when the hard disk file has been copied successfully:



- Click **Quit** to quit from the installer.

The first time you use a new C: drive an update utility will run automatically to prepare it for use with SoftWindows 98.

To create a new hard disk file from SoftWindows 98

You can create a new hard disk file from within SoftWindows 98 using the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box.

- Display the **Hard Disks** panel in the SoftWindows 98 Setup dialog box.
- Click the **Create...** button in the **C: Drive** or **D: Drive** section, as appropriate.

This dialog box appears:



If necessary this dialog box lets you locate the **WIN98.DAT** file:



Creating new hard disk files (cont.)

- Locate the **WIN98.DAT** file and click **Select**.
- Enter a name for the new hard disk file.
- Select the size from the pop-up menu. The options available will depend on the amount of free space on your Macintosh hard disk.
- Click **Create** to create the hard disk file you have specified.

SoftWindows 98 will then need to be restarted to use the new drive you have created.



- Click **Restart** to restart SoftWindows 98 with the new drive you have created.

The first time you use a new C: drive an update utility will run automatically to prepare it for use with SoftWindows 98.

You can leave the **HDDData** file on the CD-ROM, and access it from there if you need to.

Sharing PC files between SoftWindows 98 and the Macintosh

SoftWindows 98 lets you designate one or more Macintosh folders to be used as PC drives.

You can then work with files in these shared folders using either Macintosh or DOS and Windows applications.

Windows filenames

Windows 98 supports long filenames, which can contain up to 250 characters. The maximum length of Macintosh filenames is 31 characters, and you will not be allowed to save a Windows file to a shared folder if its name contains more than 31 characters.

Some Windows applications automatically add a four-character extension to the filename you specify, in which case the maximum length is 27 characters.

Some Windows applications cannot be installed in a shared folder because they include files whose names contain more than 31 characters. If necessary, install onto a SoftWindows 98 hard disk file instead.

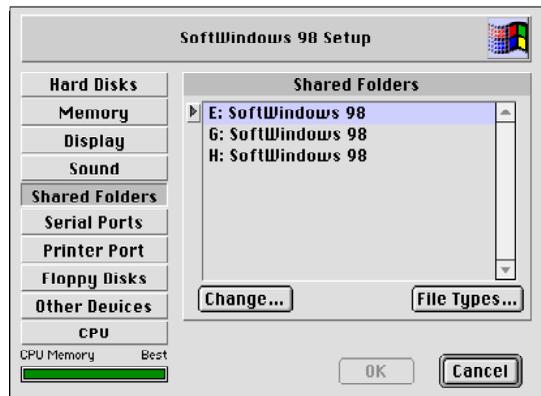
To see which Macintosh folders are set up as PC drives

- ▶ Choose **SoftWindows 98 Setup...** from the **Setup** menu.

The SoftWindows 98 Setup dialog box is displayed.

- ▶ Click the **Shared Folders** button.

The **Shared Folders** panel shows the PC drives currently set up as Macintosh folders:



Initially drives E:, G:, and H: are set up as the **SoftWindows 98** folder.

- ▶ Click on the  button to the left of the drive letter to display the full path of the folder:



Sharing PC files (cont.)

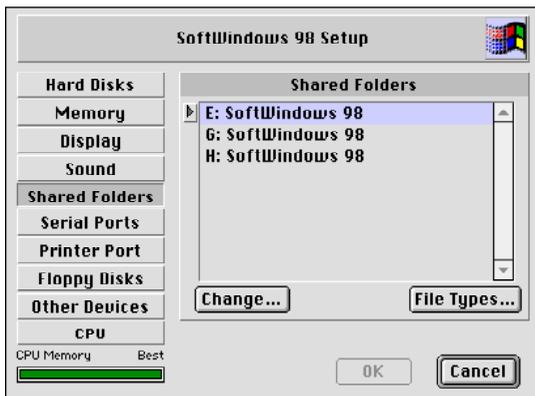
To set up a Macintosh folder as drive E:

- Drag the folder and drop it onto the SoftWindows 98 window.

Drag-and-drop will not set up E: if you have removable SCSI devices attached to your Macintosh, as these devices always use E: drive.

To set up a Macintosh folder as a particular PC drive

- Click the **Shared Folders** button in the **SoftWindows 98 Setup** dialog box to display the Shared Folders panel.
- Select the PC drive you want to set up and click **Change...** (or double-click the PC drive):



This dialog box lets you select the folder you want to use and the PC drive to assign it to.



- Select the Macintosh folder you want to use, so that its name appears in the **Use** button below the list of files.
- Click the button to use the folder you have selected.

You can make more drive letters available for Mac/PC shared folders if necessary - [for more information, see page 108](#).

Sharing PC files (cont.)

To create additional shared folders in Windows

By default only drives E:, G:, and H: are provided in Windows. To set up additional drives:

- Open the **Windows Explorer**.
- Choose **Map Network Drive** from the **Tools** menu.
- Enter the name of the Macintosh folder you want to map, in the format:

`\\FSA_X\disk\folder`

where *X* is the drive letter you want to map, *disk* is the name of the Macintosh hard disk, and *folder* is the name of the Macintosh folder.

To copy a PC file to the Macintosh

- In SoftWindows 98, copy the file to a drive which has been set up as a shared folder.

For example, if the **SoftWindows 98** folder is set up as drive E:, copy the file to the E: drive.

To run a PC file from the Macintosh

The SoftWindows 98 EasyLaunch feature lets you run a PC application simply by double-clicking an icon on your Macintosh.

- Set up the E: drive as a shared folder.
- From Windows 98, copy the application file to the E: drive.

You can now automatically run SoftWindows and Windows, and then run the Windows application, by double-clicking the icon.

To copy a Macintosh file to SoftWindows 98

- Put the file in a folder you have set up as a shared folder.

For example, if the **SoftWindows 98** folder is set up as drive E:, you can make a file available on the PC drive E: by putting it in the **SoftWindows 98** folder.

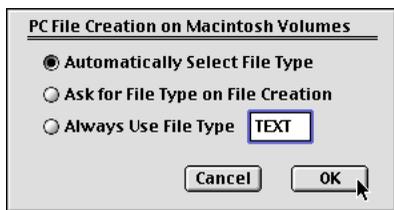
Sharing PC files (cont.)

To specify the type of files created in shared folders

You can choose what types of Macintosh documents are created when SoftWindows 98 creates DOS files in Macintosh shared folders.

- ▶ Click the **Shared Folders** button in the **SoftWindows 98 Setup** dialog box to display the **Shared Folders** panel.
- ▶ Click **File Types**.

This dialog box allows you to specify how files are created:

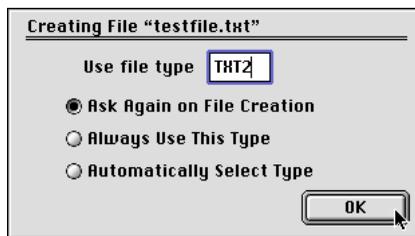


- ▶ Choose **Automatically Select File Type** to assign standard SoftWindows 98 file icons to the files you create, based on their extension:

<i>Document icon</i>	<i>Used to identify</i>	<i>Assigned to these extensions</i>
 PCFA	DOS programs	.COM or .EXE
 PCFL	PC binary files	.BIN, .DVR, .OBJ, .OVL, .OVR, or .SYS
 TEXT	DOS data files	All other extensions

DOS data files can be recognized by most Macintosh applications, including SimpleText, MacWrite Pro, Microsoft Word, Claris Works, Excel, and WordPerfect.

- ▶ Choose **Ask for File Type on File Creation** if you want to be prompted to enter the four-character type to be used each time a file is written to a shared drive from SoftWindows 98. This dialog box appears:



Enter the file type for the file you are creating. Alternatively, choose one of the options **Automatically Select Type** or **Always Use This Type** to specify the file type automatically and change the preferences for all subsequent files created by SoftWindows 98.

