



**UNIVERSITY OF UTAH**

**STUDENT COMPUTING LABS**

X

Mac OS X



**UNIVERSITY OF UTAH**  
STUDENT COMPUTING LABS

# Mac OS X Basics

University of Utah  
Student Computing Labs  
Macintosh Support  
[mac@scl.utah.edu](mailto:mac@scl.utah.edu)

# Mac OS X Install Requirements

- **Apple's minimum requirements**
  - **G3 or G4 Processor Macintosh**
    - except original G3 PowerBook
  - **128MB of RAM**
  - **3.0 GB hard drive space**
  - **Driver's for third-party hardware**
- **U of U SCL recommendations**
  - **500 Mhz G3 (G4 greatly improves performance)**
  - **256 MB RAM (more is better)**

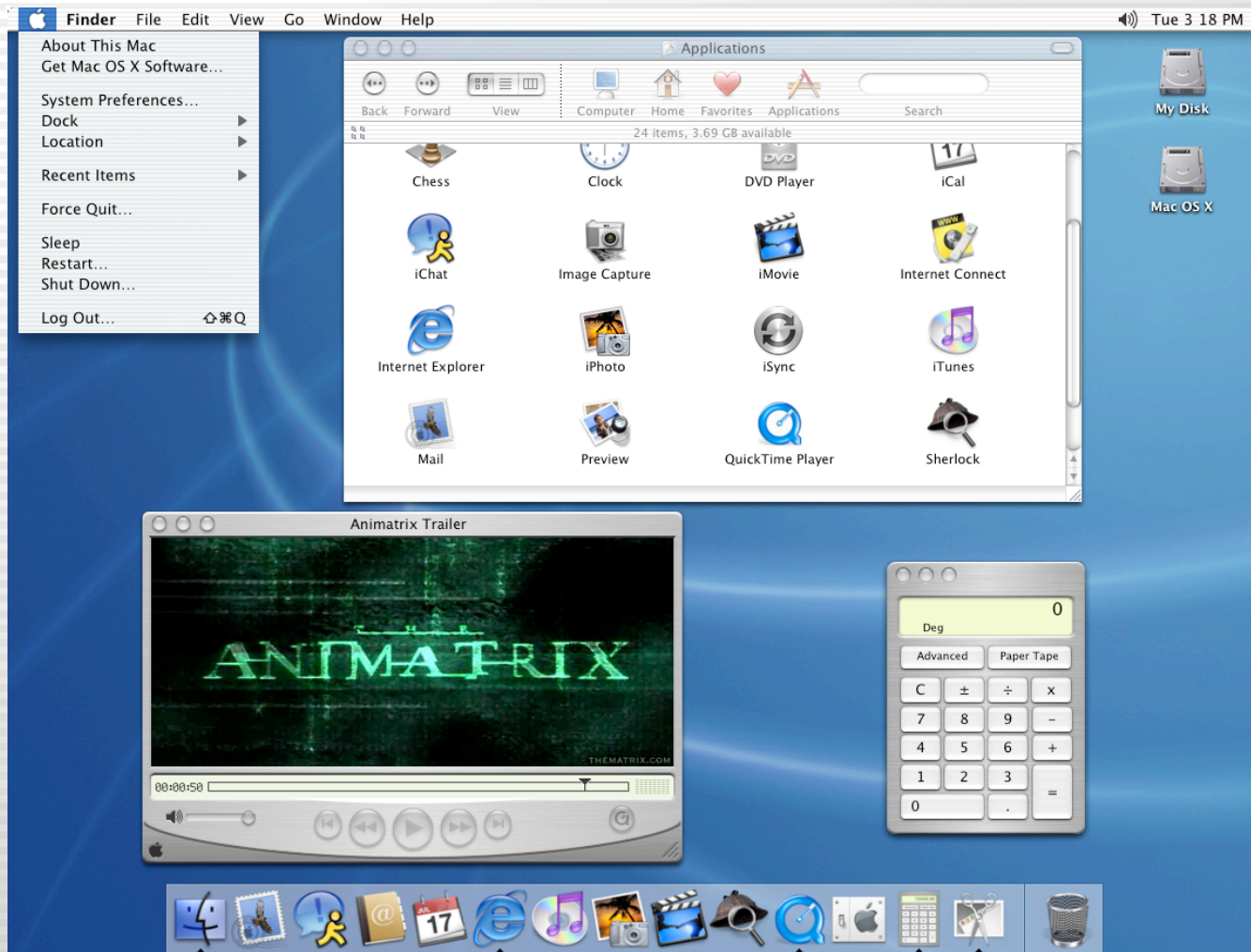
# Upgrading from OS 9 to OS X

- **Make an Upgrade Plan (TO DO LIST)!**
  - **Write down your Configuration Settings**
    - TCP/IP Address or PPP Settings
    - DNS server settings if not using DHCP
    - ISP Settings such as login, password, phone #
    - Email account settings
  - **Backup Important Data on OS 9!**
  - **Make sure you meet system requirements!**
    - Add any hardware upgrades such as memory first
  - **See <http://www.apple.com/macosx/upgrade/>**

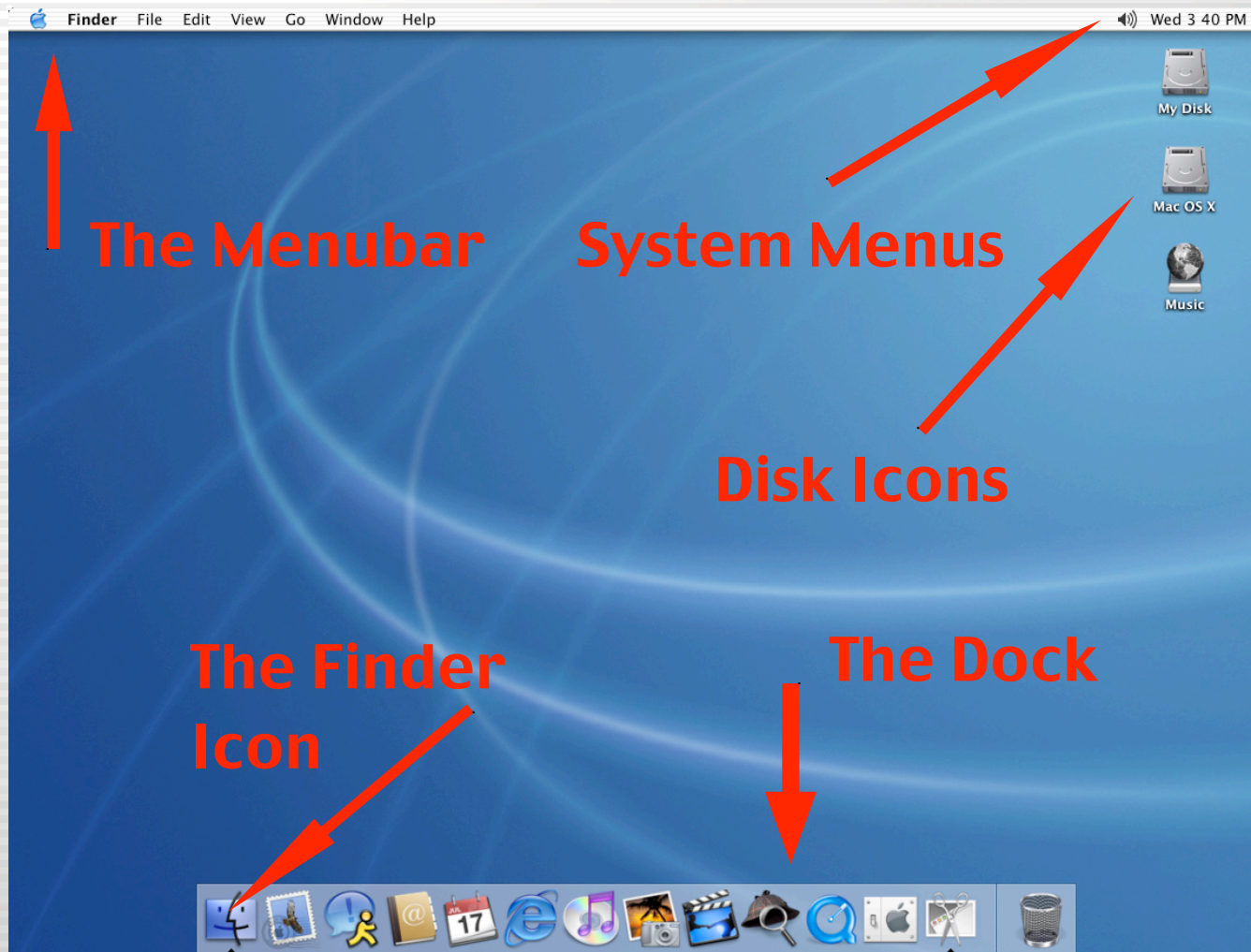
# Mac OS X Basics Overview

- **Mac OS X Interface (Aqua)**
  - Aqua Interface
  - The Menu Bar
  - The Dock
- **Using the Finder**
- **System Preferences**
  - What they are
  - What to change
- **Applications Folder**
  - Review a Mac OS X application

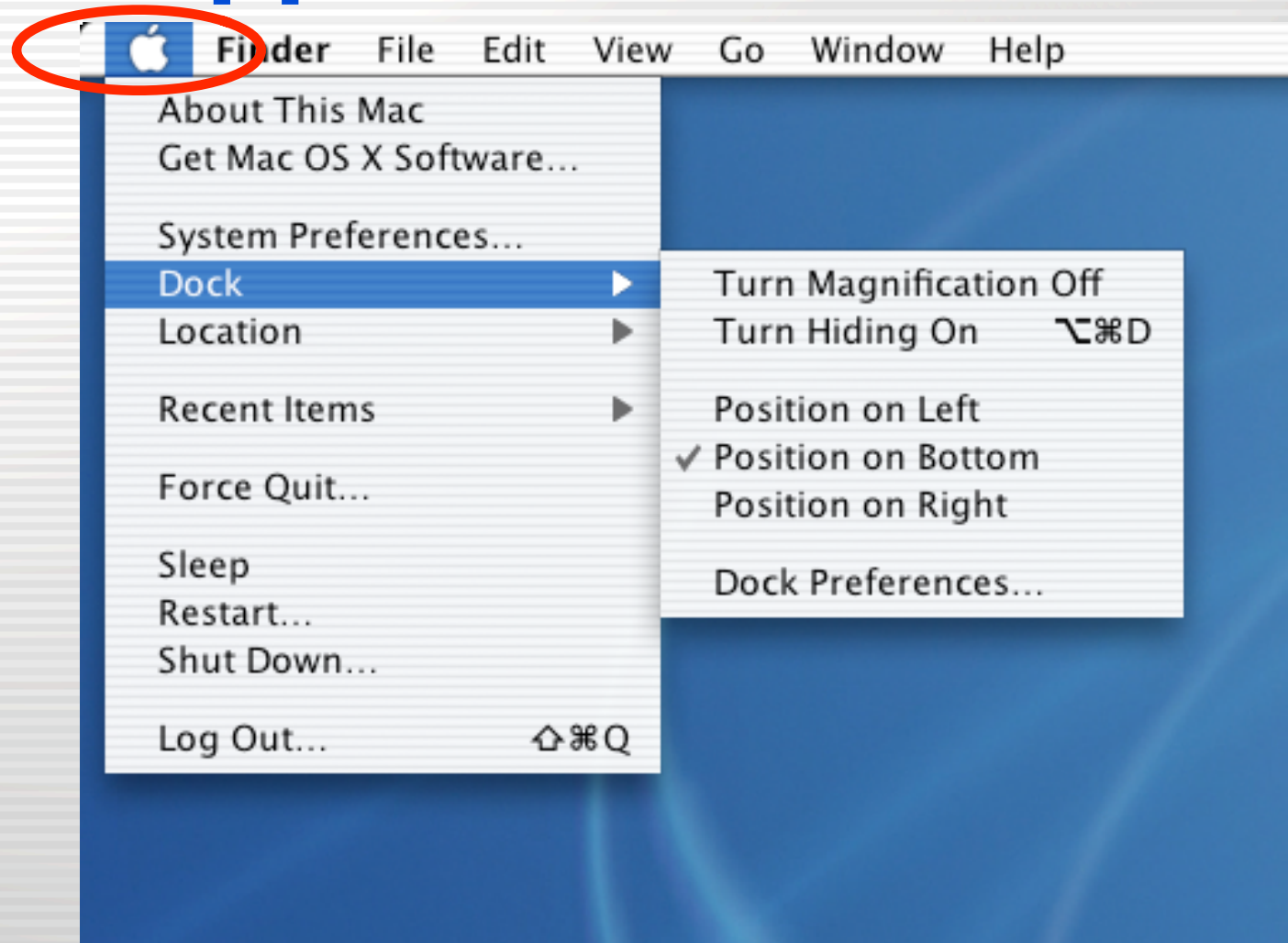
# Mac OS X Interface (Aqua)



# The Desktop

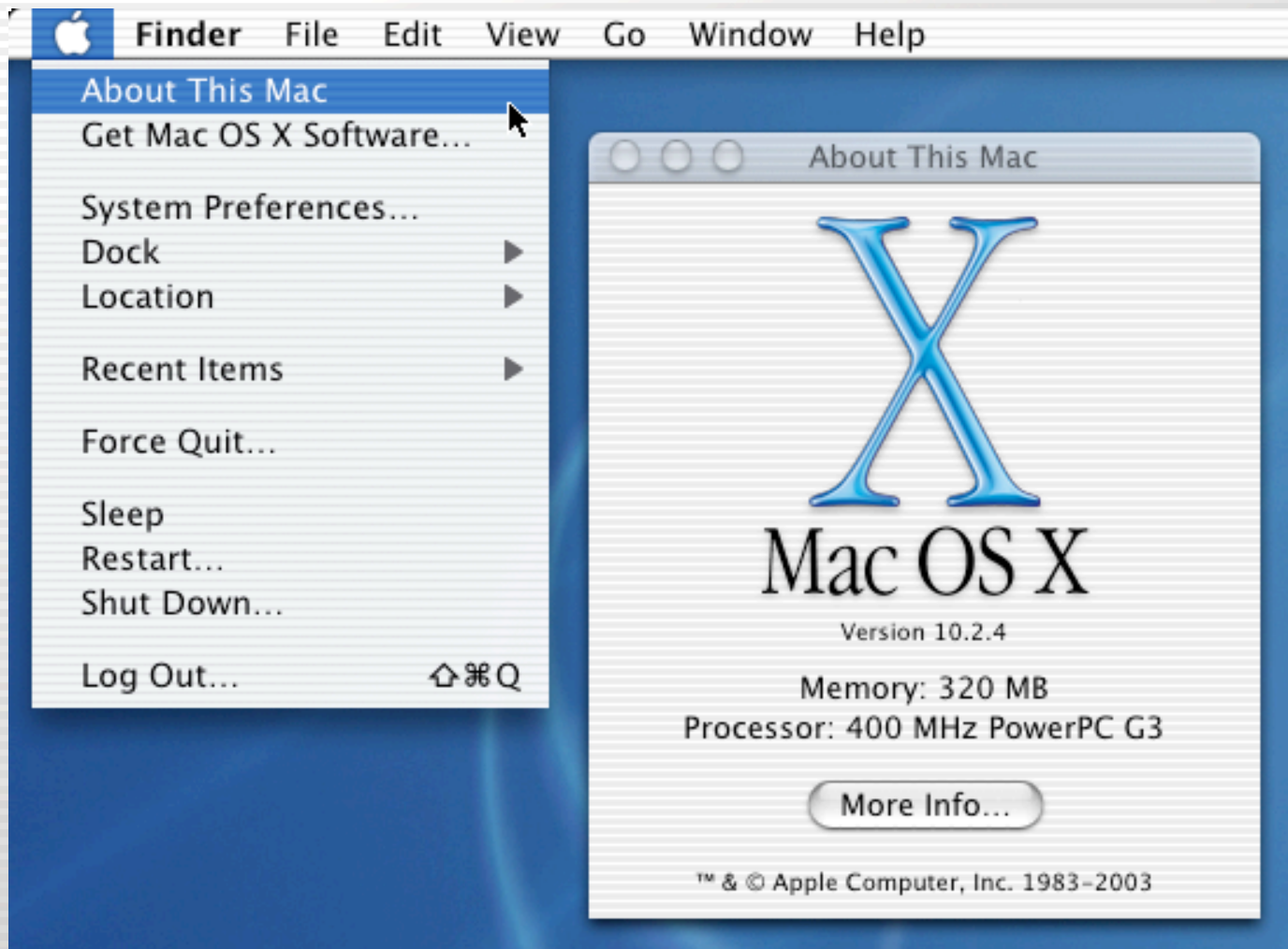


# The Apple Menu

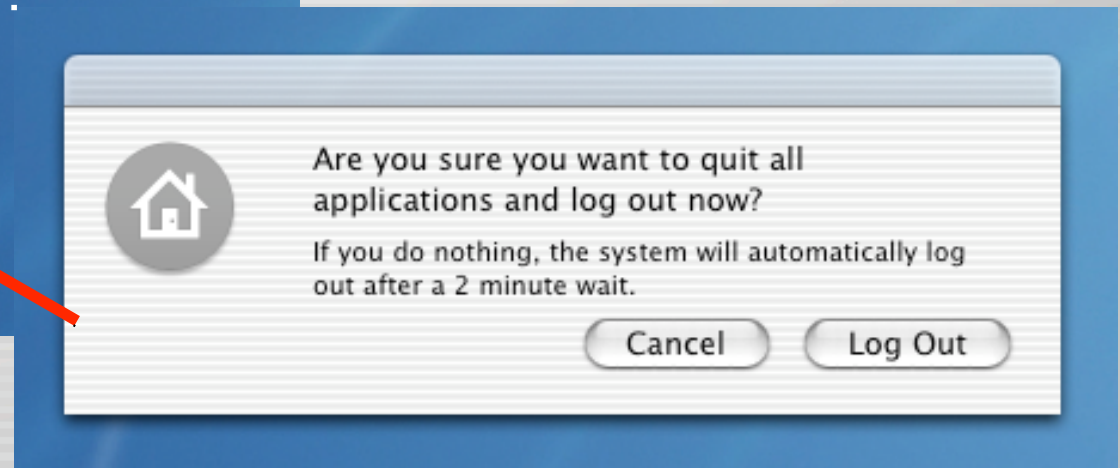
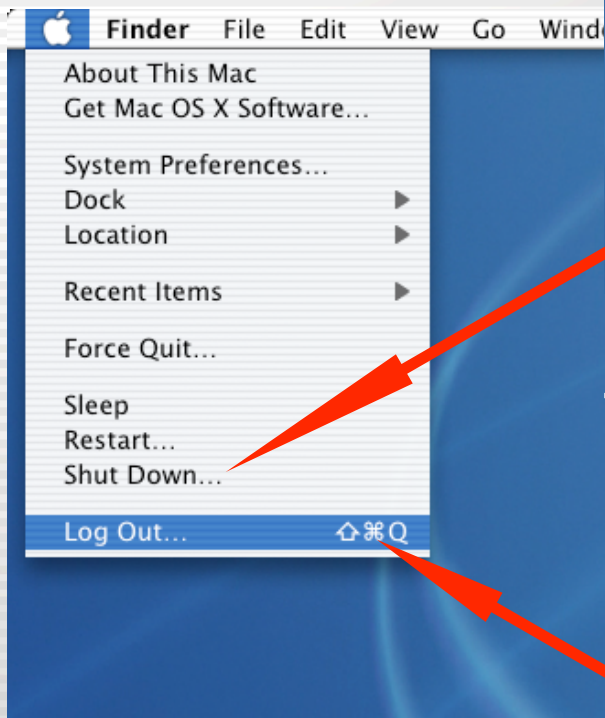




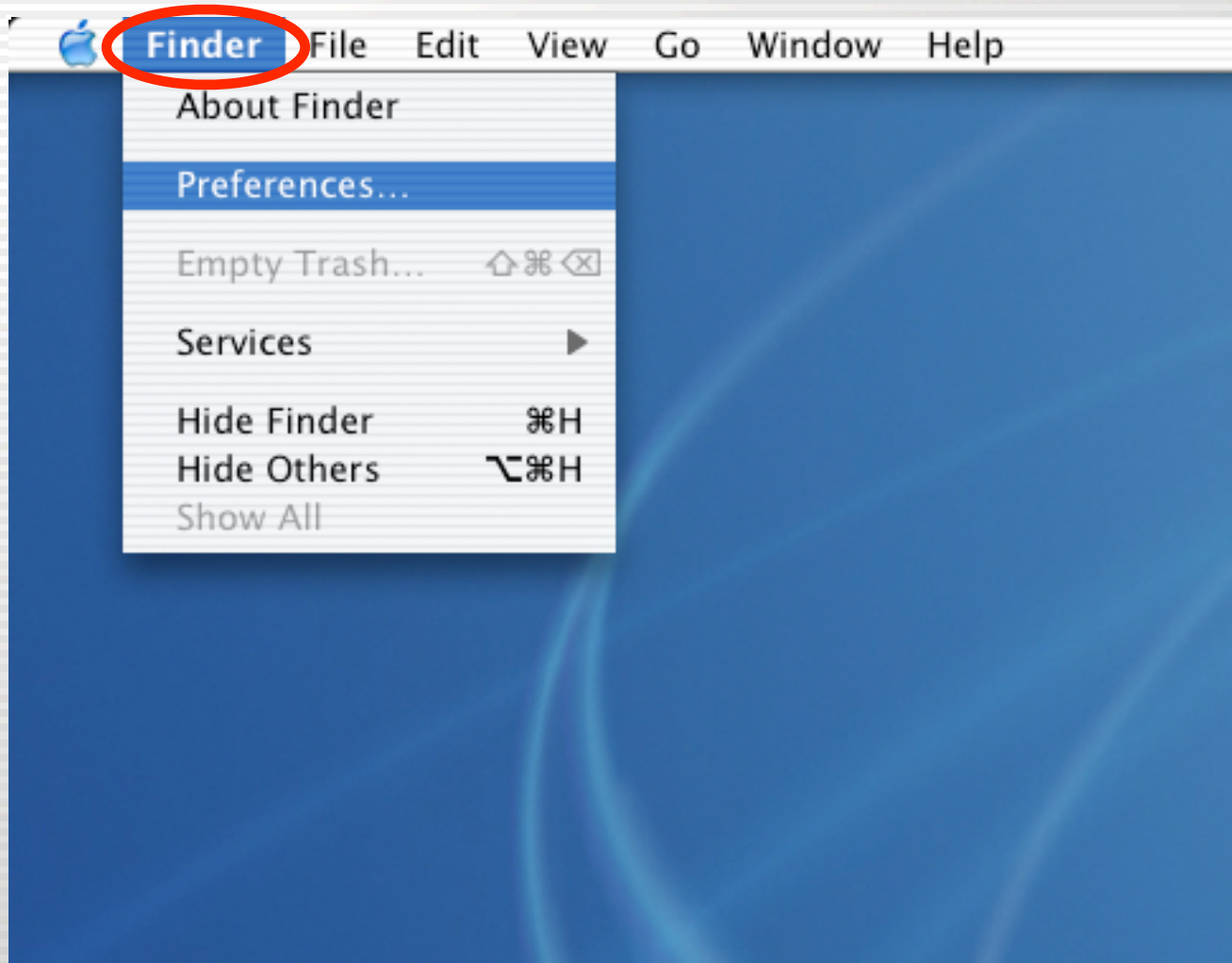
# About This Mac



# Logging Out & Shutting Down



# The Application Menu



# The Dock

The Finder Icon

Application  
Icons

The Trash Can Icon



Note: The black arrows under  
currently running applications

# The Dock

Left Side Shows  
Applications

Dock Divider

Right Side Shows  
Minimized Windows



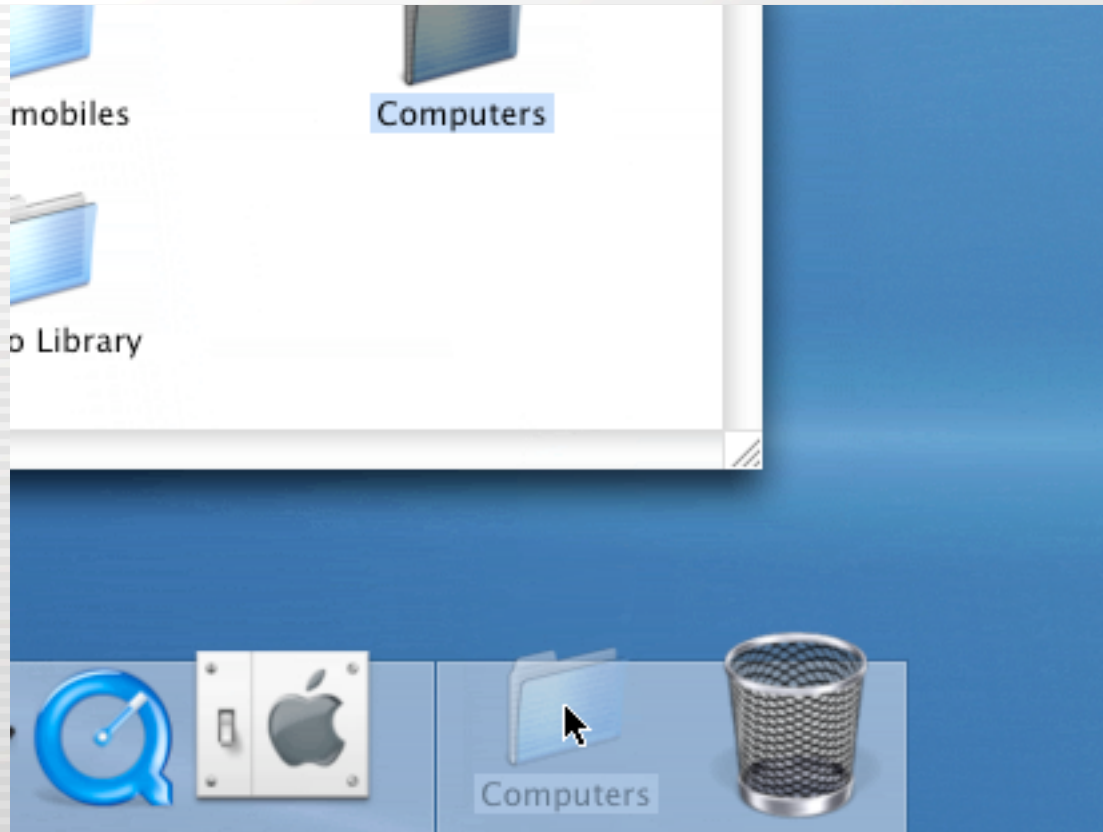
# The Dock (Application Icons)



# The Dock (Ejecting a Disk)

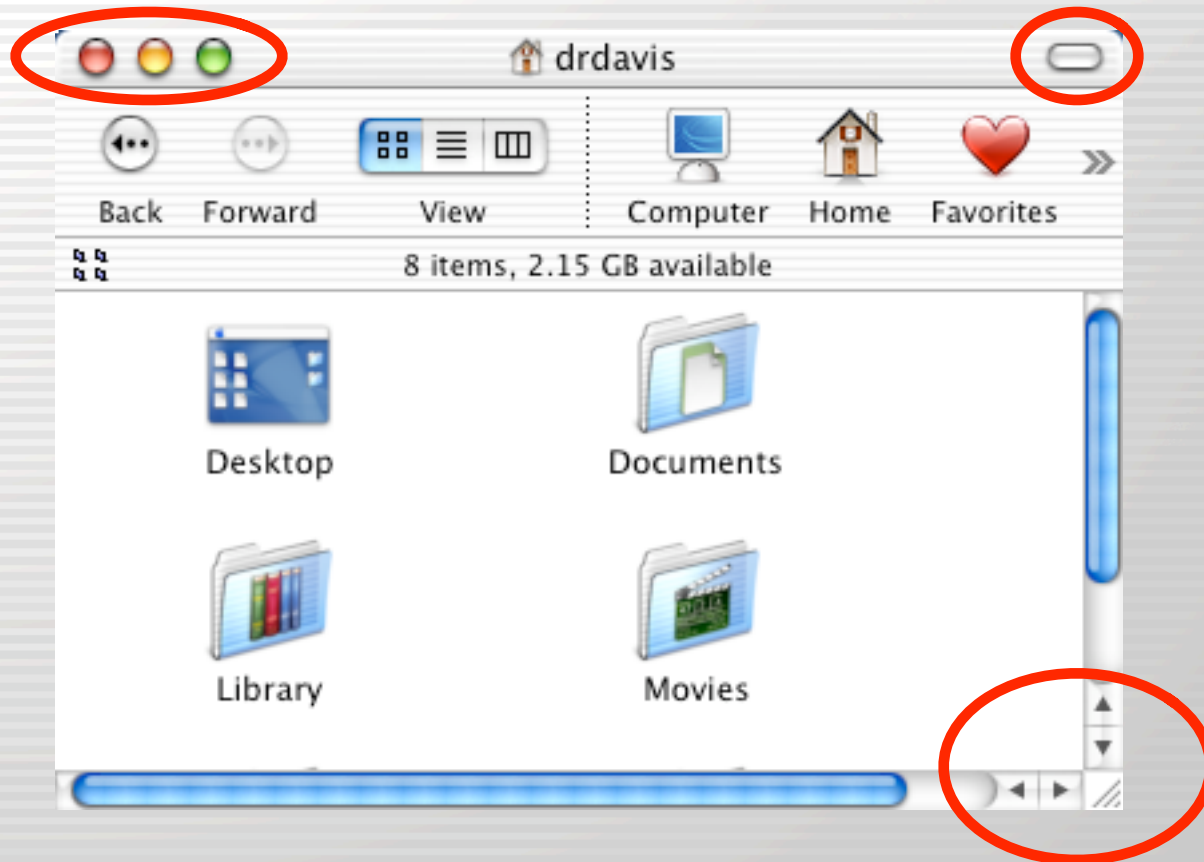


# The Dock (adding a folder)





# The Window Interface



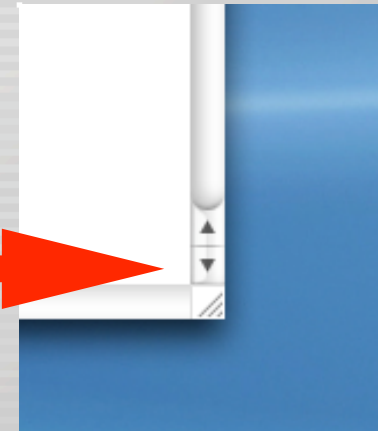
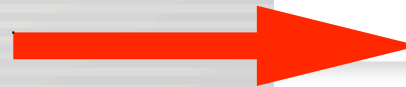
# The Window Interface

Close Minimize Maximize

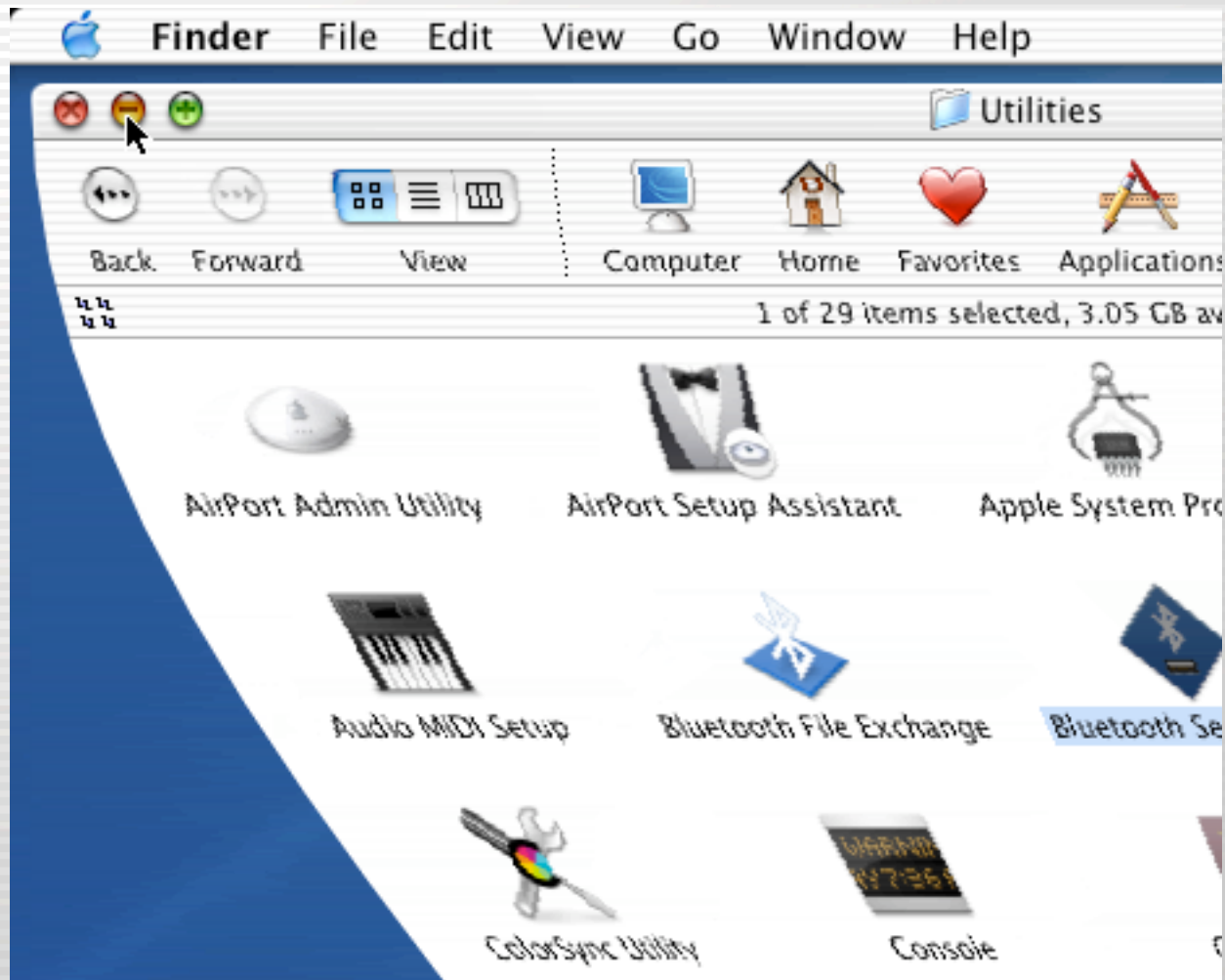


Expand or Contract  
Toolbar

Resize Window and Scroll




# Minimize



# Mouse

- **One Button Mouse**
  - Press and hold control key to “right click”
- **Two Button Mouse Works with Mac OS X**
- **Scroll Wheel Works with Mac OS X**
- **Any USB Mouse will do**
  - Some like Logitech include a System Preference Item to customize the mouse

# Control Key held and Mouse



The screenshot shows a Safari browser window with the Apple website. A context menu is open over a server rack image, listing options: "Open Link in New Window", "Download Link to Disk", "Copy Link to Clipboard", "Add Link to Bookmarks", "Open Image in New Window", "Download Image To Disk", and "Copy Image to Clipboard". The website content includes the headline "We mean business." and two server rack sections: "The new Xserve RAID" and "The new Xserve".

**We mean business.**

**The new Xserve RAID**  
Rack-optimized, high-density 1U enclosure  
Up to dual 1.33GHz G4 Processors  
Up to 720GB storage capacity  
FireWire 800 and Dual Gigabit Ethernet  
Optional 2Gb Fibre Channel  
Mac OS X Server — unlimited clients  
Starting at just \$2799

**Xserve RAID**  
Rack-optimized 3U enclosure  
Massive 2.52TB storage capacity  
High-availability and high-performance  
Dual 2Gb Fibre Channel ports  
Full redundancy for continuous uptime  
Powerful remote monitoring  
Starting at just \$5999

Hot News Headlines | Close Up: "A Day in the Life of Africa" Photographer Peter Turnley.

**Safari Public Beta**  
Download the new version.

**The new iMac**  
17-inch  
1GHz  
iLife  
\$1799

**The new Power Mac**  
Faster, more expandable and starting at just \$1499.

**The new PowerBooks**  
Less is more. More is more.

# Mac OS X User Interface

## Demonstration

# Using the Finder

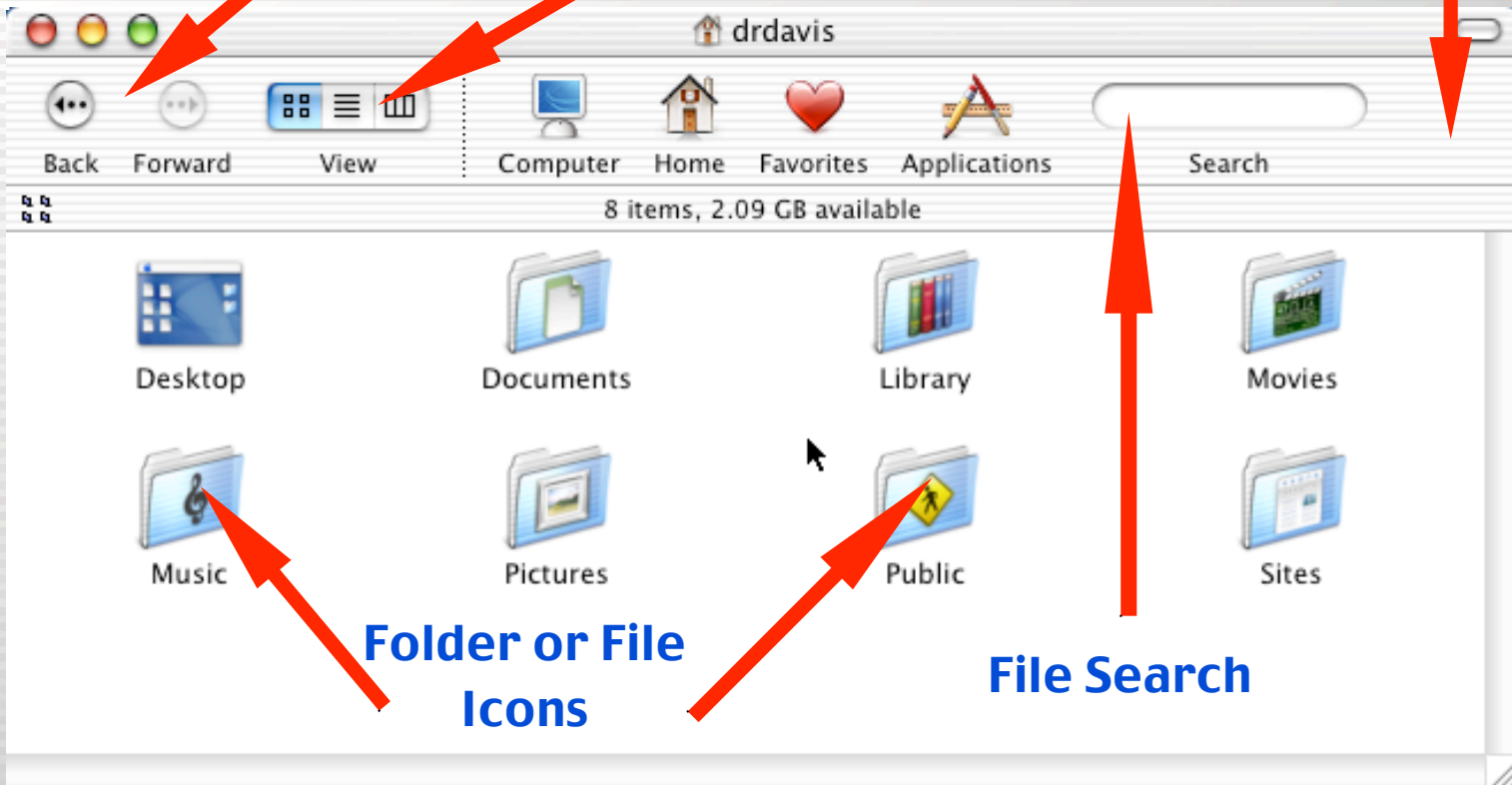


# The Finder Window

Navigation Buttons

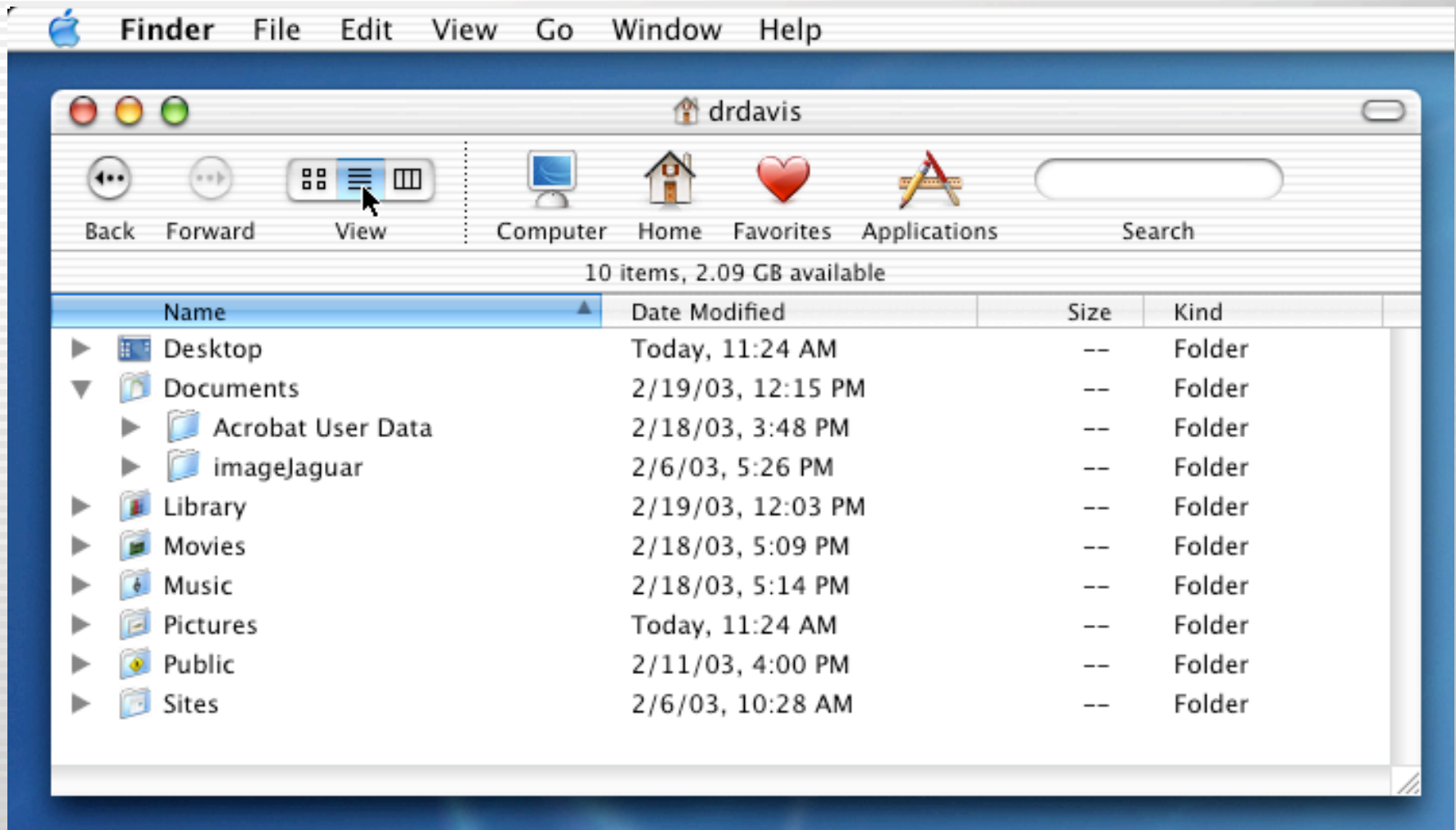
View Button  
(Icon View)