- ▶ Choose **Always Use This Type** if you want to use a specified file type for every file regardless of its extension. The default type is TEXT, but you can specify any other four-character type.

Setting up CD-ROM drives and SCSI devices

You can use SoftWindows 98 to read CD-ROMs which are compatible with the Microsoft CD-ROM Extensions (MSCDEX) as PC drives, just like the files on any other drive.

By default PC drive F: is set up as the Macintosh CD-ROM drive.

To access dual-format CD-ROMs on an Apple Macintosh from SoftWindows 98, you need version 5.1.7 or later of the Apple CD-ROM driver. This version is supplied with SoftWindows 98 on the installation CD, in the **Extras** folder.

If you have other PC-compatible SCSI devices attached to your Macintosh, these will be recognized when SoftWindows 98 starts up, using the ASPI drivers. These devices can then be used by running the appropriate PC software. For example, a SCSI disk drive will be assigned a drive icon in the Windows **My Computer** folder:



Removable
Disk (E:)

Setting up CD-ROM drives

Windows uses a 32-bit CD-ROM driver ISLCDROM.PDR, which is loaded automatically on start-up.

Setting up SCSI devices

By default Windows is set up with this ISLCDROM.PDR CD-ROM driver, which gives optimum performance when reading CDs.

To also access SCSI devices from Windows you need to replace this driver as follows:

- Rename the file ISLCDROM.PDR, in the C:\Windows\system\IOsubsys folder, to ISLCDROM.BAK.
- Click the **Start** button, point to **Settings**, and then click **Control Panel**.
- Double-click the **Add New Hardware** icon.
- When the **Add New Hardware** dialog box appears click **Next>**.
- When asked if you want Windows to look for the new hardware select **No** and click **Next>**.
- From the list of Hardware types select **SCSI controllers** and click **Next>**.
- In the list of SCSI controllers select **Insignia SCSI Adaptor** and click **Next>**.
- Accept the default settings by clicking **Next>**.
- Click **Finish**.
- When asked for the location of file SWINSCSI.MPD enter C:\WINDOWS\SYSTEM and click **OK**.

Windows then installs Insignia's SCSI controller.

- When asked to confirm shutdown, click **Yes**. SoftWindows 98 now quits.
- Restart **SoftWindows 98**.

You will now be able to access SCSI devices.

If your CD-ROM is not SCSI, you will lose access to it when SCSI is set-up. To regain access, remove the SCSI controller (in Device Manager), then rename ISLCDROM.BAK to ISLCDROM.PDR.

Setting up memory

When you first install SoftWindows 98, a recommended PC memory configuration is set up for you, and this should not normally need to be changed.

If necessary, you can configure the PC memory using the following procedure:

- ▶ Increase the SoftWindows 98 application memory size (see column opposite).
- ▶ Change the SoftWindows 98 PC memory configuration in the **Memory** panel of the **SoftWindows 98 Setup** dialog box.

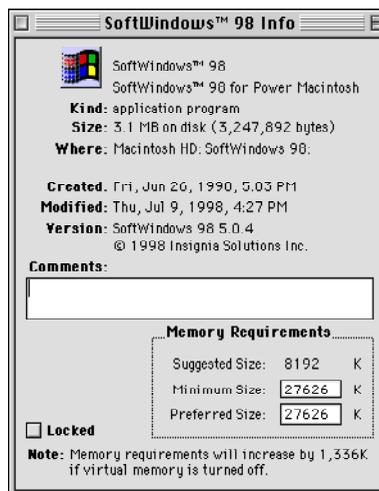
All available memory not used for PC memory or display memory is allocated to the CPU Memory, to improve the performance of SoftWindows 98.

These steps are described in greater detail in the following sections.

To change the application memory size

- ▶ Select the **SoftWindows 98** icon.
- ▶ Choose **Get Info** from the Finder's File menu.

This dialog box shows the Minimum and Preferred sizes to be used for SoftWindows 98; for example:



For each 1 Mbyte of additional PC memory you want to use, you need to increase the Minimum and Preferred memory sizes by 1030 Kbytes.

The amount of memory you need also depends on the size of the Windows desktop and the number of colors used for it. For best performance allocate as much memory as possible to SoftWindows 98.

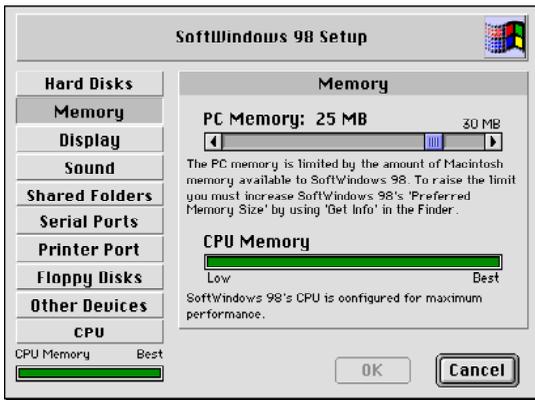
- ▶ Click the close box, in the top left corner of the **SoftWindows 98 Info** dialog box, to use the size you have set.

Setting up memory (cont.)

To see the amount of PC memory

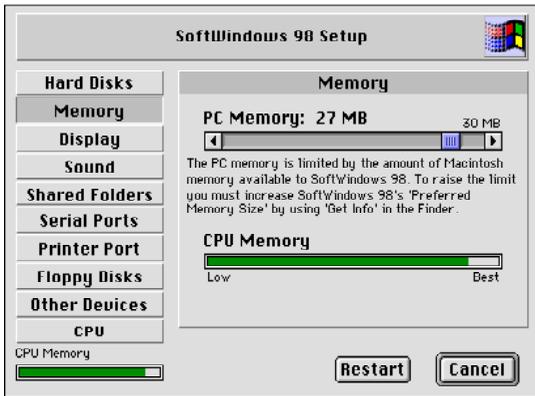
- Display the **Memory** panel in the **SoftWindows 98 Setup** dialog box.

This shows the current amount of PC memory:



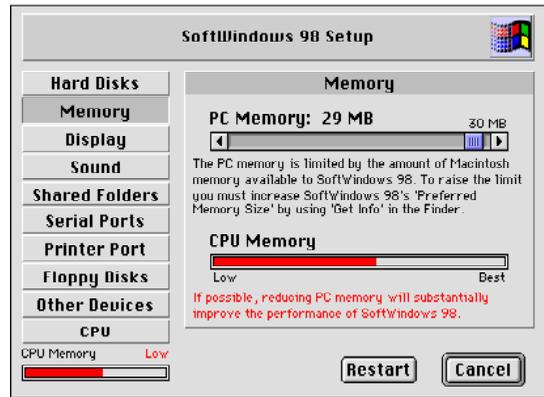
To change the PC memory

- Display the **Memory** panel in the **SoftWindows 98 Setup** dialog box.
- Drag the slider or use the left and right arrow keys to select the amount of memory:



You can choose any amount of PC memory up to the amount of available memory, as shown by the maximum setting of the slider.

For best performance the **CPU Memory** indicator should be at **Best**. If you set the **PC Memory** too high you will be warned that this will reduce the performance of SoftWindows 98:



In this case, increase the total amount of memory available by increasing the application memory size; refer to *To change the application memory size* on the previous page.

- Click **Restart** to restart SoftWindows 98 with the memory configuration you have selected.

If you change the PC memory, you need to restart SoftWindows 98.

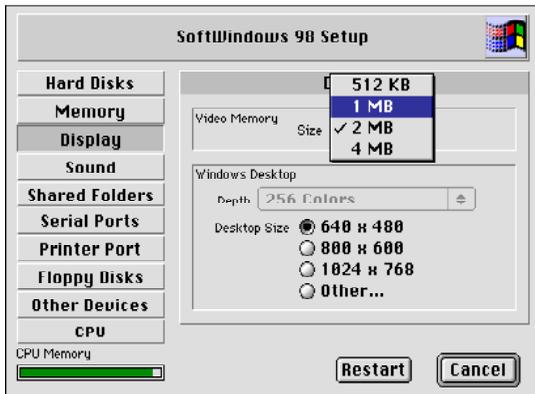
Setting up the display

SoftWindows 98 provides a display resolution of up to 1600 x 1200, and from 16 colors to millions of colors.