Toolbar

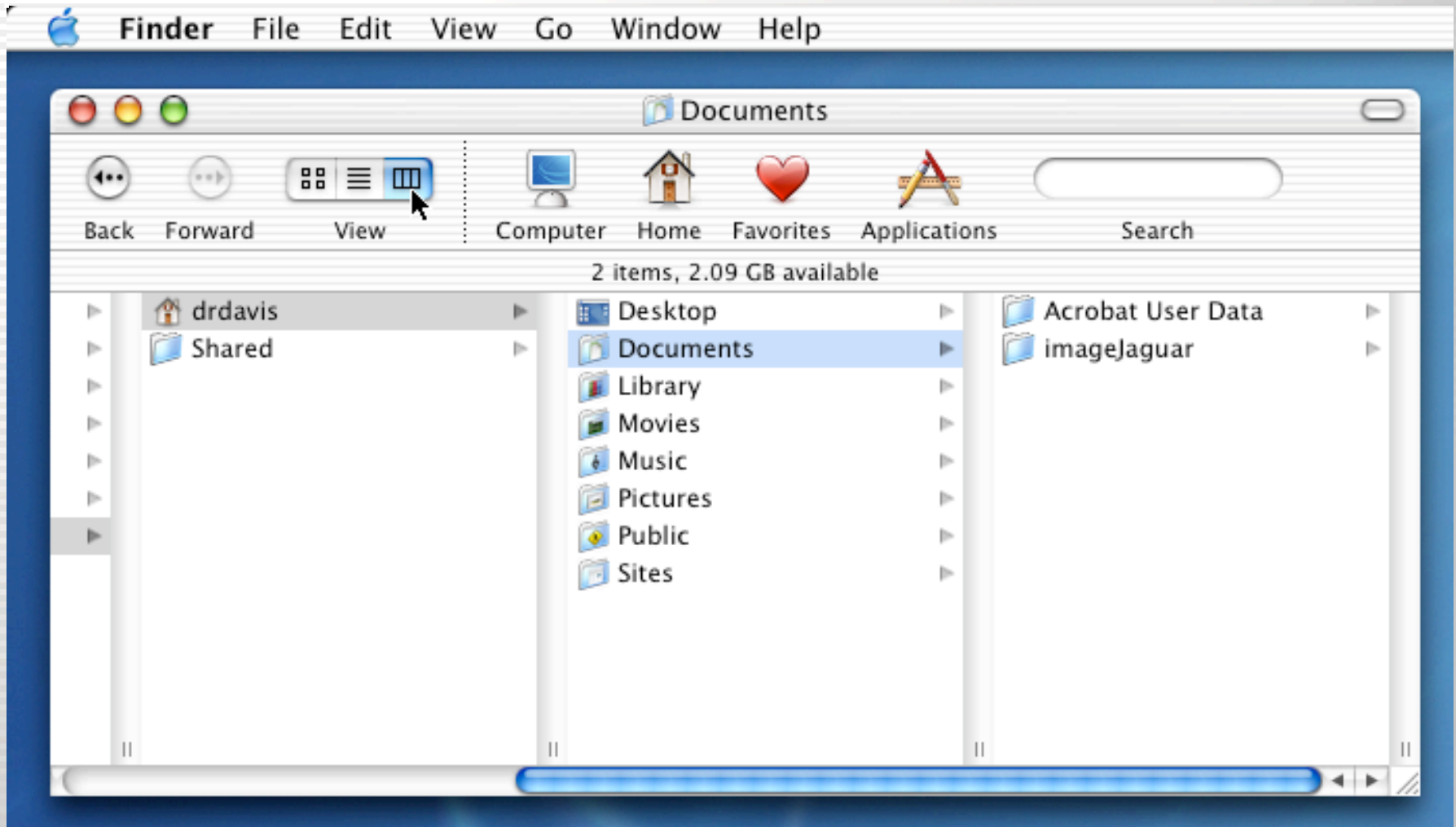




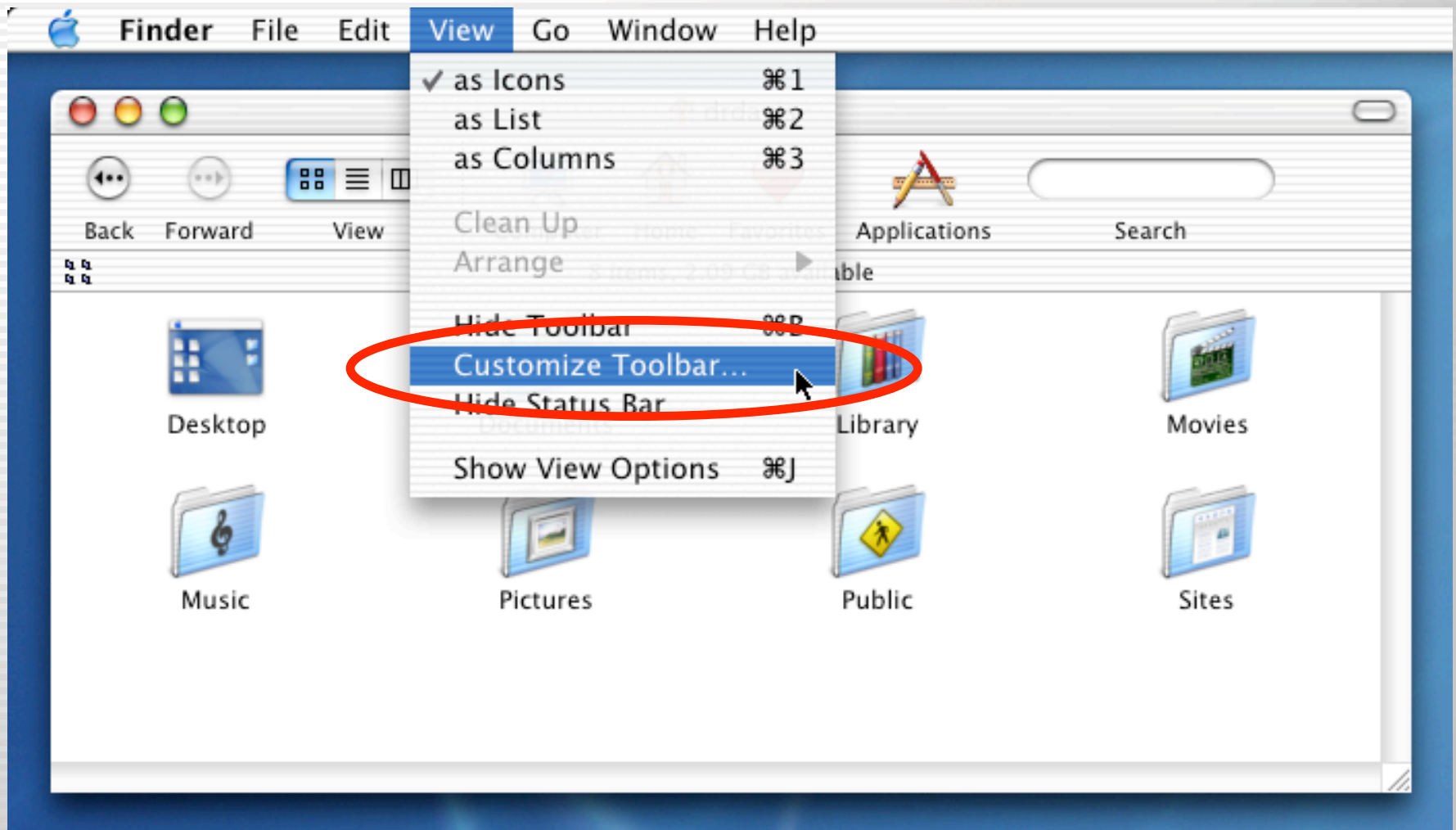
# Finder: List View



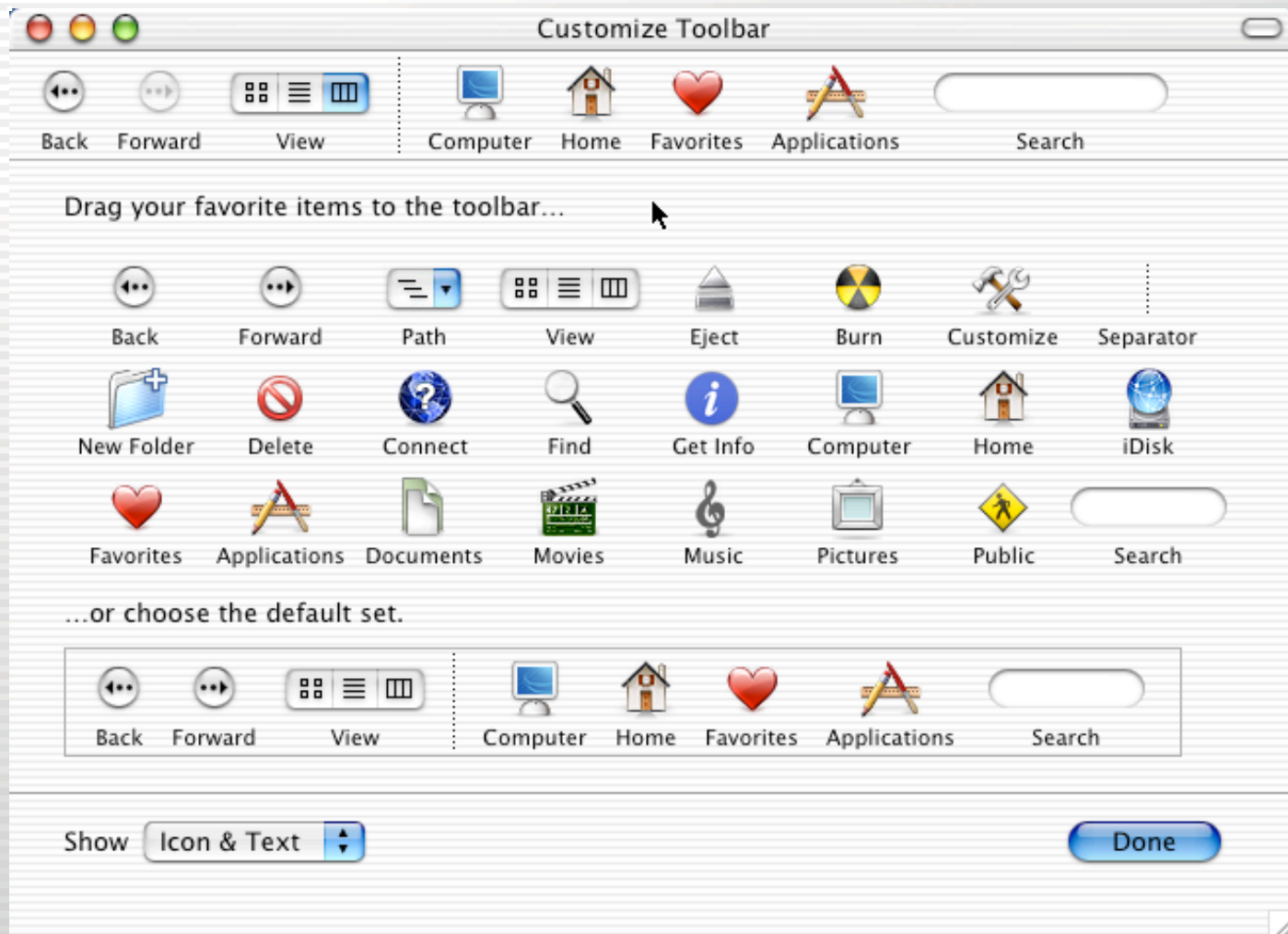
# Finder: Column View



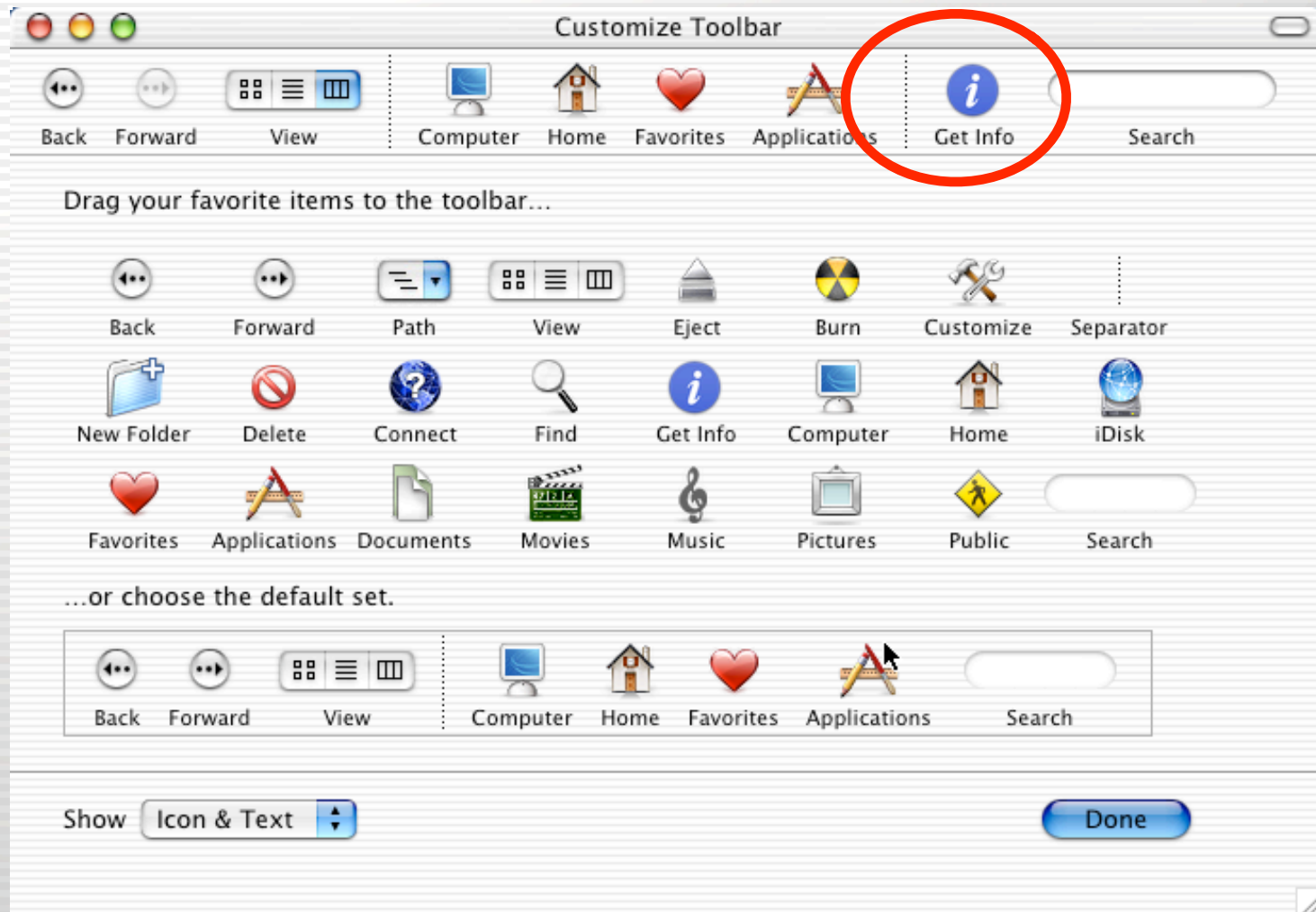
# Customizing Finder Toolbar



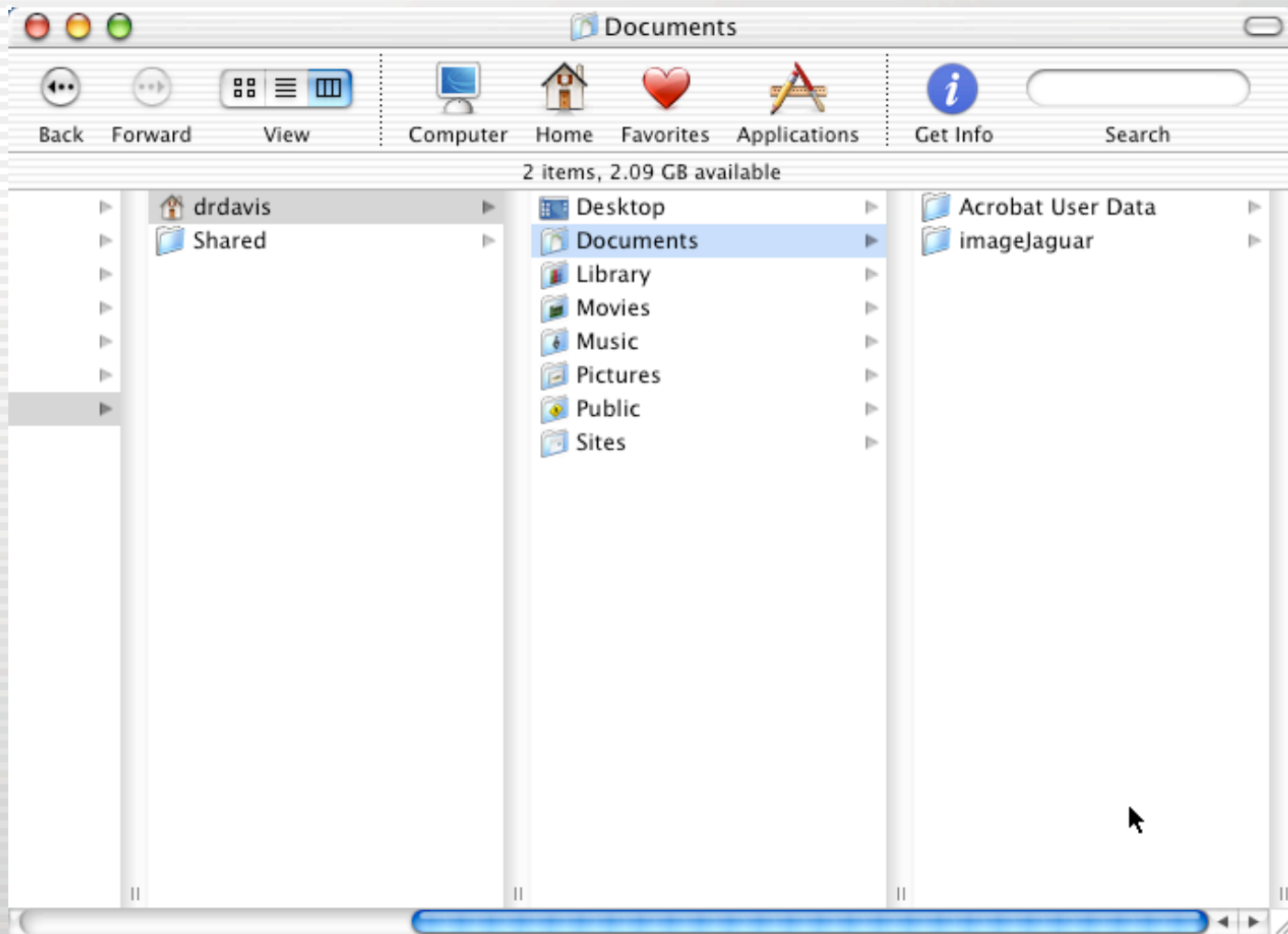
# Finder Customization



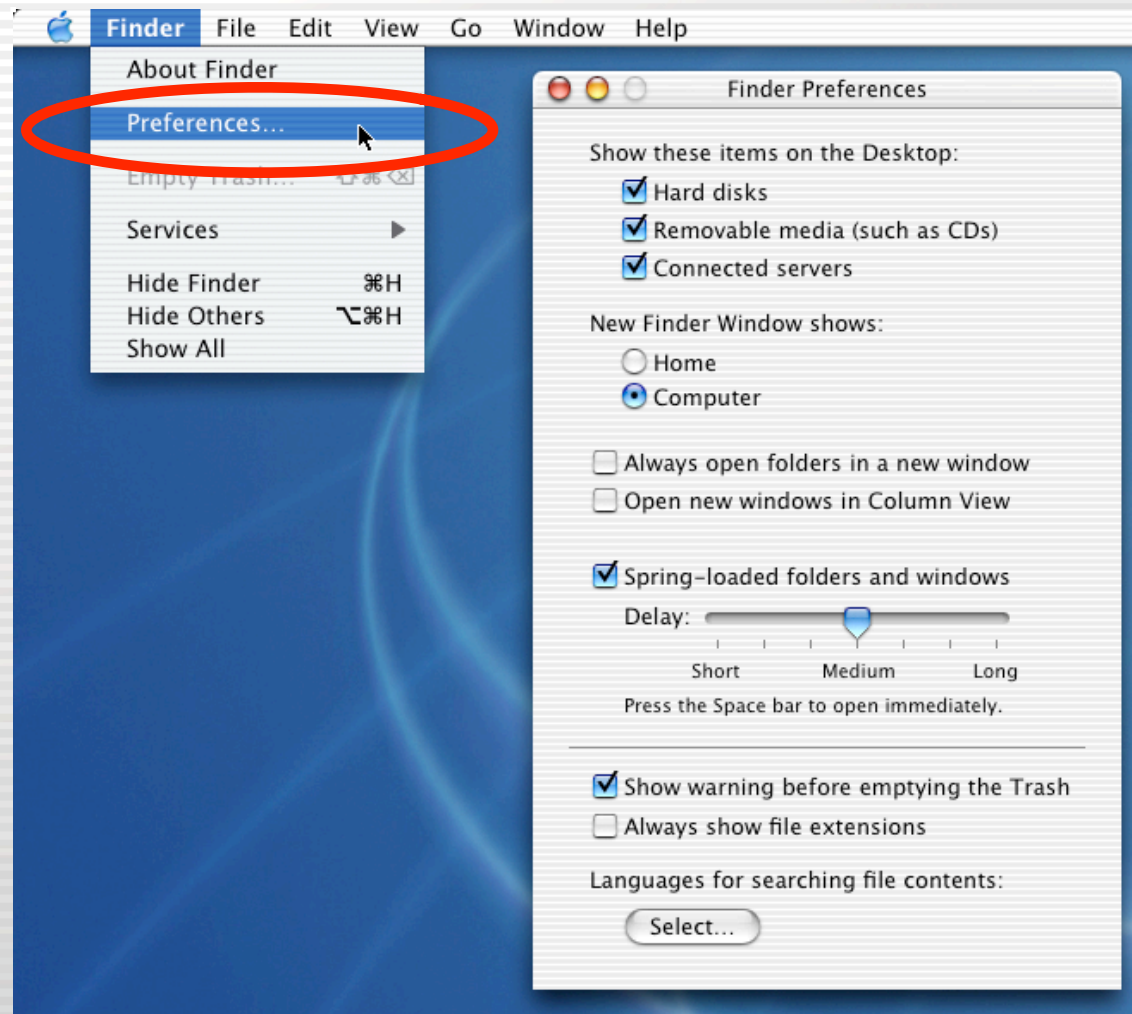
# Finder Customization (Add)



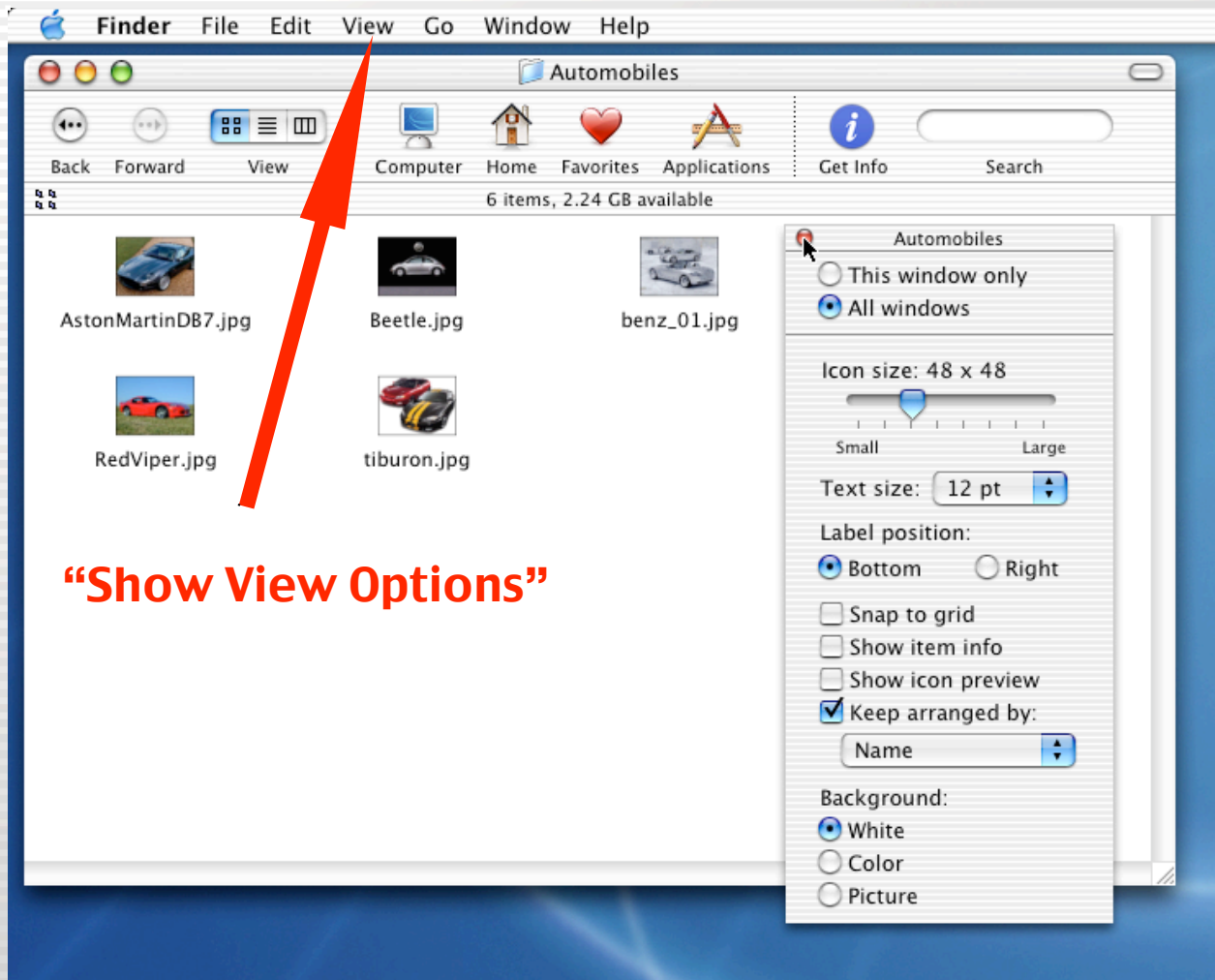
# Finder Customization (Done)