The available resolution and number of colors are limited by the amount of video memory available. You can change the video memory using the **Display** panel in the **SoftWindows 98 Setup** dialog box.

To change the display memory

- ▶ Display the **Display** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Choose the amount of memory from the **Video Memory** pop-up menu.



To use more colors or a larger desktop size you may need to increase the **Video Memory** setting.

If this reduces the **CPU Memory** below the **Best** setting, make more memory available by reducing the amount of PC memory, or increasing the application memory size. See the previous pages for details of changing memory.

To optimize the position of the SoftWindows 98 window

- ▶ Choose **Best Window Position** to move the Windows desktop to the position on the screen that gives optimum performance.

Setting up the Windows desktop

SoftWindows 98 includes a Windows Display Driver that improves the performance of Windows graphics. It also allows you to run Windows in a window of any size, up to 1600 x 1200.

To use a larger desktop or more colors you may need to increase the **Video Memory** setting. If this reduces the **CPU Memory** below the **Best** setting, make more memory available by reducing the amount of PC memory, or increasing the application memory size. [See page 111](#) for details of changing memory.

To move the Windows desktop

- ▶ Hold down the option and  keys.

The cursor changes to a  symbol.

- ▶ Drag the window to the position you want.

To select a size for the Windows desktop

- ▶ Choose the size you want from the **Windows Desktop** submenu on the **Setup** menu, or using the **Display** option from the **SoftWindows 98 Setup** dialog box.

The desktop will be resized immediately.

To change the size of the Windows desktop

- ▶ Hold down the option and  keys.
- ▶ Move the mouse pointer to the lower right corner of the Windows desktop.

The cursor changes to a  symbol.

- ▶ Drag the window to the size you want.

To zoom the Windows desktop to fill the screen

- ▶ Hold down the option and  keys.
- ▶ Move the mouse pointer to the top right corner of the Windows desktop.

The cursor changes to a  symbol.

- ▶ Click on the window to zoom it to fill the screen.

Alternatively you can choose **Zoom** from the **Windows Desktop** submenu on the **Setup** menu.

To restore the Windows desktop to its original size

- ▶ Hold down the option and  keys.
- ▶ Move the mouse pointer to the top right corner of the screen, so the pointer changes to a  symbol.
- ▶ Click on the window.

Alternatively hold down the  key to display the menu bar and choose **Zoom** from the **Windows Desktop** submenu on the **Setup** menu.

Setting up the Windows desktop (cont.)

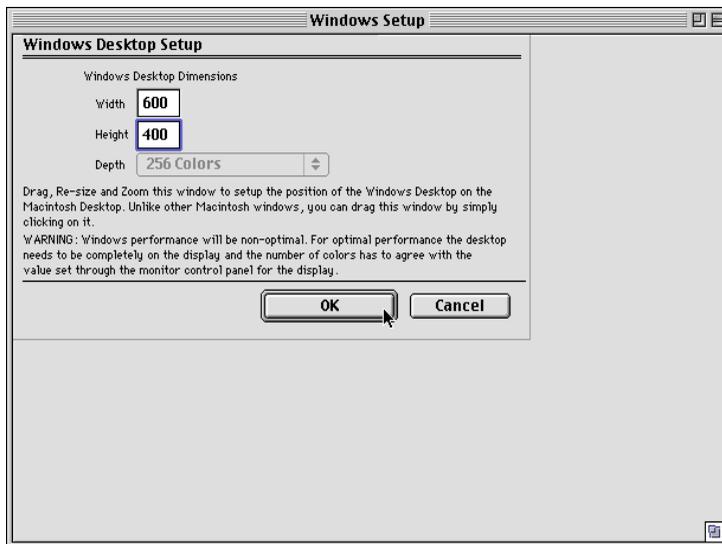
To specify the Windows desktop size and position

- ▶ Choose **Other...** from the **Windows Desktop** submenu on the **Setup** menu, or using the **Display** option from the **SoftWindows 98 Setup** dialog box.

The **Windows Setup** window is displayed, to allow you to specify the size and position of the Windows desktop.

The Macintosh menu bar is hidden so that you can use the full Macintosh screen if you wish.

You can move the **Windows Setup** window to the position you want it on the screen by clicking on any part of the window and dragging to the position you want.



To select the number of colors for Windows

- ▶ Click **Start**, then click **Settings** and **Control Panel**.
- ▶ Double-click the **Display** icon in the **Control Panel** folder.
- ▶ In the **Display Properties** dialog box click the **Settings** tab.
- ▶ Select **16 Color**, **256 Color**, **High Color** (thousands of colors), or **True Color** (millions of colors) from the **Color palette** drop-down list box, as required.

For best performance set the **Color palette** and your **Macintosh Monitors** control panel to the same setting. The **256 Color** option is optimal.

- ▶ Click **OK** to change the number of colors.
- ▶ Windows 98 then prompts you to restart Windows 98 - confirm this.

Setting up sound

SoftWindows 98 emulates a PC with both a Sound Blaster card and a generic Windows sound card. Either or both can be used to play sound using the Macintosh sound system.

These sound cards are for supported for playback **only** - not for recording.

Using Sound Blaster in Windows

Both Sound Blaster cards emulated by SoftWindows 98 are plug-and-play devices, and will automatically be recognized by Windows. This also means that if you change between the emulated cards in the **SoftWindows 98 Setup** dialog box and restart Windows, the correct Sound Blaster driver will automatically be loaded for whichever card is in use. SoftWindows 98's MPU-401 MIDI device is also a plug-and-play device.

If both the **Windows Sound Driver** and **Sound Blaster** options are selected in the **SoftWindows 98 Setup** dialog box, then Windows behaves like a PC with two separate sound cards installed. These sound cards are totally independent of one another and can, if you wish, be used simultaneously.

To provide Sound Blaster support

- ▶ Display the **Sound** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Select the **Sound Blaster** support you want from the **Sound Blaster** pop-up menu.



For best results choose **Sound Blaster Pro**. If your software supports **Sound Blaster 16** choose this option for optimum sound quality, although this may reduce performance.

For more information refer to *Using Sound Blaster in Windows* at the start of this page.

The **Windows Sound Driver** box should normally be left checked, whether or not you select Sound Blaster.

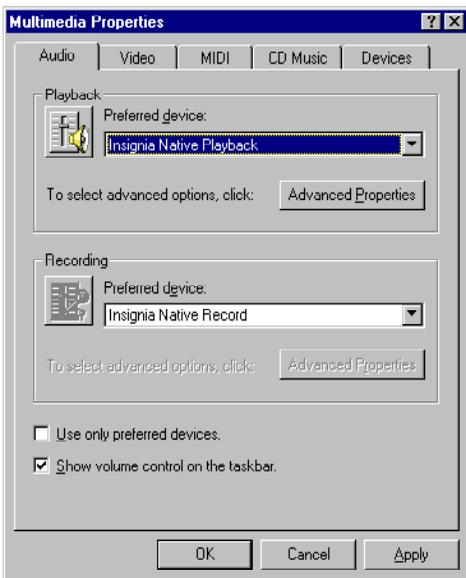
To disable Sound Blaster

- ▶ Display the **Sound** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Choose **None** from the **Sound Blaster** pop-up menu.

Setting up sound (cont.)

To specify the default audio playback device

- Change the **Preferred device** option for **Playback** in the **Audio** tab of the **Multimedia** control panel.



The following options are available:

<i>Preferred device</i>	<i>Description</i>
Insignia Native Playback	Insignia's Windows Sound Driver
Sound Blaster Playback (220)	Sound Blaster Pro
SB16 Wave Out [220]	Sound Blaster 16

Other audio devices in the selection list can be used for audio output by an application if the preferred device is busy, or if it does not support an audio format required by the application. For example, if an application requires CD audio quality, it will use the Windows Sound Driver even if Sound Blaster Pro is the preferred device.

In general the Windows Sound Driver will produce clearer audio than the Sound Blaster emulation where simple streaming audio is required, such as playing WAV files using MediaPlayer. On faster Macintoshes however, the difference becomes less marked or disappears altogether.

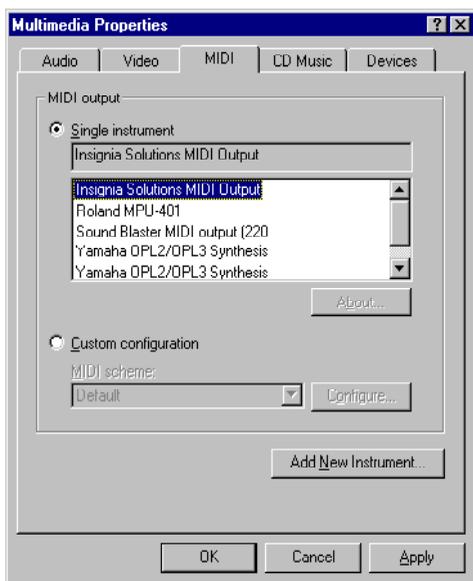
To record audio

SoftWindows 98 does not support the audio recording or MIDI input facilities of Sound Blaster cards. However, audio recording is supported from Windows 98 using Insignia's Windows Sound Driver. To record audio ensure that the **Preferred device** for recording in the **Multimedia** control panel is set to **Insignia Native Record**.

Setting up sound (cont.)

To specify the default MIDI playback device

- Change the selected device in the **MIDI** tab of the **Multimedia** control panel.



Up to four devices may be listed depending on which of the **Windows Sound Driver** and **Sound Blaster** options are enabled:

<i>Preferred device</i>	<i>Description</i>
Insignia Solutions	Recommended if the WAVE & MIDI Sound Windows Sound Driver System is enabled.
MPU-401 Compatible	Recommended if the Windows Sound Driver is not enabled.

<i>Preferred device</i>	<i>Description</i>
Creative Labs Sound Blaster Pro	Not recommended.
Internal OPL2/OPL3 FM Synthesis	Not supported.

FM synthesis is used by older games for background music or effects. SoftWindows 98 does not emulate the FM synthesis hardware; however, many games that use FM synthesis can optionally be configured to use General MIDI instead which is fully supported by SoftWindows 98.

Games written to run under Windows will generally use Microsoft's new DirectSound interface to produce audio output. This can produce sound output using both digital audio and MIDI devices and is supported by both the Windows Sound Driver and both Sound Blaster emulations.

The preferred device for DirectSound output is the same as that specified in the **Audio** tab of the **Multimedia** control panel.

Large video clips played back using ActiveMovie may lose synchronization between the sound and video when using the Windows Sound Driver (the sound will complete before the video does). The same clip should play correctly if the Sound Blaster device is specified as the preferred device for audio playback.

Setting up MIDI

SoftWindows 98 allows you to play PC MIDI files with the Macintosh sound system, using the **QuickTime** and **QuickTime Musical Instruments Extensions** extensions in your Macintosh **Extensions** folder. For information about installing these refer to Chapter 1.

To play MIDI files using QuickTime

- ▶ Display the **Sound** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Choose **QuickTime** from the **MIDI Output Use** pop-up menu.



This is the default setting.

To play MIDI files to an external MIDI device

- ▶ Set the MIDI device to 38400 baud, 8 data bits, no parity, 1 stop bit.
- ▶ Connect the device to an unused Macintosh serial port, using a suitable serial cable or a Macintosh MIDI interface.
- ▶ Display the **Sound** panel in the **SoftWindows 98 Setup** dialog box.
- ▶ Choose **Modem Port** or **Printer Port**, as appropriate, from the **MIDI Output Use** pop-up menu.
- ▶ Choose **Serial Cable** from the **Interface** pop-up menu if you are connecting via a direct serial connection to a MIDI device such as a keyboard.

If necessary set **COM1:** or **COM2:** to **None** in the **Serial Ports** panel of the **SoftWindows 98 Setup** dialog box to make the port available.

Alternatively, if you are connecting to a MIDI device via a Macintosh MIDI translator box (such as Altech Systems' MIDI Interface for Macintosh) choose **0.5 MHz MIDI Interface**, **1.0 MHz MIDI Interface**, or **2.0 MHz MIDI Interface** from the **Interface** pop-up menu depending on the clock speed of the device.

To play MIDI files in Windows

For the best results set up Windows as [described in page 49](#).

Setting up serial ports

The SoftWindows 98 serial ports can be used to connect modems, printers, and other kinds of serial devices to your Macintosh computer's serial (modem or printer) ports.

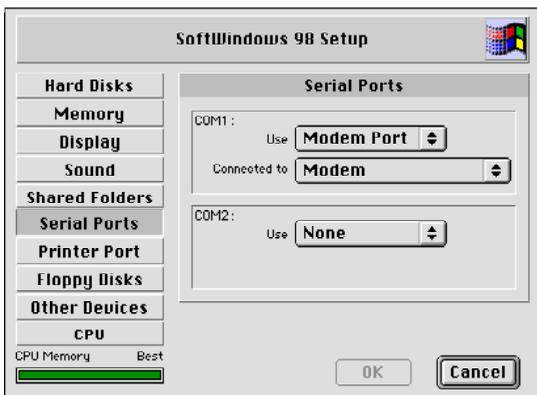
To use a serial device with SoftWindows 98 you need:

- An external serial device, internal modem, or network device that can be connected to a Macintosh serial port.
- A suitable cable.
- PC software that communicates via a serial port.
- COM1: or COM2: assigned to the Macintosh serial port.

To display the current serial port settings

- Display the **Serial Ports** panel in the **SoftWindows 98 Setup** dialog box.

This shows the Macintosh port assigned to the PC ports COM1: and COM2:, and the device type connected to each port:



To set up a serial port

- Display the **Serial Ports** panel in the **SoftWindows 98 Setup** dialog box.
- Choose the option from serial port's **Use** pop-up menu.

The following options are available:

<i>Select this option</i>	<i>To do this</i>
Modem Port, Printer, Port, Printer/Modem Port †, or Upper/Lower PC Card Slot †	Use the specified Macintosh port.
None	Leave the port unassigned.
Text File...(COM1: and COM2:only)	Send output to a Macintosh text file document. No input is allowed.

† PowerBook only.

If either Macintosh port is already in use the corresponding option will be dimmed on the pop-up menu.

Setting up serial ports (cont.)

The **Connected to** pop-up menu allows you to specify the type of device connected to the port. This provides the following options:

Select this option	For
Modem	To connect to a modem.
Another computer	To connect to another computer.
Printer	To connect to a printer.
Printer requiring flow control	To connect to a slow serial printer using handshaking to avoid losing data

For details of these options refer to *Serial device options* on the next page.

To save output to a file

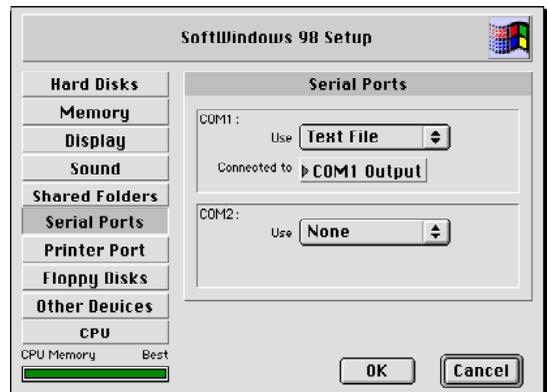
- Choose **Text File** from the **COM1:** or **COM2:** Use pop-up menu.

This dialog box allows you to specify the file to save the output as:



- Enter a name for the text file and click **Save** to create the file.

The filename is shown in the **Serial Ports** panel of the **SoftWindows 98 Setup** dialog box:



Each time you send output to the serial port it will be added to the end of the file.