# Finder Preferences



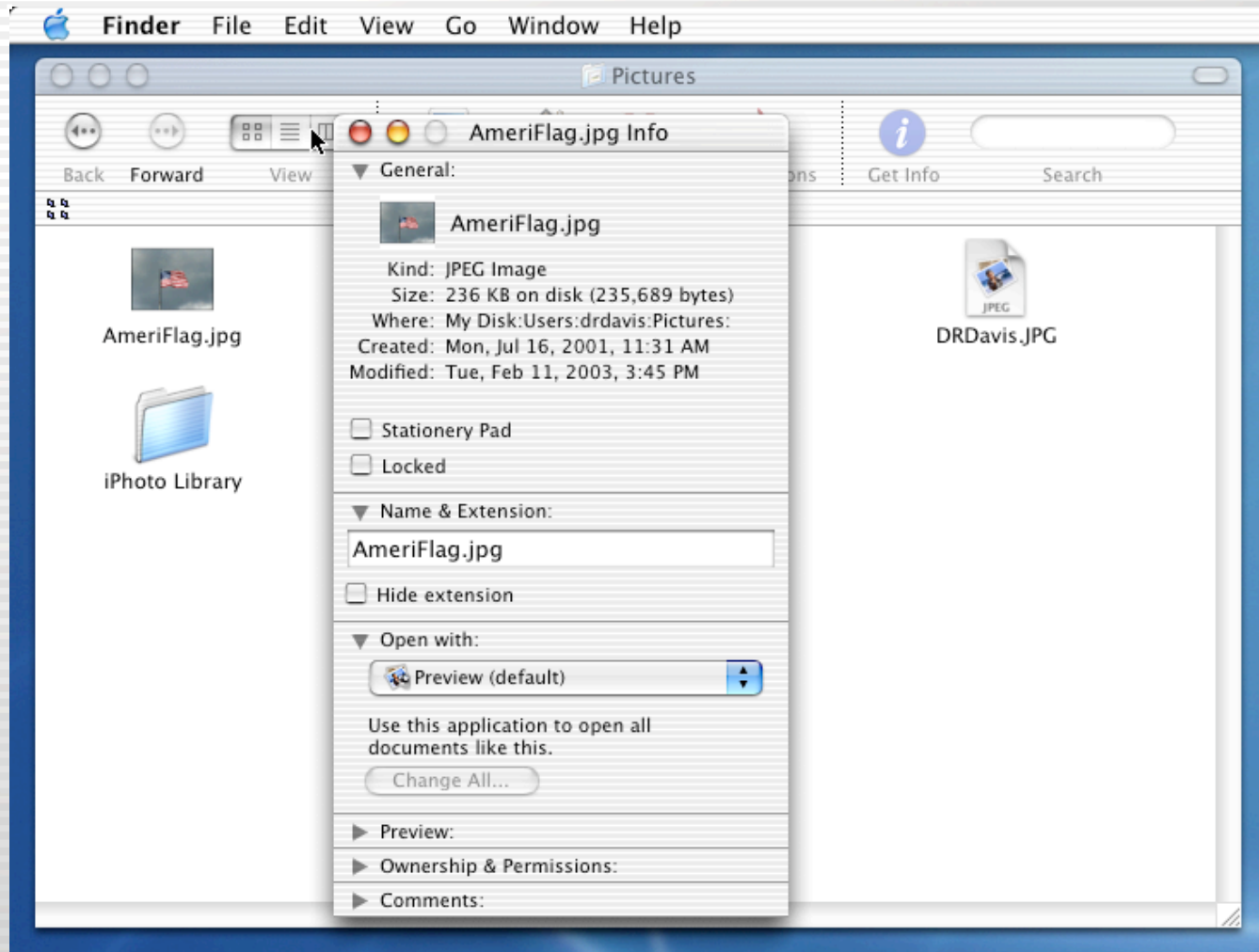
# Customizing Finder Views



**“Show View Options”**



# Finder: Get Info



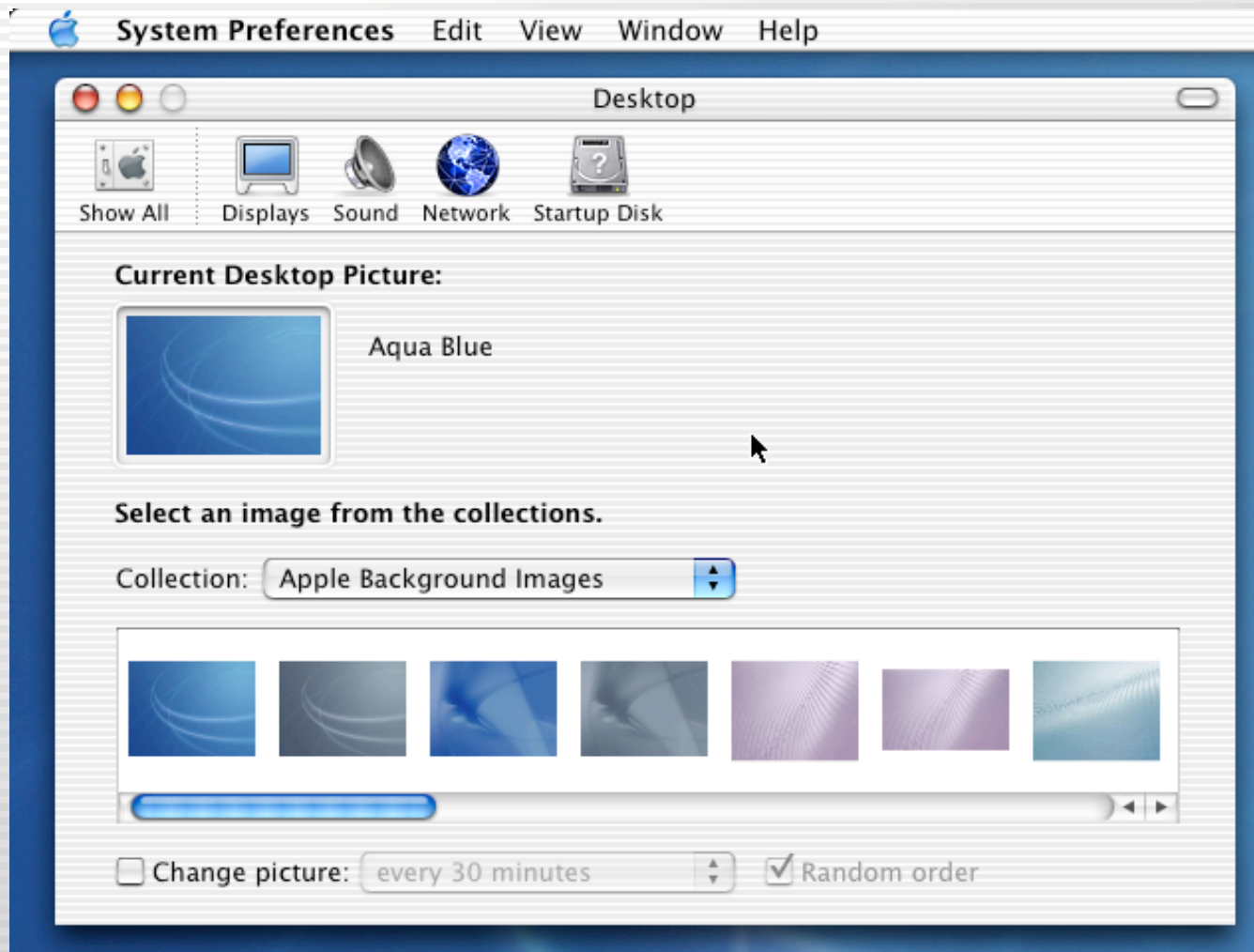
# Spring-Loaded Folders



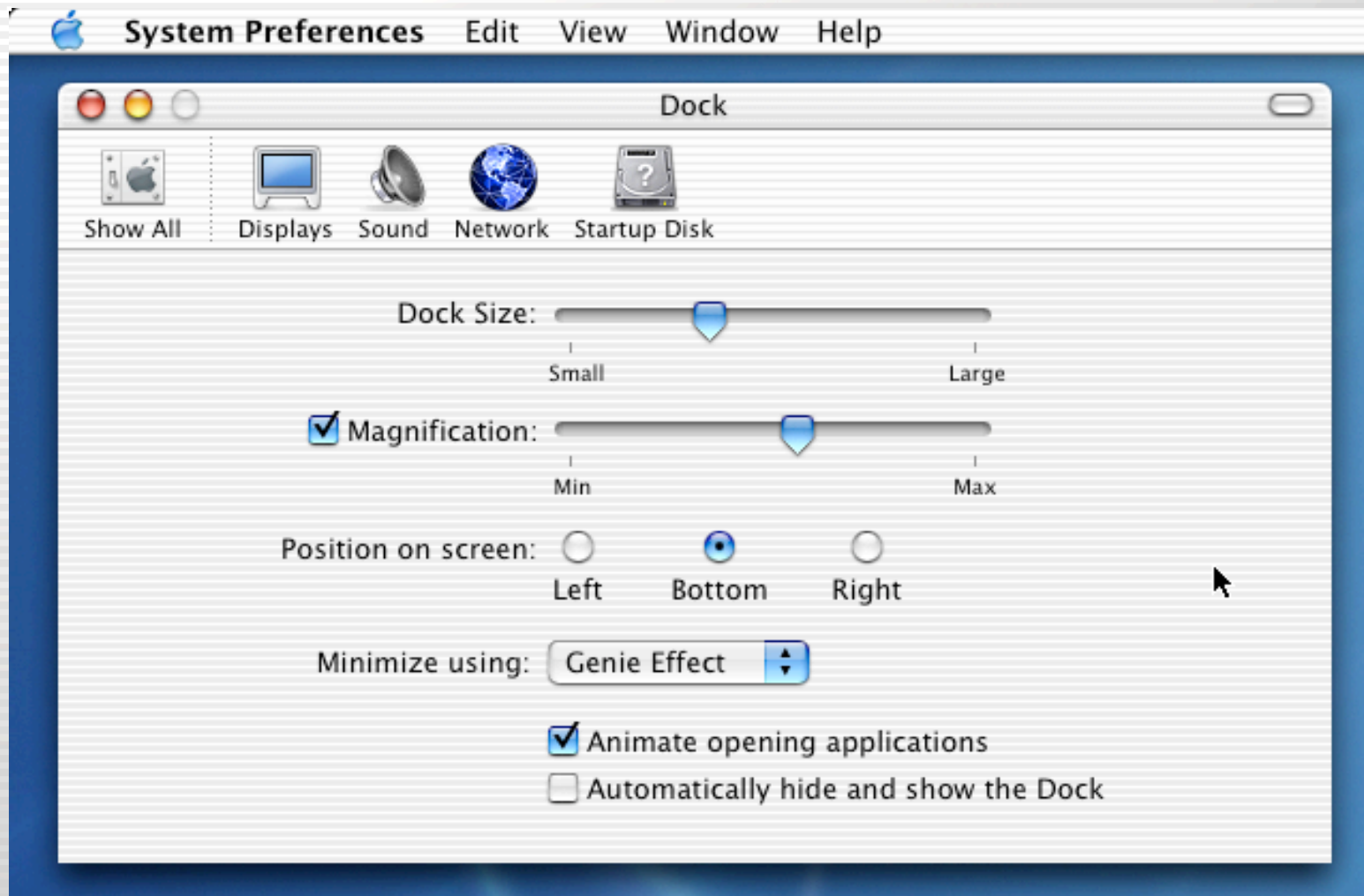
# System Preferences



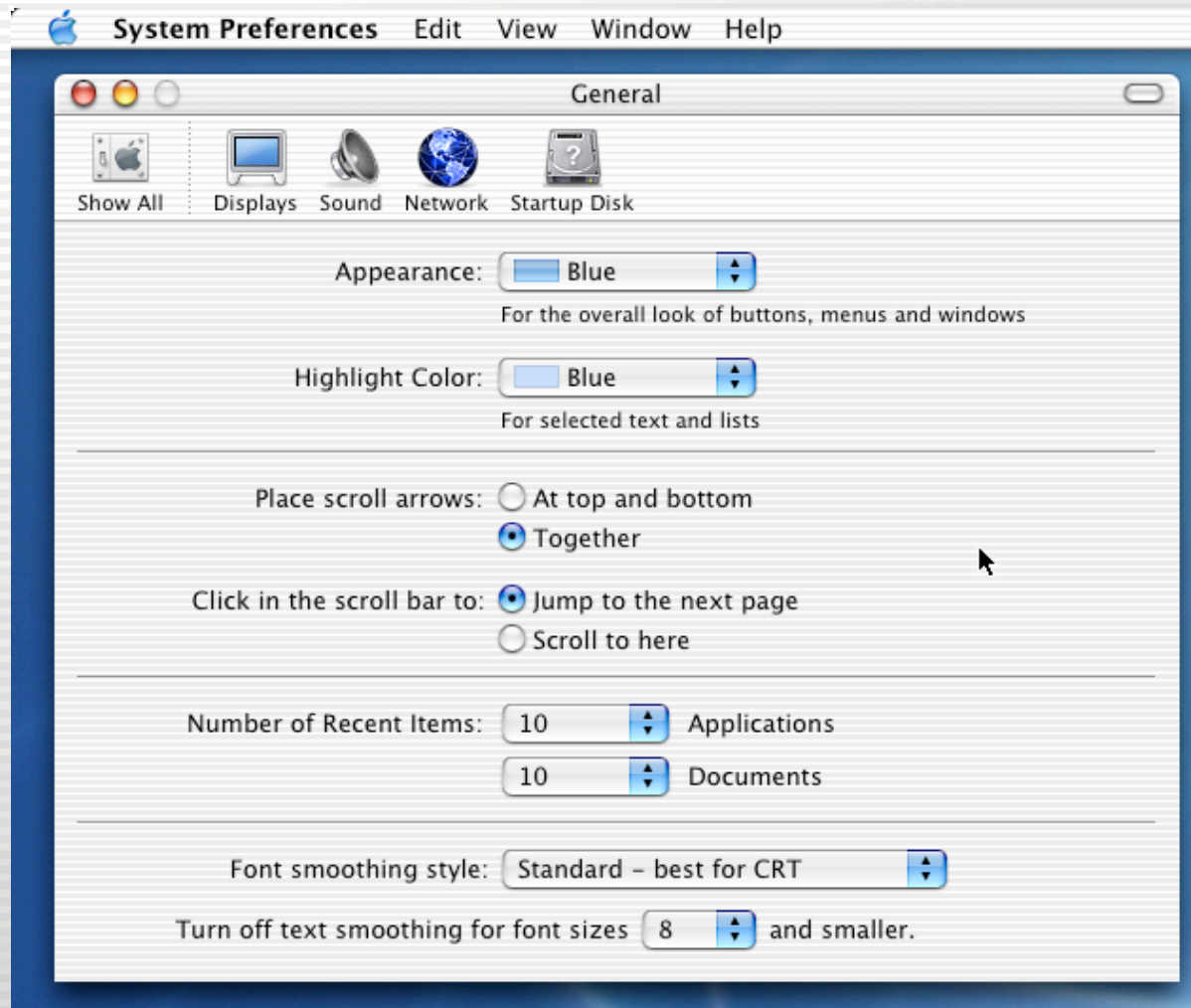
# System Prefs: Desktop



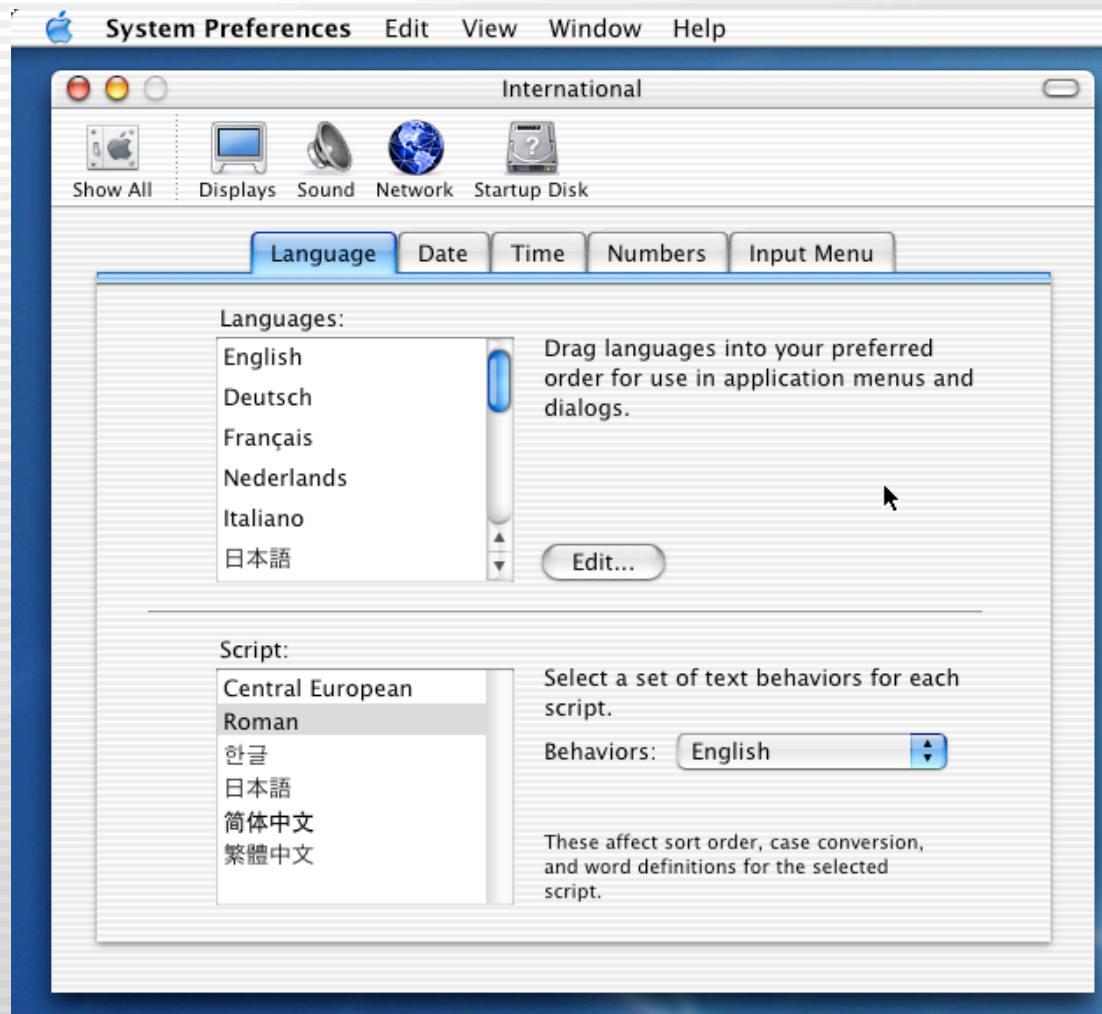