Serial port specifications

Data rates

SoftWindows 98 supports the following serial port transmission rates, in bits per second:

300	1200	2400	4800	7200
600	1800	3600	9600	19200

The data transfer rates which SoftWindows 98 can handle depend on the speed of your Macintosh. In general, note the following:

- When sending data from SoftWindows 98 any data rate (baud rate) can be used.
- When receiving data into SoftWindows 98 choose a lower data rate if you are running on a slower Macintosh.

Setting up serial ports (cont.)

You can trade off speed for block size – at higher speeds keep the data block size small (100–200 bytes).

If the incoming data rate is too high some of the data may be lost and serial communications programs will not be able to connect. Reduce the rate if you have problems.

Protocols

Supported serial port transmission protocols:

Parity:	Even, Odd, None, Mark, or Space.
Data bits:	5, 6, 7, or 8.
Stop bits:	1, 1.5, or 2.

Default settings

By default, COM1: is set to have the following communications settings:

9600 baud, no parity, 8 data bits, 1 stop bit.

Serial device options

This section gives details of the different serial device options in the **PC Serial Ports** dialog box.

Modem

Hayes-compatible modems and PC communications programs work well with SoftWindows 98. Most modems that work with Macintosh applications will also work with PC software running in SoftWindows 98.

Printer

If you are using a serial printer with SoftWindows 98, and your PC program is sending output directly to it, you should make sure that you have the correct cable. The printer may need to be configured to match the serial port settings of SoftWindows 98; refer to *Serial port specifications* on their previous page.

Problems with serial printing may be due to handshaking; that is, the interchange of signals between the program and the printer to ensure that data is not sent before the printer can accept it.

Printer requiring flow control

This option converts XON/XOFF software handshaking into hardware handshaking as far as the PC program is concerned. This is only needed because most PC programs use hardware handshaking and a few devices, especially printers, use only software handshaking.

Setting up serial ports (cont.)

If you are using the correct cable to your printer, and both printer and PC program use hardware handshaking, you should print successfully.

If you have printing problems, try to configure your printer and PC program to use software handshaking.

If your program cannot be configured for software handshaking, make sure that the printer is using XON/XOFF and select **Printer requiring flow control** from the appropriate **Connected to** pop-up menu in the **PC Serial Ports** dialog box. SoftWindows 98 will then convert the software signals sent by the printer into emulated hardware signals that your PC program can understand.

Other devices

Other serial devices may or may not work, depending on their requirements and how configurable they are. Almost any device that uses software flow control will work.

Another computer

Select this option to connect to another computer.

Cables

The Apple Peripheral-8 cable or equivalent will work for connecting an Apple modem, an ImageWriter II, or LaserWriter printer to a serial port. For other modems use a Macintosh-to-Hayes cable. For other printers use a Macintosh-to-ImageWriter I cable.

Limitations

Programs that do not work well are those that are extremely timing-sensitive or rely on serial port lines that are not available on the Macintosh serial port.

SoftWindows 98 has no access to the DSR, DCD, or RI signals, and the RTS line cannot be set up due to the lack of lines. Instead, SoftWindows 98 makes the DSR and RLSD/DCD lines have the same status as the DTR line. RI is always set to off.

Please note: Copy-protection locks, also known as dongles, do not work on SoftWindows 98 due to unavoidable timing variations in its processing of serial port signals through the Macintosh serial port driver.

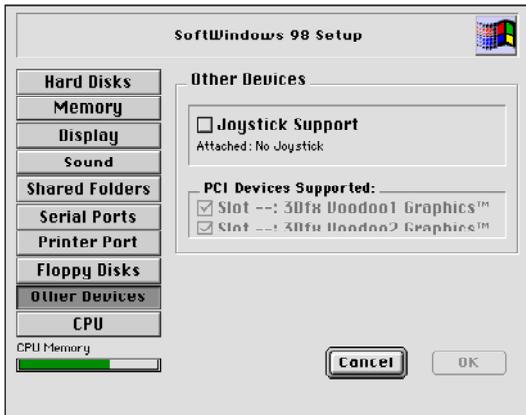
Setting up other devices

SoftWindows 98 allows you to use a Macintosh joystick with PC programs, such as games, that use a joystick.

It also supports a number of other PCI devices, so that you can take advantage of graphics cards and accelerators fitted to your Macintosh, and use them with PC programs or games.

To use a Macintosh joystick

- Install the Macintosh joystick software in the usual way.
- Turn off the joystick mapping features, so that the joystick does not control the mouse or keyboard.
- Display the **Other Devices** panel in the **SoftWindows 98 Setup** dialog box:



- Select **Joystick Support** and click **Restart** to restart SoftWindows 98 to use a joystick.

To run 3Dfx games on your Macintosh

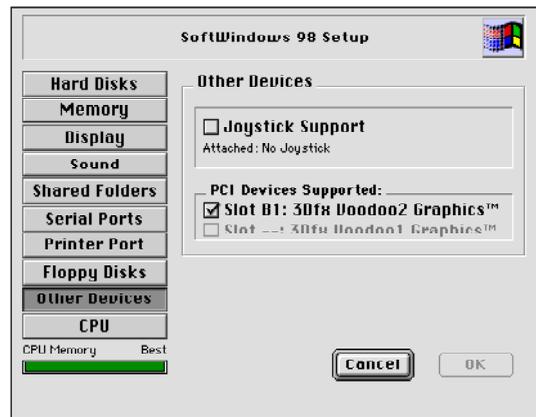
SoftWindows 98 allows you to use a Voodoo 1 or Voodoo 2 graphics card in your Macintosh, for improved graphics performance. You will need:

- A Power Macintosh with a relevant graphics card (or PC equivalent) already installed
- A Multi-Scan monitor

If using a PC graphics card, you also need the necessary VGA-to-Macintosh cable adaptor.

Installing Voodoo drivers

SoftWindows 98 will automatically detect and configure Voodoo 1 or Voodoo 2 graphics cards. To check this, open the **Other Devices** panel in the **SoftWindows 98 Setup** dialog box. For example:



If the entry is grayed out your card may not be installed correctly. To use these graphics cards, you will also need to install the relevant drivers in Windows 98, as described on the next page.

Setting up other devices (cont.)

Loading graphics drivers

SoftWindows 98 comes with Glide and Direct 3D drivers pre-installed for Voodoo 1 graphics cards. If you install a Voodoo 1 card in your Macintosh, you will not need to add any drivers.

If you install a Voodoo 2 graphics card, Windows 98 will detect that card the next time it is booted. The drivers for Voodoo 2 are supplied in the WIN98 directory on the WIN98DATA CD-ROM. You will be asked to locate these drivers when Windows 98 detects the card.

When you start Windows 98 after installing a Voodoo 2 graphics card, Windows 98 plug and play will detect the PCI Multimedia Device and ask you for the drivers.

To install the drivers

- Ensure the WIN98DATA CD-ROM is inserted.
- Click **Next** to proceed, when prompted.
- When the following screen appears:



- Click the **Specify a location** button, and ensure that the location is F:\WIN98. Click **Next** to proceed.

- Windows 98 will then locate the relevant driver. Click **Next** to proceed.
- Windows 98 copies the relevant files from the WIN98DATA CD to your Windows 98 system, then builds a driver information database.
- Click **Finish** when prompted.
- Click **Yes** when prompted, to re-start Windows 98. When Windows 98 re-starts, it will be configured to use your graphics card.

To play 3Dfx games with SoftWindows 98

Once you have installed the graphics card and drivers, you can install and run your 3Dfx games as you would on a PC.

When running games in 3Dfx mode it is normal for them to take up the whole of the display.

To switch to the Macintosh display:

- Press **⌘** Option Home.

To switch back to the 3Dfx display:

- Press **⌘** Option End.

Setting up other devices (cont.)