# System Prefs: Dock



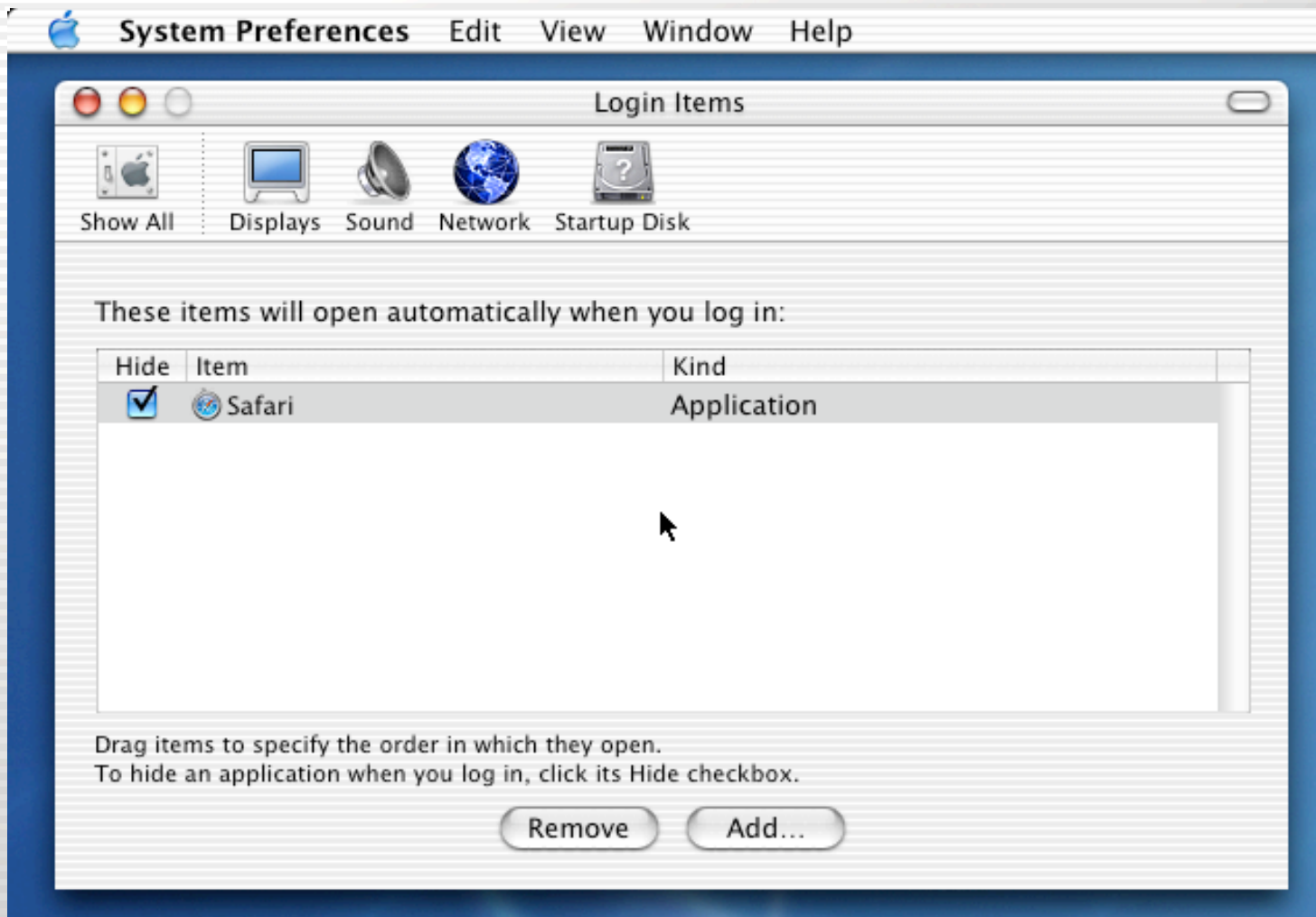
# System Prefs: General



# System Prefs: International



# System Prefs: Login Items

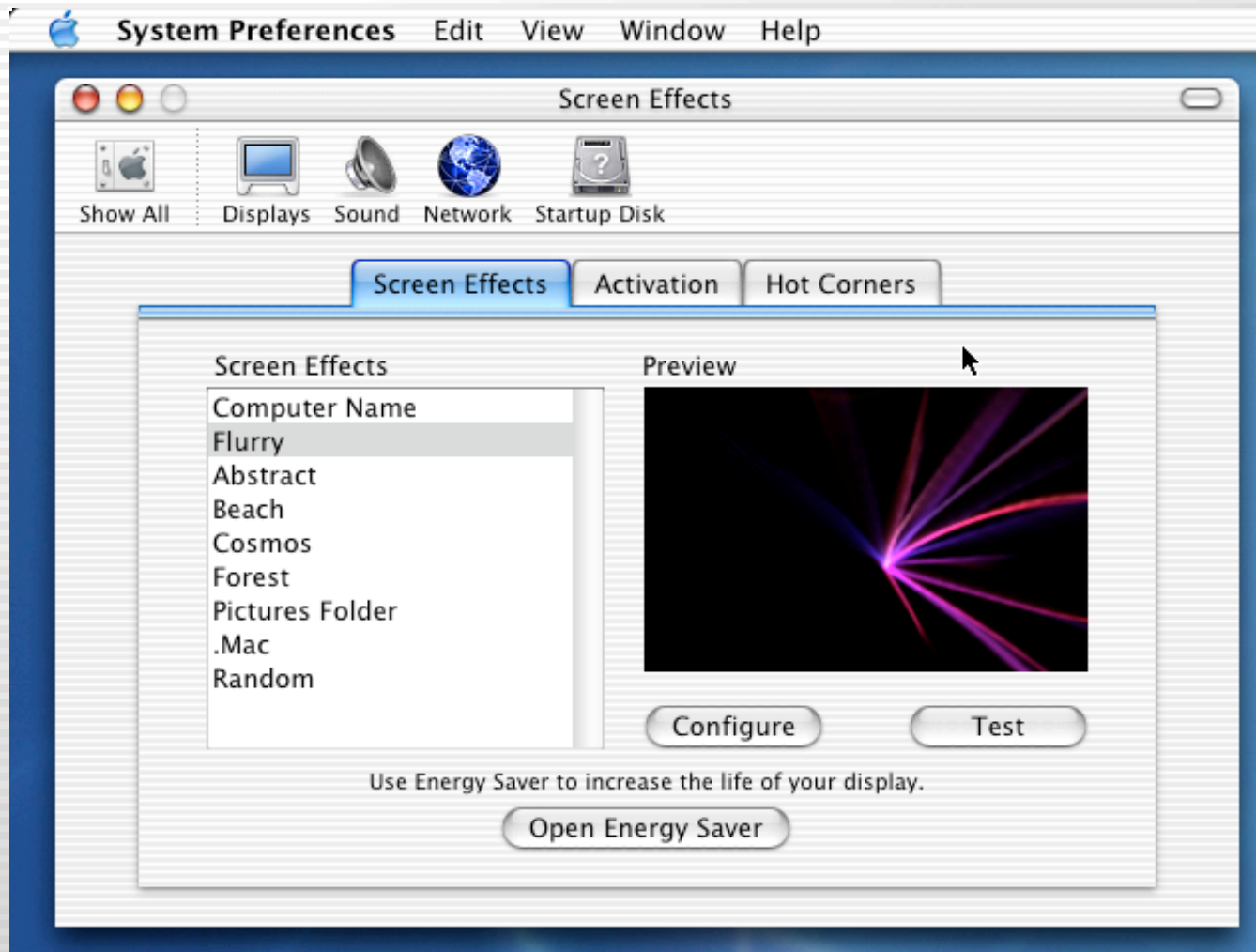




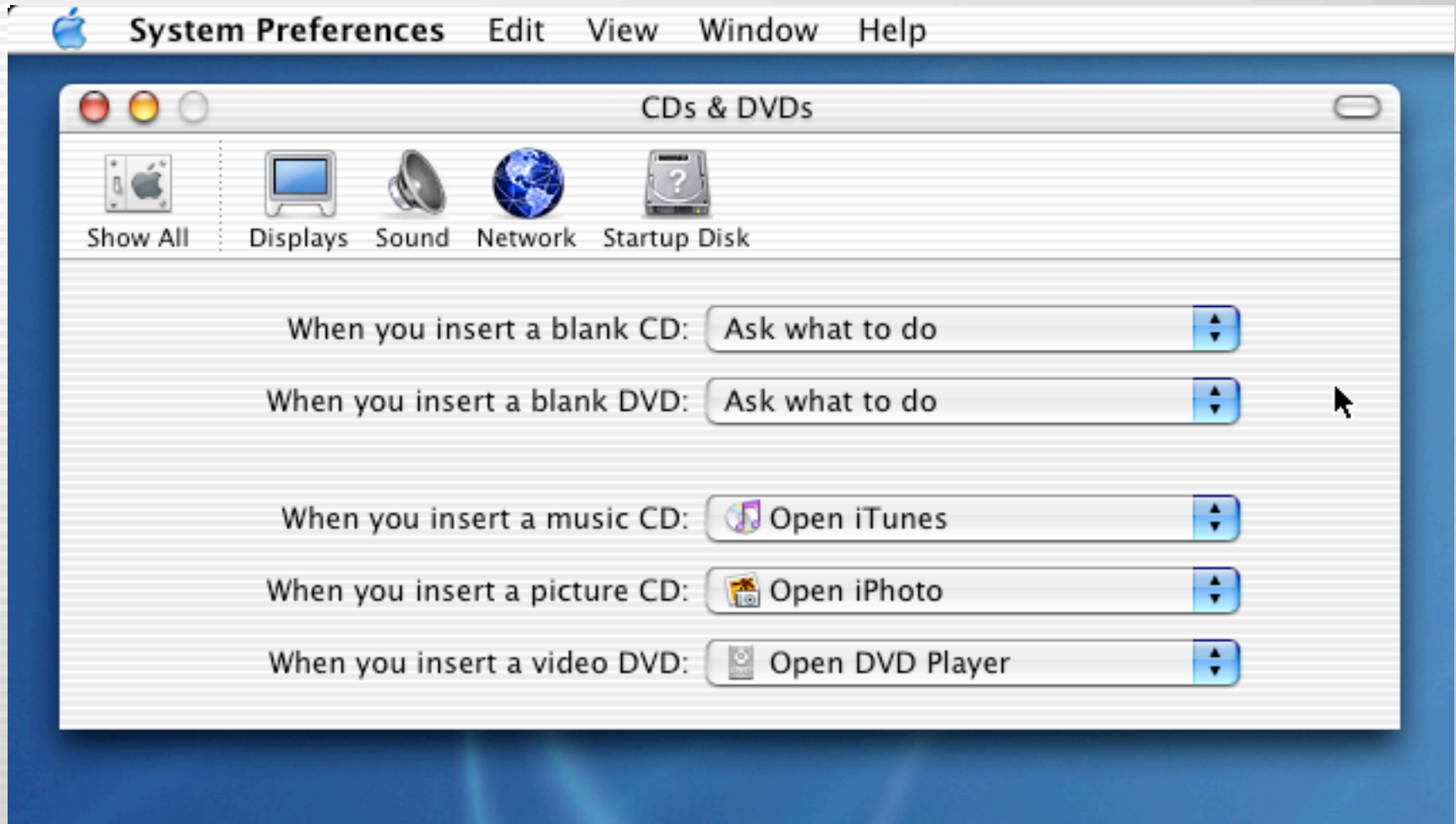
# System Prefs: My Account



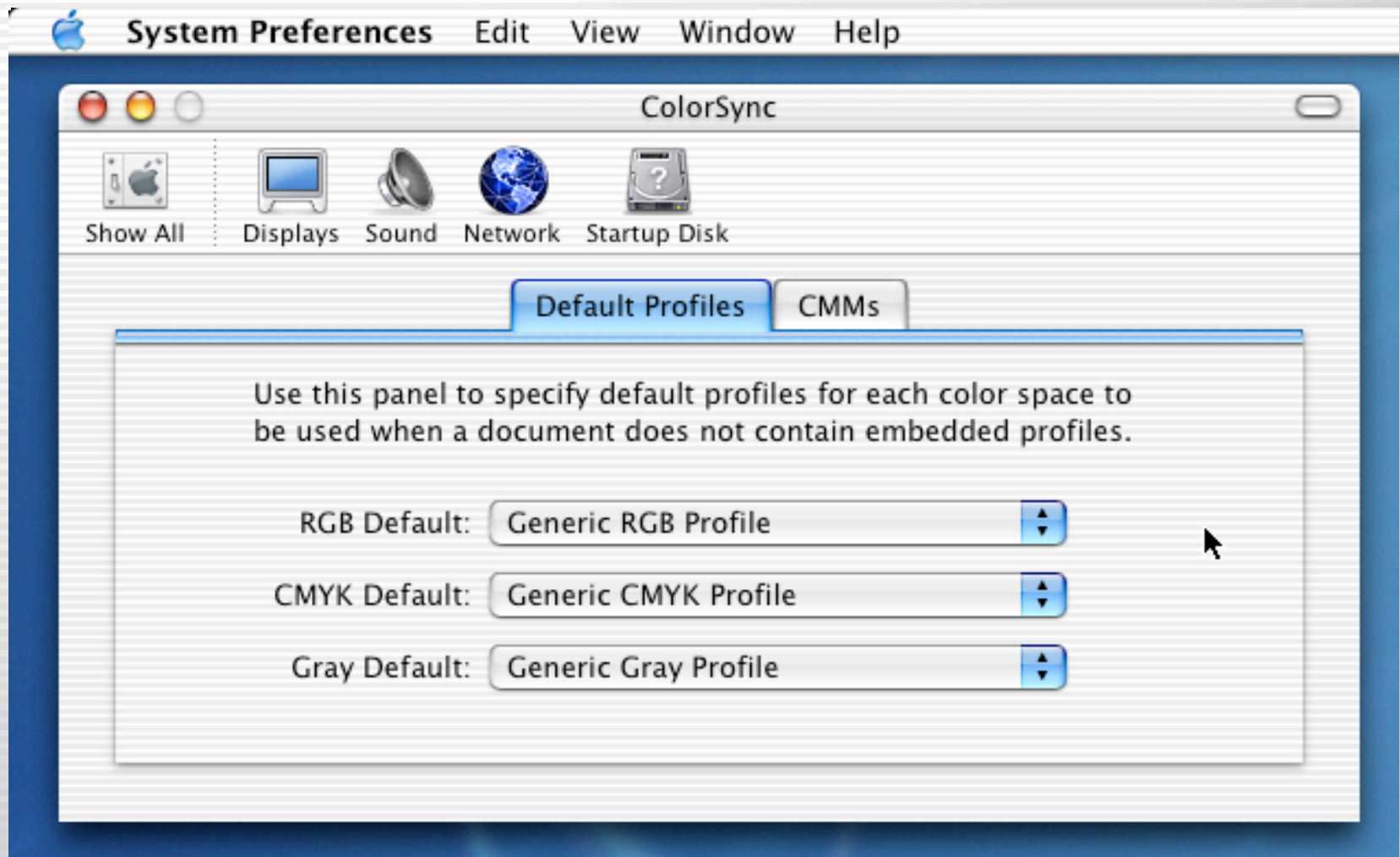
# System Prefs: Screen Effects



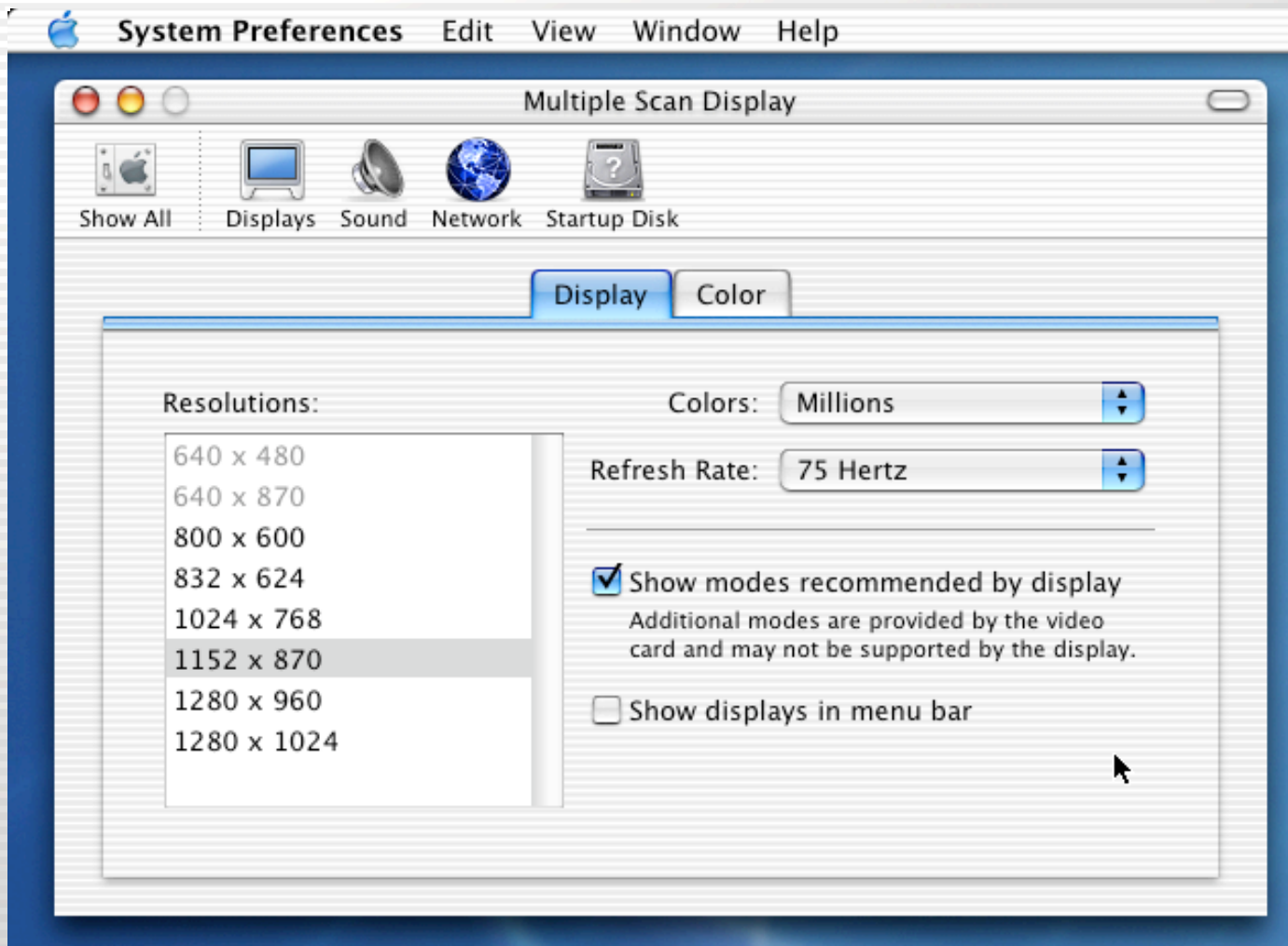
# System Prefs: CDs & DVDs



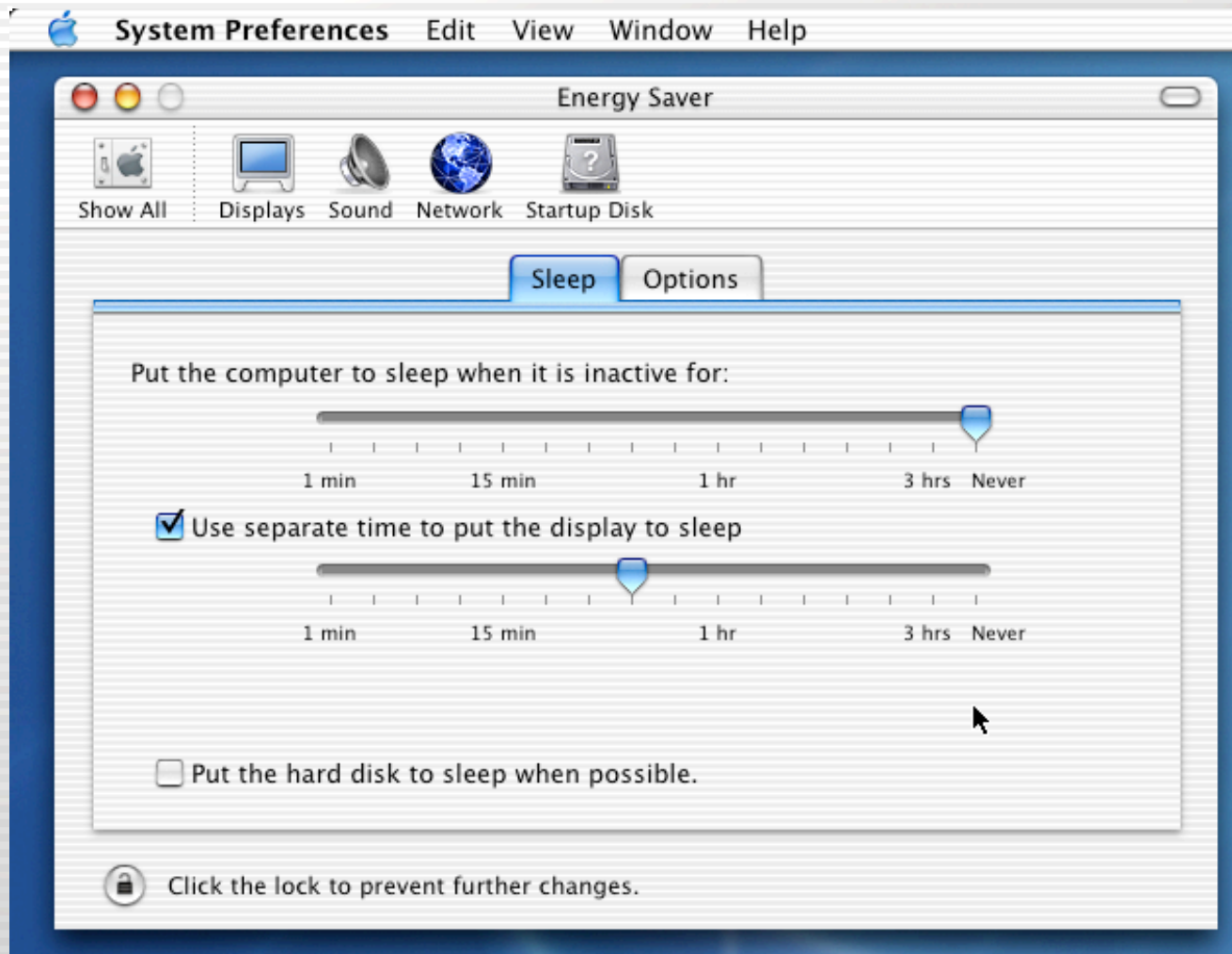
# System Prefs: ColorSync



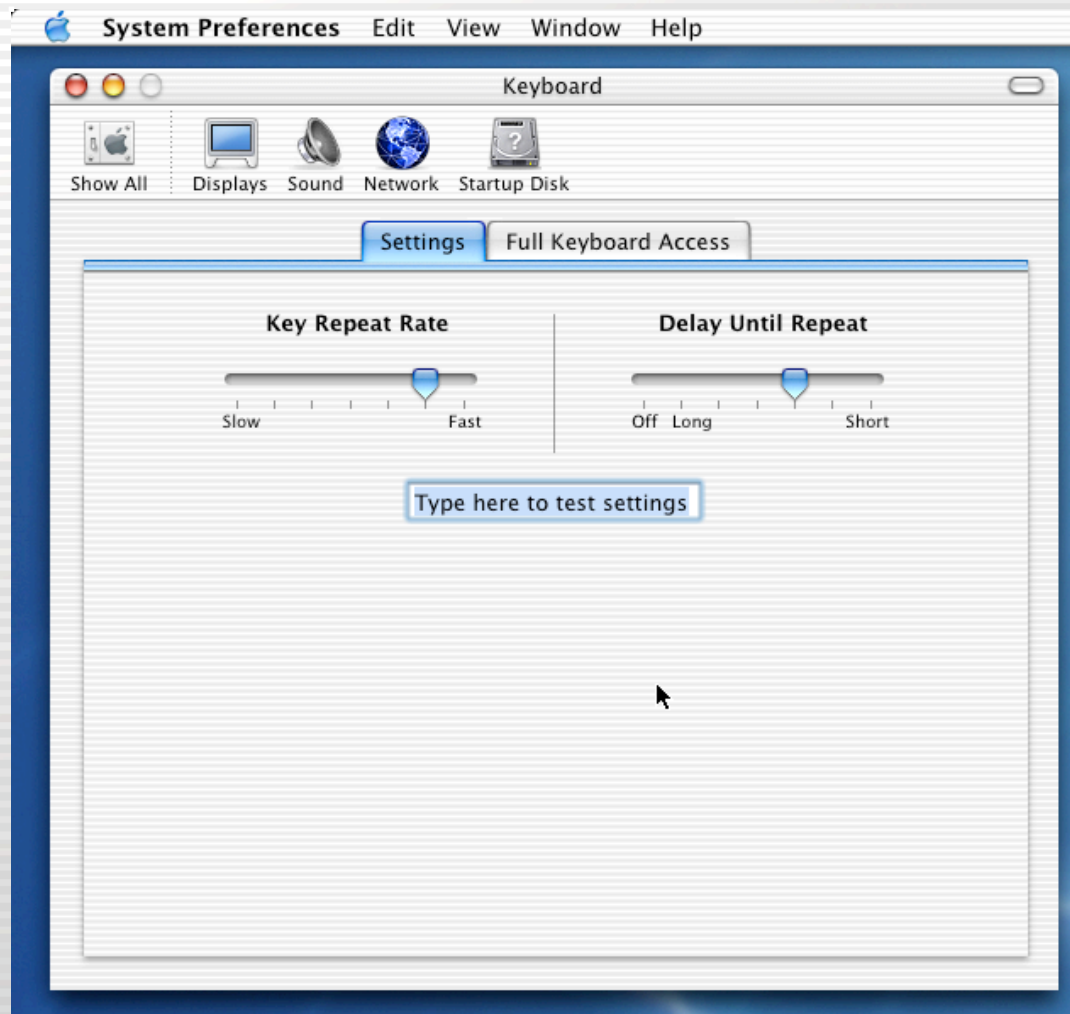
# System Prefs: Displays



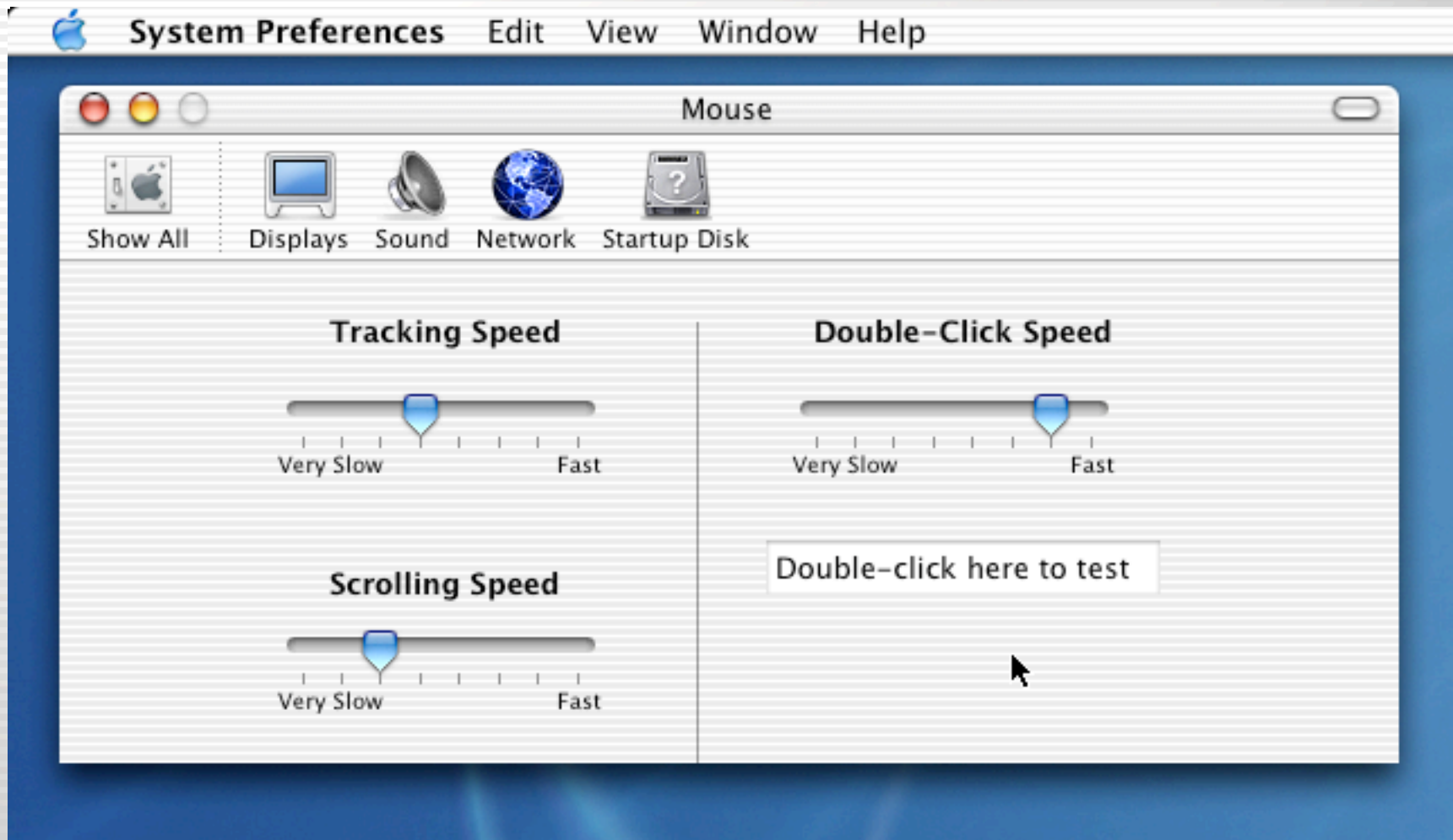
# System Prefs: Energy Saver



# System Prefs: Keyboard

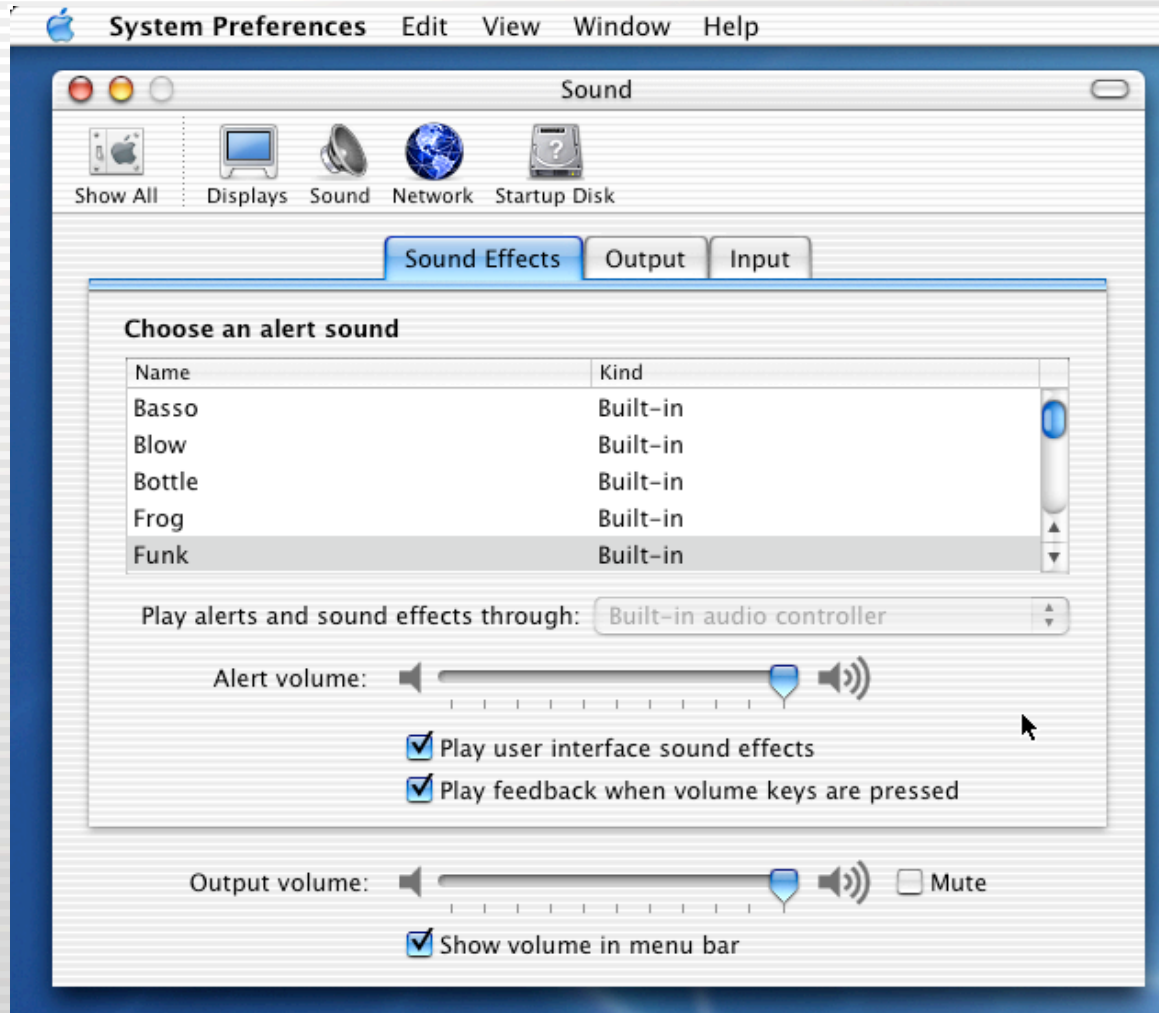


# System Prefs: Mouse

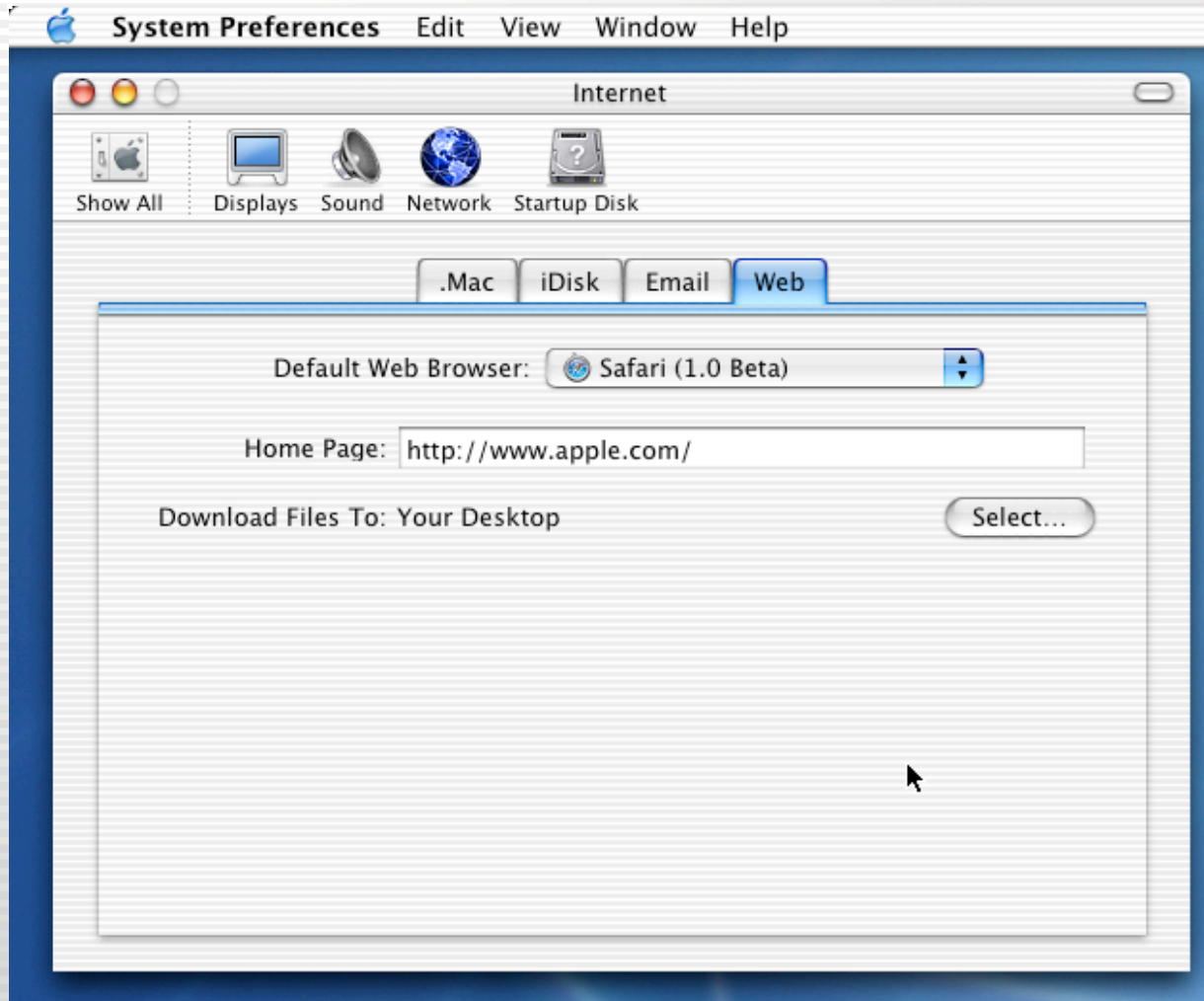




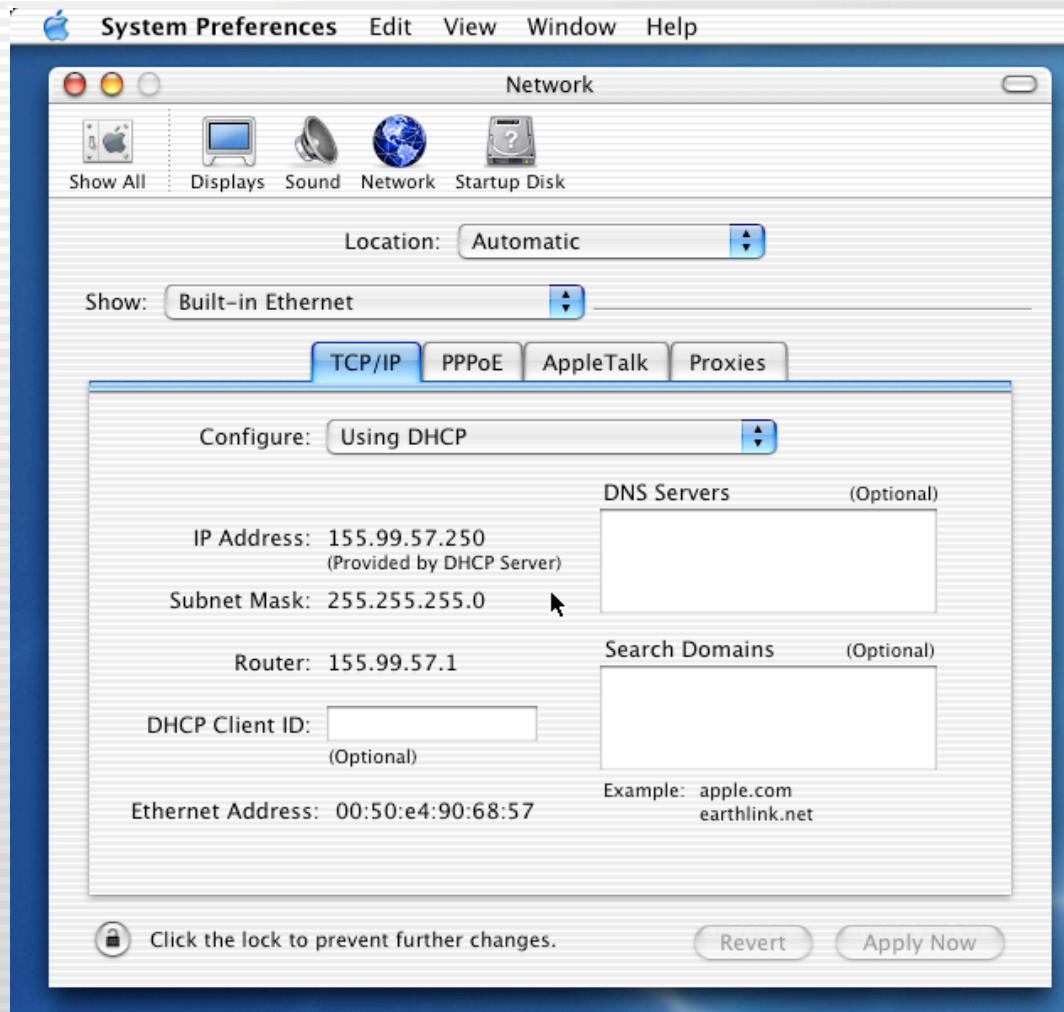
# System Prefs: Sound



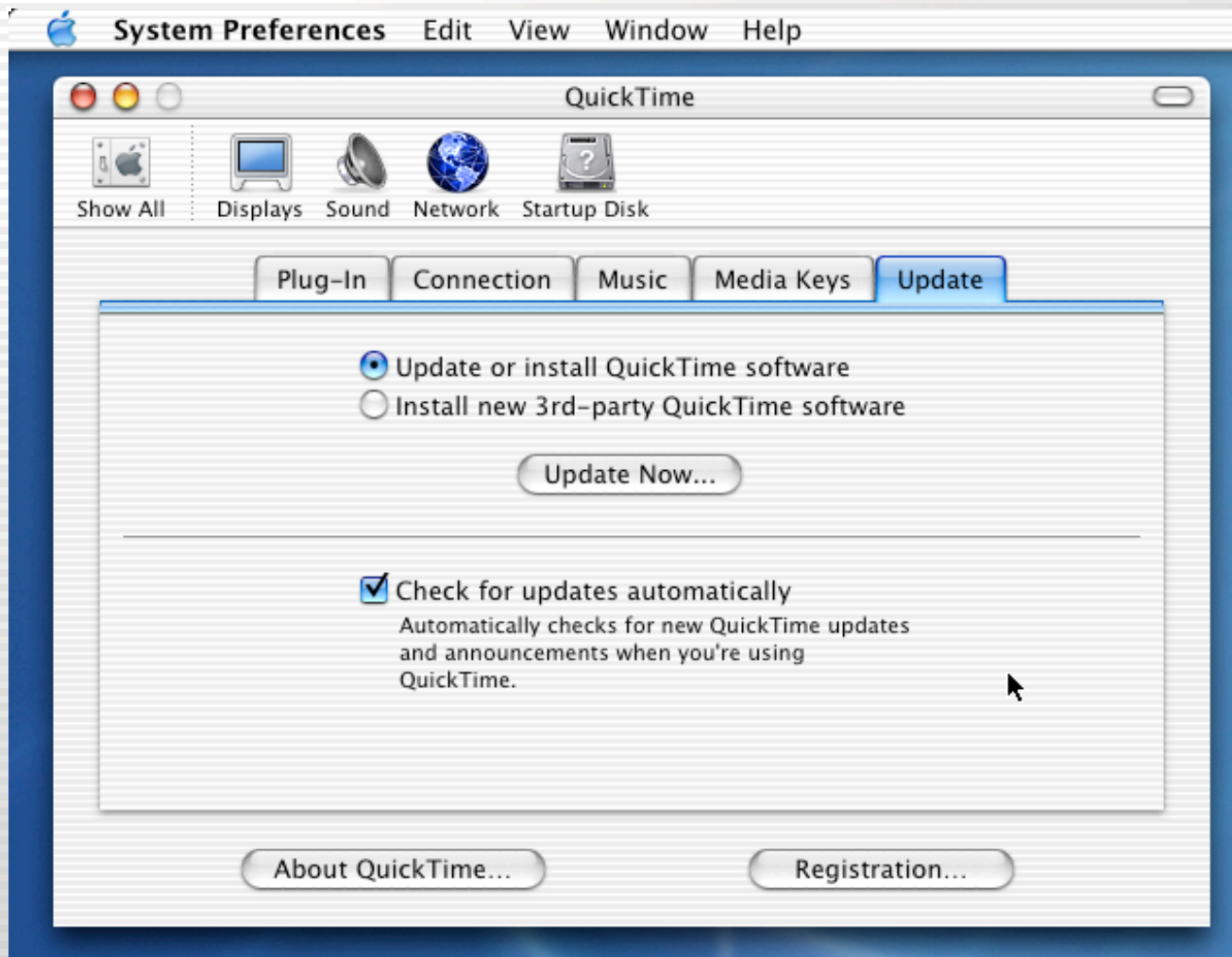