Checking installation

To confirm that the 3Dfx drivers have been installed correctly:

- Open the Windows 98 **Display** control panel and check that it has a **3Dfx Voodoo** tab.
- Open the Windows 98 **System** control panel, click the **Device Manager** tab, and check that the **Sound and Video** section contains a **Voodoo Graphics** device. Also check that there is not an **Unknown Device** section, identified by a yellow question mark. If there is, see the following troubleshooting section.

Troubleshooting graphics card installation

This section gives solutions to potential problems that can occur when using 3Dfx graphics cards from Windows 98.

Windows 98 cannot see the 3Dfx video card

- Check that the **Windows 98 Display** control panel includes a **3Dfx Voodoo** tab.
- Check that the **Windows 98 System** control panel **Device Manager** tab **Sound and Video** section shows a **Voodoo Graphics** device.

Unknown Device in Windows 98 System Control Panel Device Manager

This problem may arise if you have upgraded your PC operating system to Windows 98 after installing the 3Dfx card in your Macintosh. To solve this problem, remove the **Unknown Device** and restart Windows 98.

Windows 98 plug and play will then install the correct drivers as described in the installation procedure previously.

Re-Installing drivers from PC Extras

The Direct 3D Voodoo 1 drivers are supplied by Microsoft in Windows 98, and so are re-installed automatically if needed.

If for some reason you need to re-install the Voodoo 1 Glide drivers, they are also supplied on the SoftWindows 98 Installation CD. The Voodoo 2 Glide and Direct 3D drivers are also supplied on that CD (and on the WIN98DATA CD as described earlier).

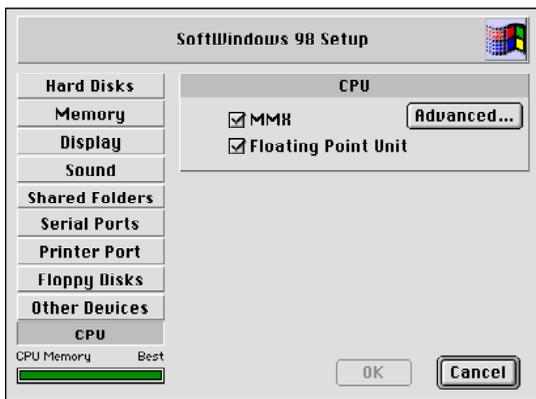
- Ensure you set up the **PC Extras** folder as a shared folder, to access the files from SoftWindows 98. [See page 107](#) for details of setting up a folder as a shared folder.
- To re-install the Voodoo 1 Glide drivers, open the **Voodoo 1** folder on the shared folder, and then double-click the **grtvgr.exe** file. Follow the instructions to install the Glide drivers.
- To obtain the Voodoo 2 drivers (also supplied in the WIN98 directory on the WIN98DATA CD) open the **Voodoo 2** folder, and double-click the **rkV2.exe** file. You will need to supply a location to expand the file to. These expanded drivers will then be available for the Windows 98 hardware wizard when required.

Setting up the CPU emulation

Default CPU emulation settings are ideal to run most PC programs. However, for some programs, you may be able to improve performance or compatibility by selecting specific CPU settings.

To see CPU emulation settings

- Display the CPU panel in the SoftWindows 98 Setup dialog box:



To disable the floating point unit (FPU)

You may need to disable the FPU if you are running a PC application which is written to use the FPU, and which does not appear to run properly with the emulated FPU. The Macintosh FPU has a different precision to the Pentium FPU, so there may be a few applications that do not run properly.

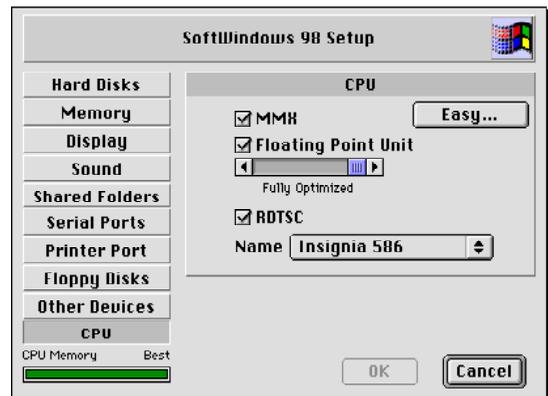
- Display the **CPU** panel in the **SoftWindows 98 Setup** dialog box.
- Uncheck the **Floating Point Unit** option.
- Check **Restart** to restart SoftWindows 98 without FPU emulation.

To disable MMX instructions

If MMX is not required, unchecking the **MMX** option may improve performance.

To select advanced CPU options

- Click **Advanced...** to display the advanced CPU options:



The options are explained below:

The **Floating Point Unit** slide bar shows the level of floating point optimization. We recommend you select **Fully Optimized** for most applications.

RTDSC is selected on by default. This is required for some applications, including NASCAR 2. Unchecking this option may improve performance if it is not required.

Name is set to Insignia 586 by default. This can be changed to **Industry Standard** (required by some applications, including NASCAR 2 and Power Chess).

:

Setting up printing

SoftWindows 98 allows you to print to any printer connected to your Macintosh, and use all of its features, including color.

We recommend you use the Insignia Printer Driver, which is provided with SoftWindows 98, and which allows you to print from Windows applications to any Macintosh printer.

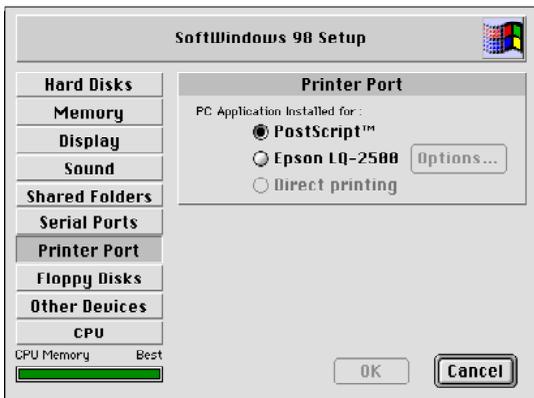
Alternatively, you can select an appropriate Windows printer driver for your printer, and then use one of the **Printer Port** options to emulate that type of printer.

For more information about printing from Windows refer to Chapter 3 (Using Windows 98).

To see printer emulation options

- Display the **Printer Port** panel in the **SoftWindows 98 Setup** dialog box.

This shows the current printer emulation:



To choose the printer emulation

- Display the **Printer Port** panel in the **SoftWindows 98 Setup** dialog box.
- Select the printing option you want to use:
 - PostScript printing - see below for details.
 - Epson LQ-2500 - see the next page for details.
 - Direct Printing - [see page 131](#) for details.

Note that these options are ignored if you are using the Insignia Printer Driver from Windows.

To set up printing to a PostScript printer

This is the default option. Use this if you have access to a PostScript printer, such as a member of the Apple LaserWriter family, and you are using a PostScript Windows printer driver. SoftWindows 98 will send the output to the printer without conversion.

- Select the PostScript printer connected to your Macintosh or to your network in the Macintosh **Chooser**.
- Choose **SoftWindows 98 Setup** from the **Setup** menu and click the **Printer Port** button to display the currently-selected printer support:
- Select **PostScript** and choose **OK**.
- In Windows click **Start**, then click **Settings** and **Printers** to display the **Printers** folder.
- Select **Apple LaserWriter**, and choose **Set As Default** from the **File** menu.

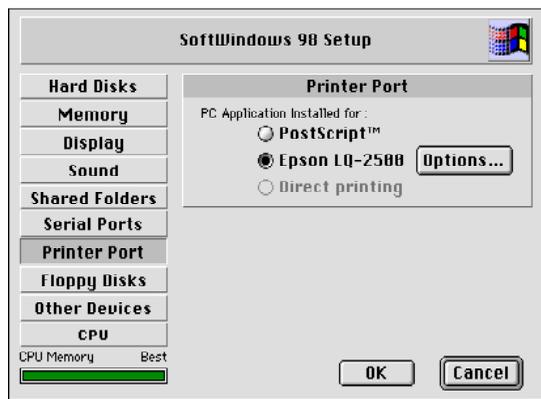
Setting up printing (cont.)