# System Prefs: Internet



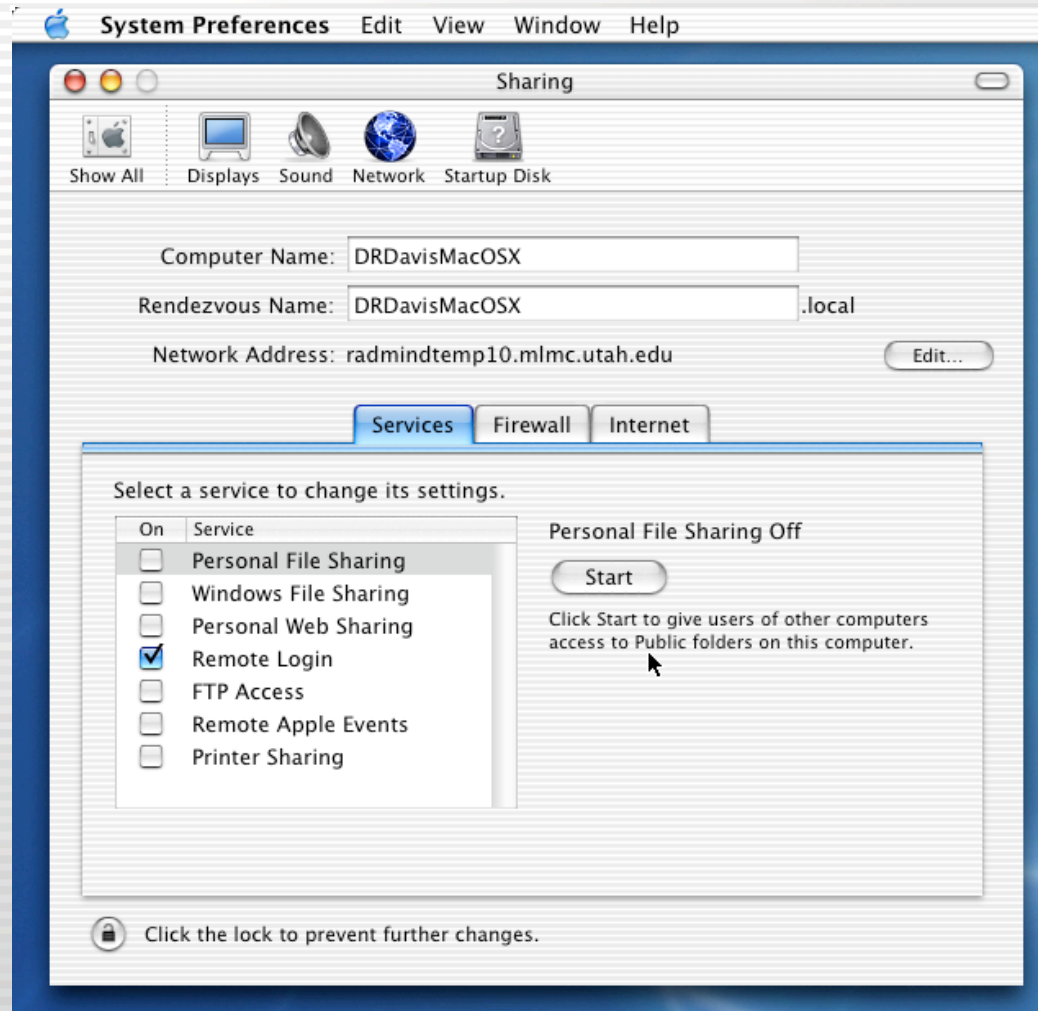
# System Prefs: Network



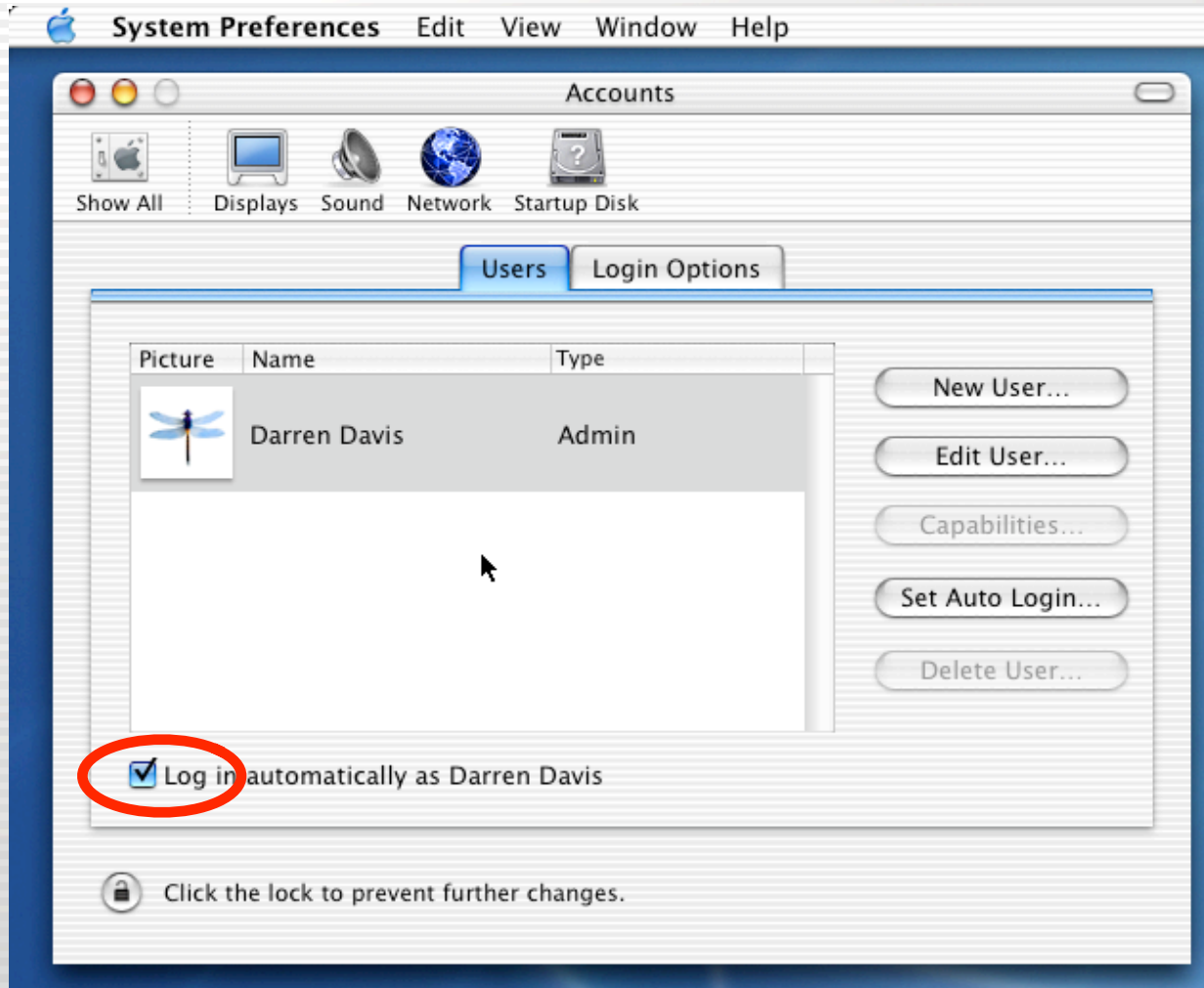
# System Prefs: QuickTime



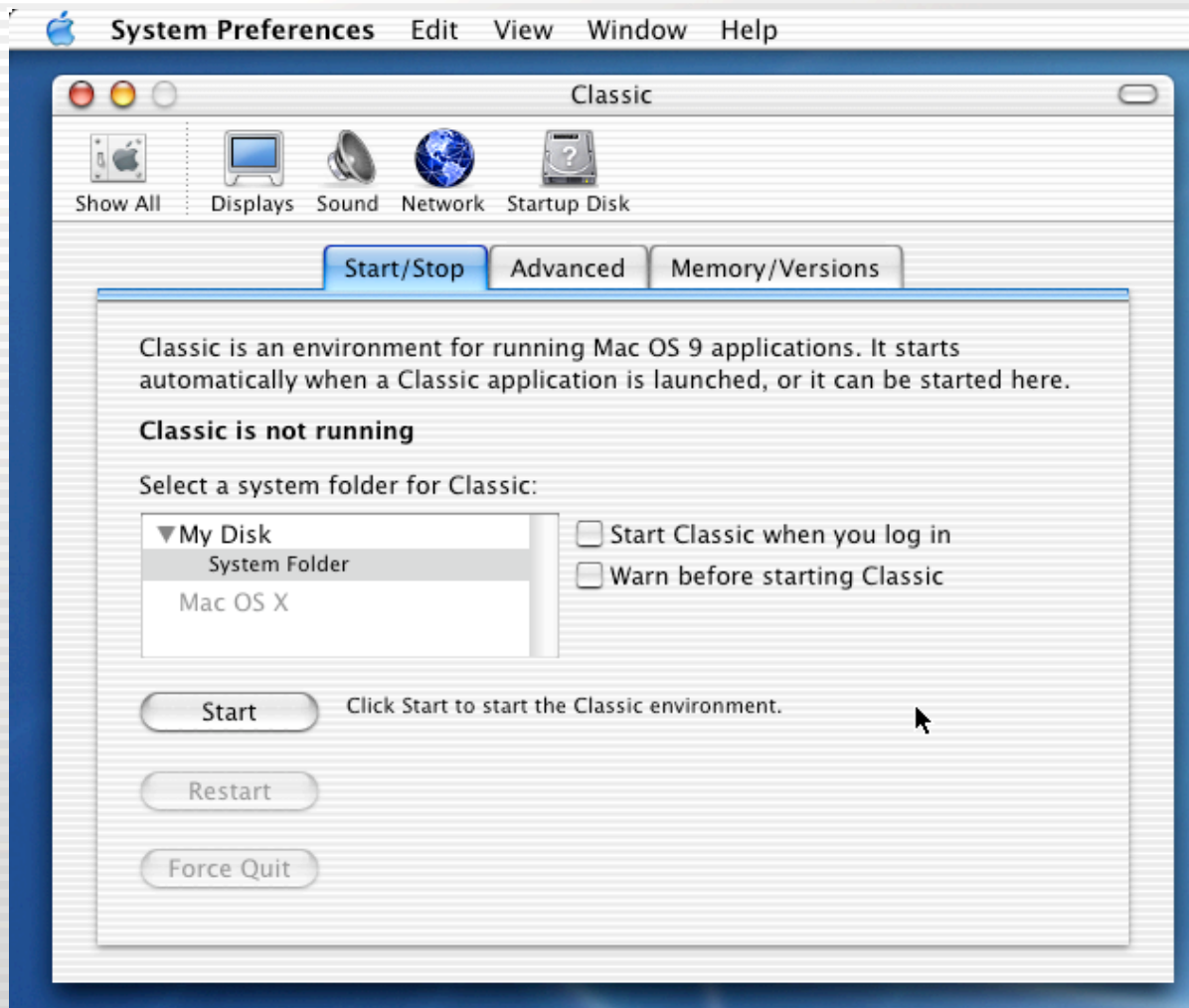
# System Prefs: Sharing



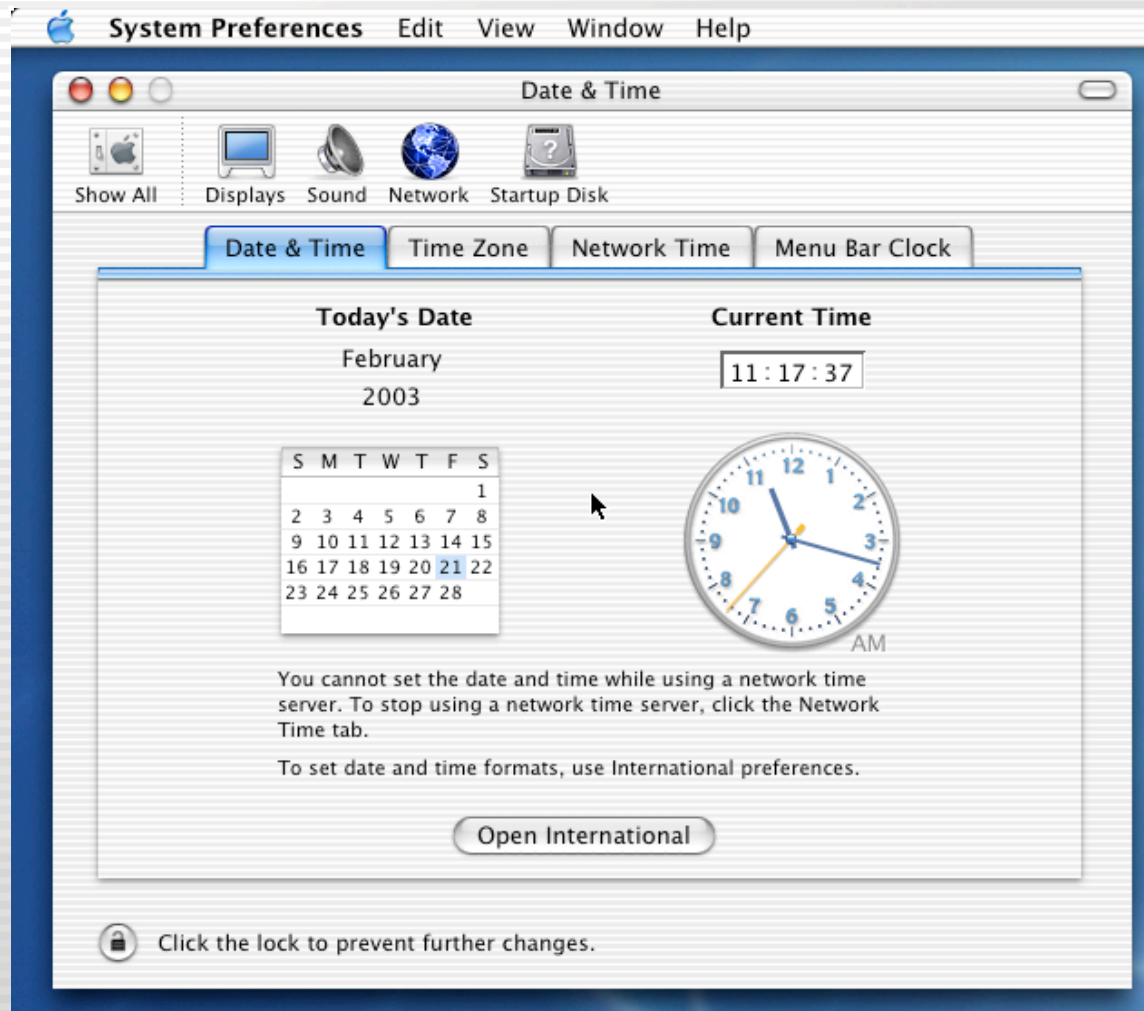
# System Prefs: Accounts



# System Prefs: Classic

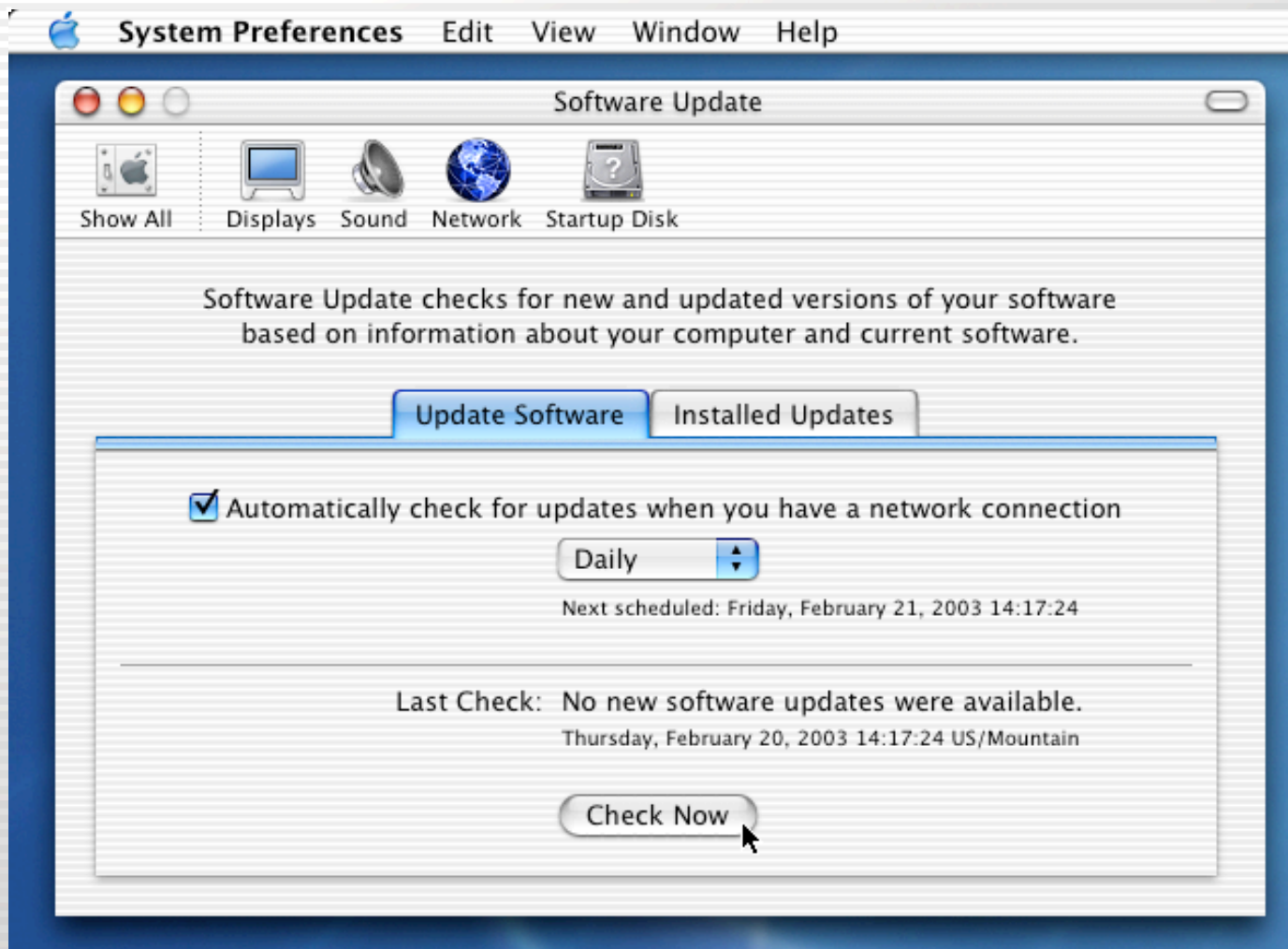