Choosing Epson LQ-2500 printing

Choose **Epson LQ-2500** to emulate an Epson LQ-2500 dot-matrix printer on any Macintosh printer, for fast draft printing. SoftWindows 98 converts the output and formats it for the printer you selected in the Macintosh Chooser.

The **Epson LQ-2500** option supports the IBM extended character set, including graphics characters, so choose this option if you want to use the **Print Screen** command from Windows 98. You can also set LQ-2500 emulation options, for extra print control - [see page 129](#) for details.

- Select **Epson LQ-2500** in the **Printer Port** panel of the **SoftWindows 98 Setup** box.



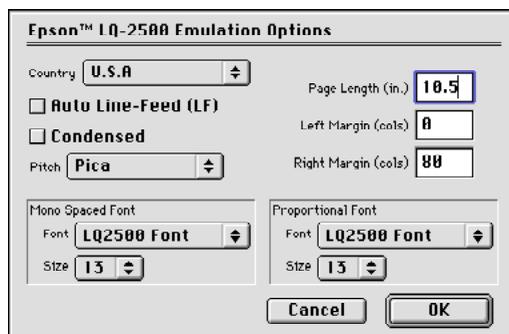
- Click **OK**, or select **Options...** to change the emulation options (see the next section)
- In Windows click **Start**, then click **Settings** and **Printers** to display the **Printers** folder.
- Select **Epson LQ-2500**, and choose **Set As Default** from the **File** menu.

Note that this option uses Insignia fonts to give the correct fonts when printing. These are installed automatically by the Easy Install option. To re-install them, [refer to page 15](#) (*Installing additional SoftWindows 98 options*).

To set Epson LQ-2500 emulation options

- Click **Options** to set up the Epson LQ-2500 emulation options.

These correspond to the most important options available on the Epson LQ-2500:



Country

Allows up to 12 special characters to be printed, depending on the country selected. If you are using an application designed for a different national language, select the language you want to use from the pop-up menu.

Auto Line-Feed (LF)

Prints a line feed after every carriage return. If your printed output has unwanted double spacing, the application is already including line feeds and you should uncheck this option.

Setting up printing (cont.)

Condensed

Condenses the characters horizontally to 60%. Check this option if you want to fit 132 column printing across the width of US letter size or A4 paper.

Pitch

Choose the pitch setting you want from the pop-up menu.

Pica, the default, gives 10 characters per inch and is the recommended setting.

Elite (12 characters per inch) and 15 pitch (15 characters per inch) reduce the horizontal spacing to fit more characters on a line. The character size and line spacing are set by the **Mono Spaced** font size.

Proportional selects proportional printing.

Mono Spaced Font and Proportional Font

By default, two LQ-2500 fonts are selected which emulate the character sets and spacing of the monospaced and proportional fonts found on an LQ-2500. Alternatively, you can select any font on your Macintosh for either of these two fonts. For best results you should use only monospaced fonts (such as Courier or Monaco) for the **Mono Spaced** Font option. The font size chosen for the **Proportional Font** option should be similar to that already chosen for the monospaced font, because the size selected for the monospace font governs the character size and line spacing of the proportional font as well.

Page Length

Specifies the length of the printed area to the nearest 0.5 inches.

The **Page Length** is initially set to the length of the paper selected in the Page Setup dialog box; for example, 11 inches for US Letter paper.

Left Margin

Specifies the number of columns used for the left margin. At the default **Pica** pitch there are 10 columns per inch.

You can ignore this option if you are using an application, such as a word processor, which sets the margins itself.

Right Margin

Specifies the number of columns to be used for the right margin. The right margin will only need to be set if the application is assuming a narrower page width and the lines of print are wrapped round, or the application is assuming a wider page width and the lines of print run over the paper edge.

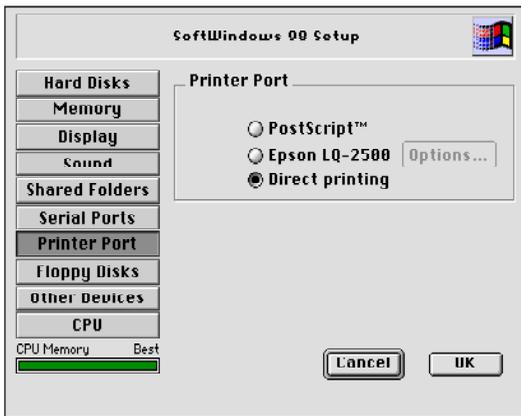
Setting up printing (cont.)

Choosing Direct Printing

Choose **Direct Printing** to print directly to a PC printer, using an appropriate Macintosh printer driver selected in the Chooser.

By default, this option is disabled (greyed-out).
To enable direct printing:

- Select a PC printer driver from the Macintosh Chooser.
- Select the same printer driver from Windows 98, using the **Printers** dialog from the **Settings** option on the **Start** bar.
- Select the **Direct Printing** option from the **Printer Port** panel of the **SoftWindows 98 setup** dialog box, then click **OK**:



Obtaining printer drivers

Macintosh printer drivers are available for a wide range of PC printers from Infowave Wireless Messaging Inc. For more information contact their Web site at:

<http://www.infowave.net>

International usage

To use an international keyboard for Windows

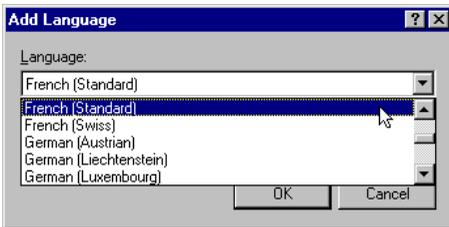
- ▶ Click **Start**, then click **Settings** and **Control Panel**.
- ▶ Double-click the **Keyboard** icon in the **Control Panel** folder.



Keyboard

The **Keyboard Properties** dialog box is displayed.

- ▶ Click the **Language** tab to display the Language panel.
- ▶ Click **Add...** to display the **Add Language** dialog box.
- ▶ Select the language you want to use from the drop-down list box, and click **OK**.



- ▶ Click **Set as Default** to choose it as the default language.



- ▶ Click **OK**.

Setting up SoftWindows 98 for multiple users

To install a multi-user pack

The following procedure describes how a system administrator should set up a multi-user pack.

- Install and personalize SoftWindows 98 for your company.
- Duplicate and distribute the installed SoftWindows 98 and hard disk file to users. If installation is to be server-based, only distribute the hard disk file.

If SoftWindows 98 is going to be run from a server:

- Install SharePC using the **Custom Install** installation option; refer to [Installing additional SoftWindows 98 options, page 15](#).
- Run SharePC from the **Utilities** folder within the **SoftWindows 98** folder, and when prompted for an application select SoftWindows 98.

Now the specified number of users will be able to run SoftWindows 98 from the server.

To share data files for creating SoftWindows 98 hard disk files

You can provide the SoftWindows 98 **HDDData** file on a server to allow any SoftWindows 98 user on the network to build their own bootable (C: drive) hard disk files.

To install this file use the installer's **Custom Install** option Windows 98 Data File; [refer to page 15](#) for details..

Each user will then be able to build their own bootable hard disk files from within SoftWindows 98 using the following procedure.

- Click **Create...** in the **C: Drive** or **D: Drive** section of the **Hard Disks** panel in the **SoftWindows 98 Setup** dialog box.
- When prompted to locate the HDDData file, select the file on the file server.



Contacting Insignia

Software registration

Software registration allows you to receive full benefits of Insignia Solutions' customer services. Please run the SoftWindows 98 Registration program, or fill out and mail the Registration Card.

Periodically, Insignia Solutions make available upgrade/update versions of certain programs at a modest charge to registered customers. As a registered customer, Insignia will notify you of upgrades/updates. As a registered user, you will have full access to Insignia's customer service and technical support organizations.

Media replacement

Replacement CD-ROMs are available only if your Warranty Registration Card is on file. A charge applies in some circumstances. Please contact our technical support organization to verify defective media.

Internet access

For information about Insignia products, contact <http://www.insignia.com>.

Product upgrades

To upgrade your Insignia product, contact customer services:

USA/Canada

Phone: (510) 360-3700 or 800-848-7677
E-mail: Maccs@isinc.insignia.com

Europe, Middle East, Africa, CIS countries

English: +44 (0) 1429 855020
German: +44 (0) 1429 855030
French: +44 (0) 1429 855028
Fax: +44 (0) 1429 521008 (all languages)
E-mail: info@isltd.insignia.com

Technical support

Technical support is available Monday to Friday.

The information below will be helpful if you need to call for technical assistance. Please take a moment to fill this out:

SoftWindows 98 serial number:

Your computer model:

RAM (Mbytes):

Your operating system:

Internet support

To gain on-line support for Insignia products, contact:

<http://www.insignia.com/Corporate/Support.html>

USA/Canada

Technical support is available from 6am to 5pm, PST, via:

Phone: (408) 739-4037

E-mail: mactech@isinc.insignia.com

Europe, Middle East, Africa, CIS countries

Technical support is available from 9am to 5pm, UK time, via:

English: +44 (0) 1429 855045

German: +44 (0) 1429 855044

French: +44 (0) 1429 855043

Fax: +44 (0) 1429 521008 (all languages)

E-mail: mactech-eu@isinc.insignia.com

Other areas

For technical support in other countries, please contact the authorized dealer in your country.

Glossary

This Glossary describes a number of terms common to the computing industry.

Application window

In Windows, the window containing the work area and menu bar for an application, giving the application's name at the top of the window.

ASPI

Advanced SCSI Programming Interface. A standard developed by Adaptec to allow PCs to access a wide range of SCSI devices.

AUTOEXEC.BAT

A special batch file that is executed each time a PC restarts.

Batch file

A text file containing DOS commands that can be executed to run the commands it contains as if they were typed in at the keyboard.

Boot

The PC terminology for starting up the computer.

CD-ROM

A read-only form of data storage, using standard Compact Disc media, capable of providing over 600 Mbytes of data.

CONFIG.SYS

A special DOS text file that contains commands to configure the DOS operating system.

Control menu box

For Windows applications, a box at the top left of the window. You can use this box to control the characteristics of the window and to switch between applications.

Directory

The PC name for a folder. As on the Macintosh, it can contain files and other directories.

DOS

A system software and filing system used on PCs.

Ethernet

A widely used network system. The Ethernet cabling system and communications method have been standardized by the IEEE 802.3 committee and by ISO. Ethernet has a default frame type of Ethernet_802.2.

Ethernet II

One of the standards that can be used on an Ethernet cabling system.

EtherTalk

Apple's data-link product, allowing an AppleTalk network to be connected by Ethernet cables. It is an Apple Computer networking standard which is based on, and is compatible with, Ethernet.

Expanded memory

The LIM (Lotus, Intel, Microsoft) standard to extend the amount of memory available to PC applications beyond their original 640 Kbytes.

Extended memory

The XMS (Extended Memory Specification) to extend the amount of memory available to PC applications via 80286 or better protected mode.

Extension

The last part of a DOS filename which can be used to specify the type of file. It consists of a period and up to three letters; for example, .BAT.

FDHD

An alternative name for the Macintosh SuperDrive.

Frame

A unit of information that is transmitted over the network. It is also referred to as a message packet. Your frame structure can differ depending on the frame type in use. You should ensure that your computer is configured for the appropriate frame type.

Frame type

A variation of a protocol, defining the internal structure of a packet. When setting up networking you need to ensure the correct frame type is selected for your network.

IEEE (or ISO) 802.3

A standard developed for Ethernet networks, defining the physical cabling and software protocols. See Frame type.

Internet

An internet is an interconnected group of networks. When written as Internet it refers specifically to the Information Superhighway.

IPX (Inter-network Packet eXchange)

The Novell communication protocol. It creates, maintains, and terminates the connections between network devices (such as computer file servers and routers). It also addresses and routes the outgoing data packets across the network.

ISO 9660 standard

An international format standard for CD-ROMs.

Local Area Network (LAN)

A Local Area Network consists of computers and shared devices connected to a single network transmission cable in a limited area, usually a single building or section of a building.

MIDI

Musical Instrument Digital Interface; a standard format for digitally encoding music.

MMX

A technology integrated with recent releases of Intel's Pentium processors to provide multimedia extensions for use by games, education, and entertainment software.

NDIS

Network Driver Interface Specification, a standard defined by Microsoft and 3Com. It is the media- and protocol-independent driver standard used by network operating systems such as LAN Manager. SoftWindows 98 includes NDIS drivers for Ethernet and Token Ring.

Network drive

A general name for disk drives that are treated by the PC as being on a different computer. Network drives cannot be formatted or partitioned.

Network number

A number which identifies a network in an internet, so that data can be sent to the correct destination. Ethernet and Token Ring networks have network numbers.

NetWare

Novell's operating system that runs on file servers and routers. It controls system resources and information processing on an entire network or inter-network.

NuBus

A standard expansion slot for Macintosh computers, which allows Token Ring or other cards to be added. Some Macintosh computers may require a PDS to NuBus adapter to allow them to accept NuBus cards.

ODI

Novell's Open Data-Link Interface. It supports media- and protocol-independent communications by providing a standard interface that allows multiple protocols to share a single network board without conflict. SoftWindows 98 includes ODI drivers for Ethernet and Token Ring.

ODINSUP

A Novell converter program which allows the use of NDIS client applications, such as Microsoft LAN Manager, with ODI drivers.

Packet

A unit of information that has been formatted for transmission on a network. A packet contains not only data but also its destination and source.

PCI

Peripheral Component Interconnect, a standard for PC and Macintosh interface cards supported by recent Macintosh computers.

PDS (Processor Direct Slot)

An expansion slot in many Macintosh computers, providing direct connection to the processor. Some network cards are installed in the PDS rather than a NuBus or PCI slot.

Protocol

A set of procedural rules that permit the orderly exchange of information within and across a network. These rules govern the content, format, timing, sequencing, and error control of the messages being exchanged on a network.

RISC

Reduced Instruction Set Computer. A microcomputer architecture designed with a simpler instruction set to allow faster execution speeds to be achieved.

SCSI

Small Computer Systems Interface (pronounced 'scuzzy'), the industry standard for connecting peripheral devices to host computers. Most Macintosh computers have SCSI ports.

SNAP

Sub Network Access Protocol frame type. There are SNAP frame types for both Ethernet and Token Ring. They are extensions of the basic 802.3 and 802.2 frame types, allowing more addressing flexibility.

Sound Blaster

A hardware sound interface for the PC developed by Creative Technology Ltd.

SuperDrive

The dual-format 3.5-inch floppy disk drive provided on all recent Macintosh computers. It can read, write, and format both Macintosh disks and DOS disks.

SVGA

SuperVideo Graphics Array, an extension to VGA providing higher resolution and more colors.

SYSTEM.INI

A Windows initialization file.

TCP/IP

Transmission Control Protocol/Internet Protocol. A widely-used industry standard for connecting different types of computers. An internet is an interconnected set of networks.

Type

A four-character code which identifies the type of document created by an application on the Macintosh. SoftWindows 98 allows you to specify what type code is allocated to the files it creates.

Token Ring

A network with a ring layout, where all network devices are connected in a daisy chain system and pass tokens from one attached device to another.

VESA

Video Electronics Standards Association, a widely-adopted set of display standards for PCs.

VGA

Video Graphics Array, the most widely-accepted standard for PC graphics displays.

Volume

An alternative name for a disk.

VRAM

Video Random Access Memory, memory used to store the displayed image. The amount of VRAM required depends on the display resolution and the number of colors.

Windows

A Microsoft user interface for PCs, which provides windows, icons, menus, and mouse control.

WIN.INI

A Windows initialization file that allows you to customize your Windows environment.

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