# System Prefs: Date & Time

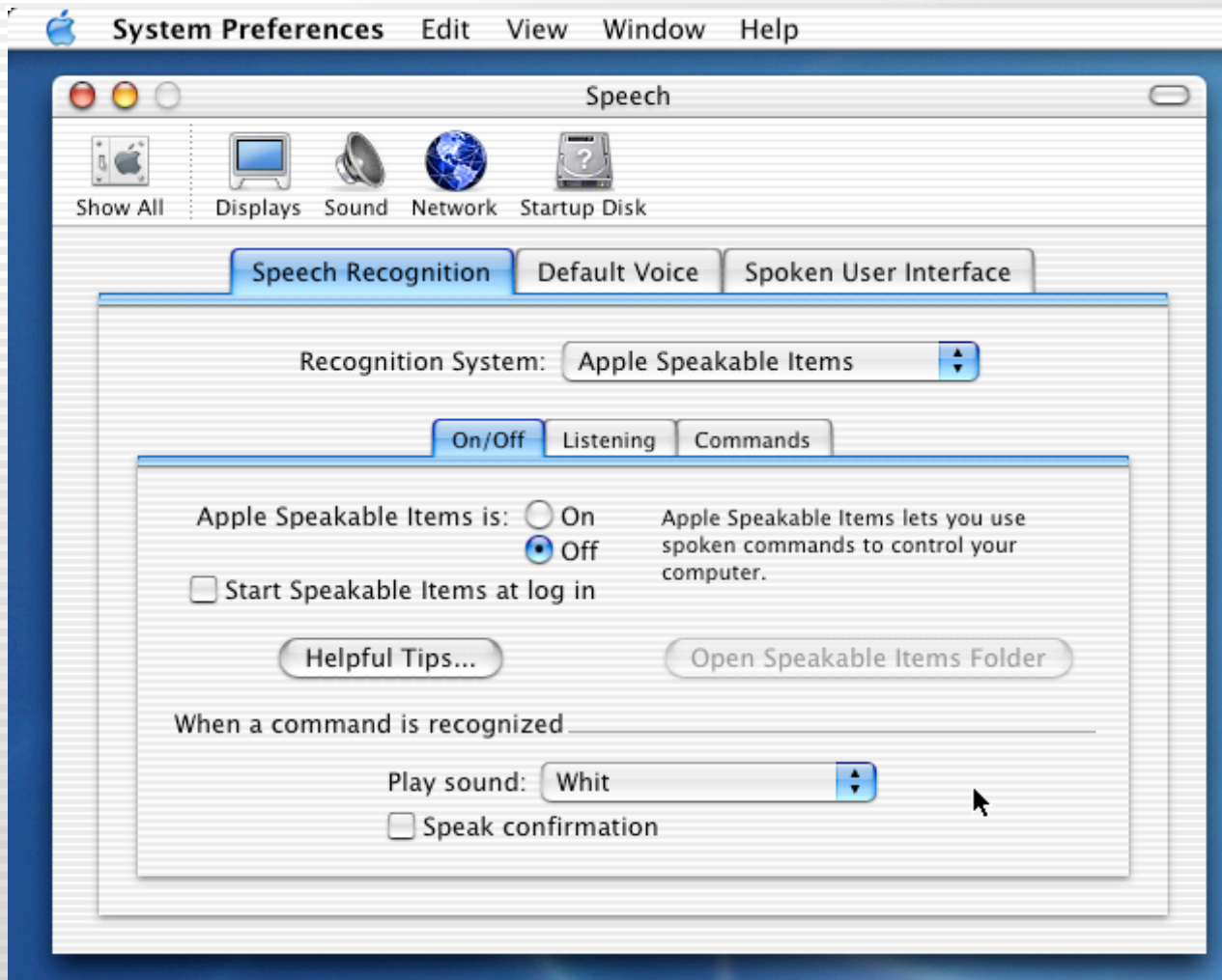




# System Prefs: Software Update



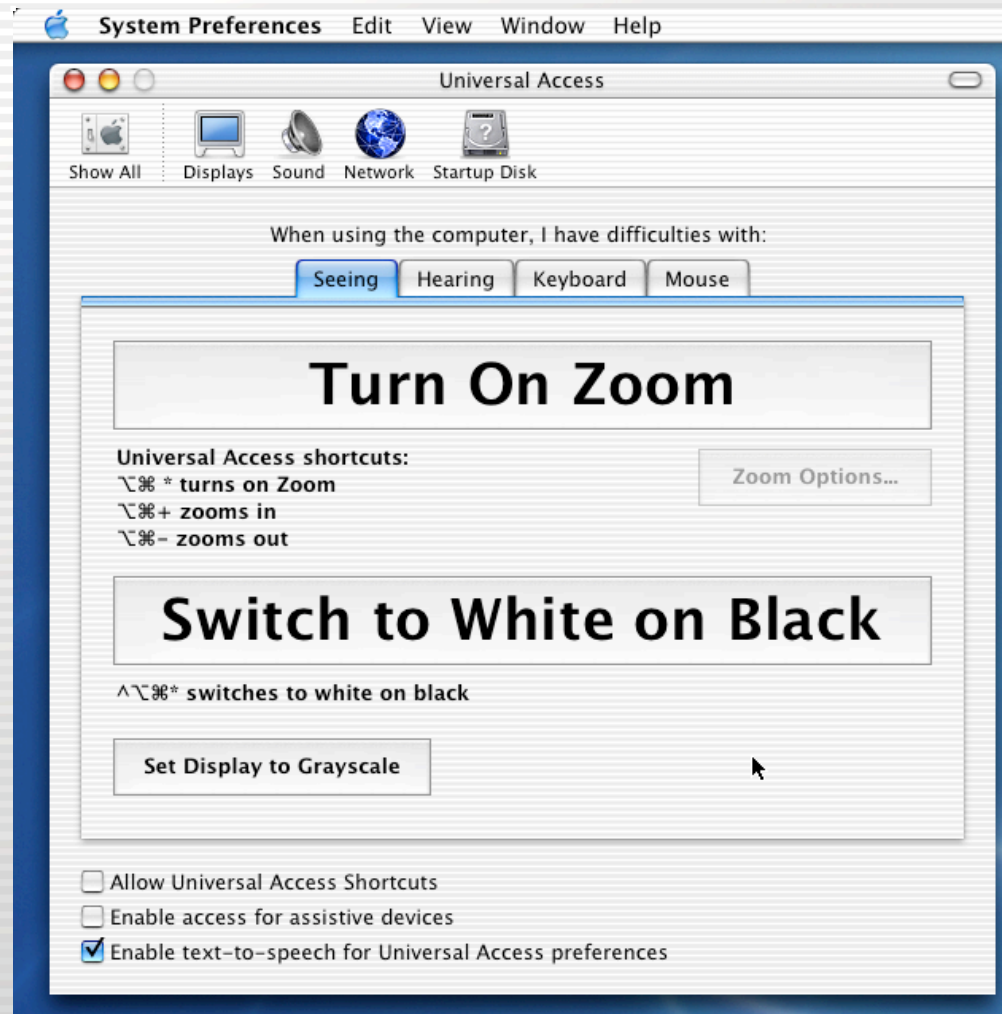
# System Prefs: Speech



# System Prefs: Startup Disk



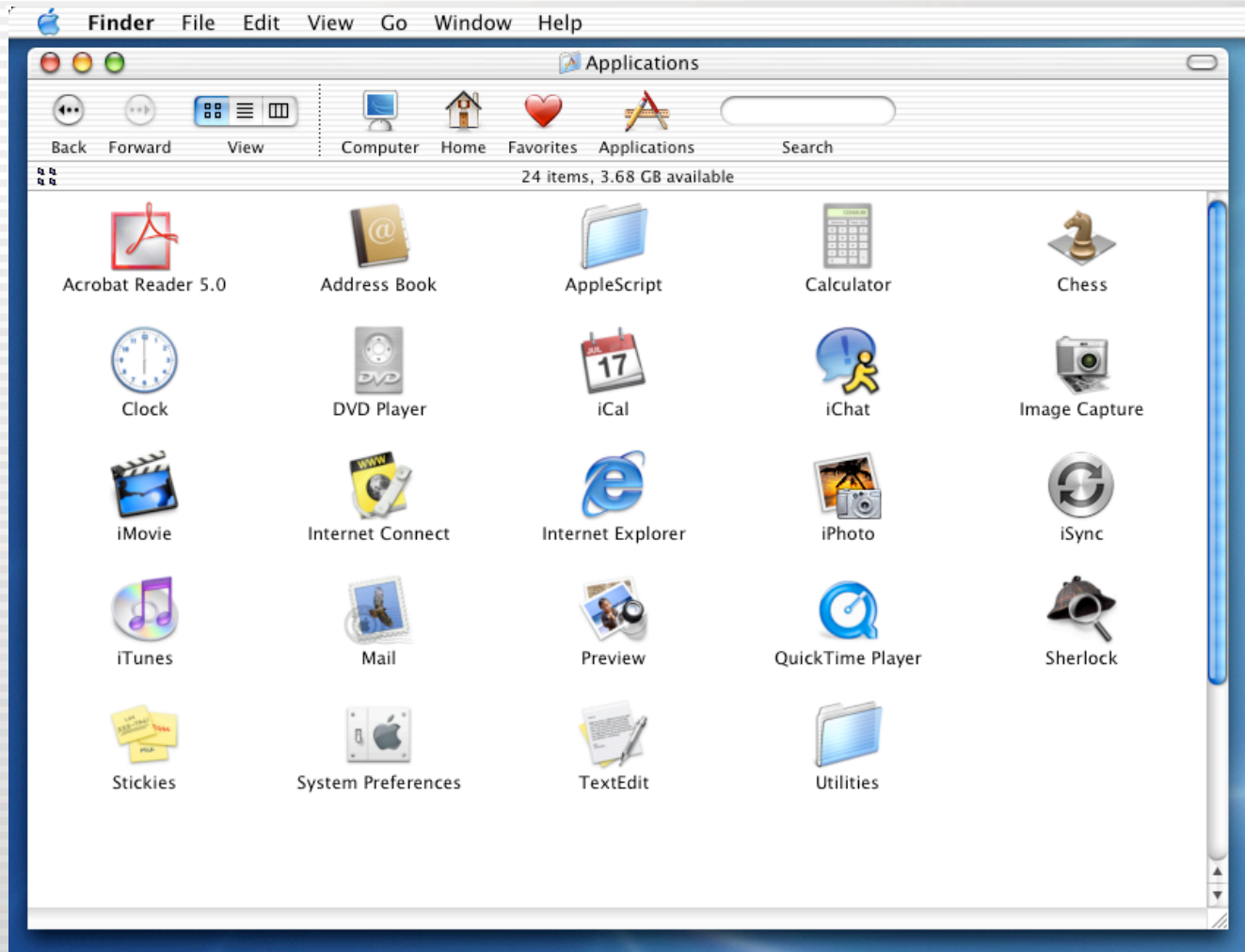
# System Prefs: Universal Access



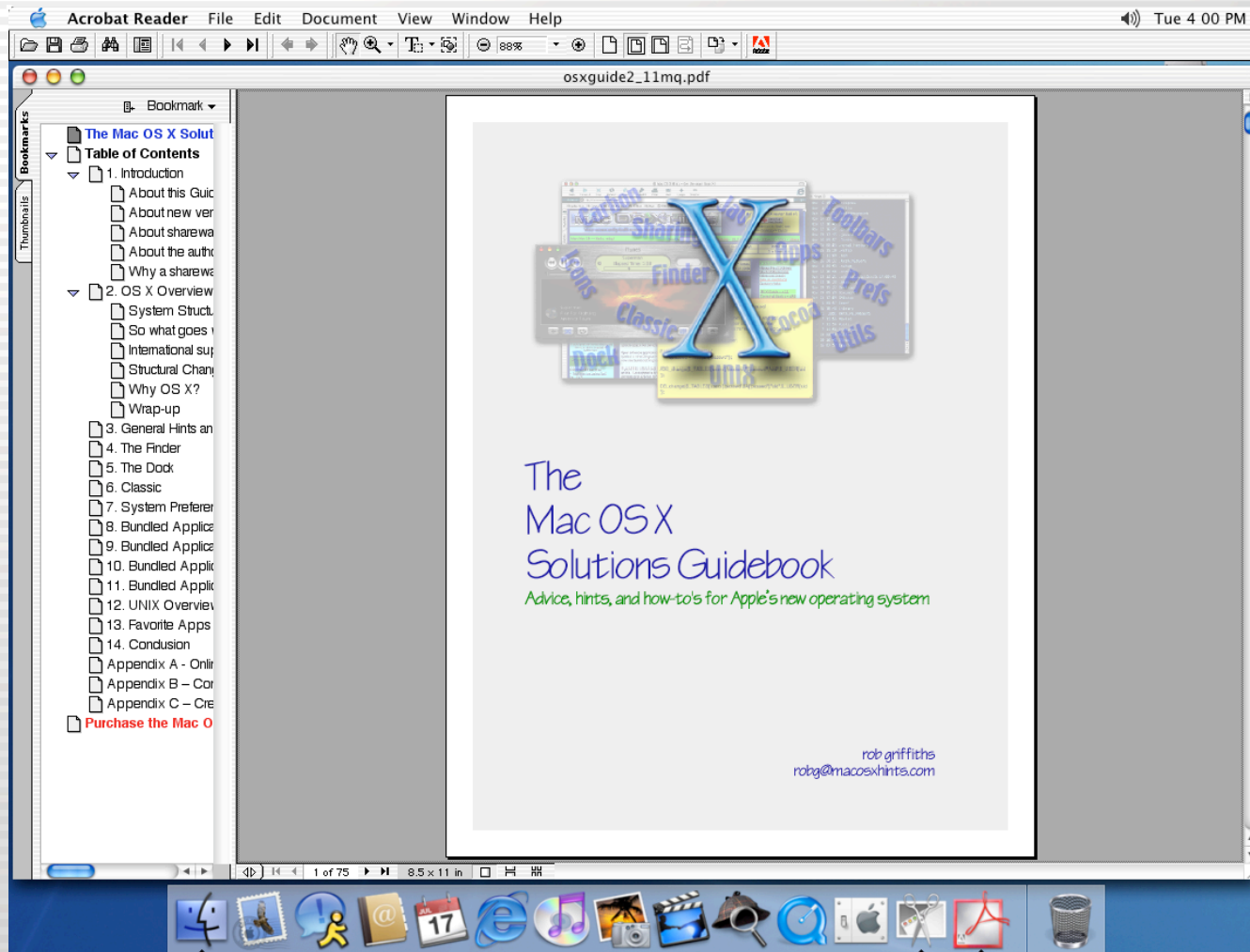
# The Finder and System Preferences

## Demonstration

# Applications



# Acrobat Reader

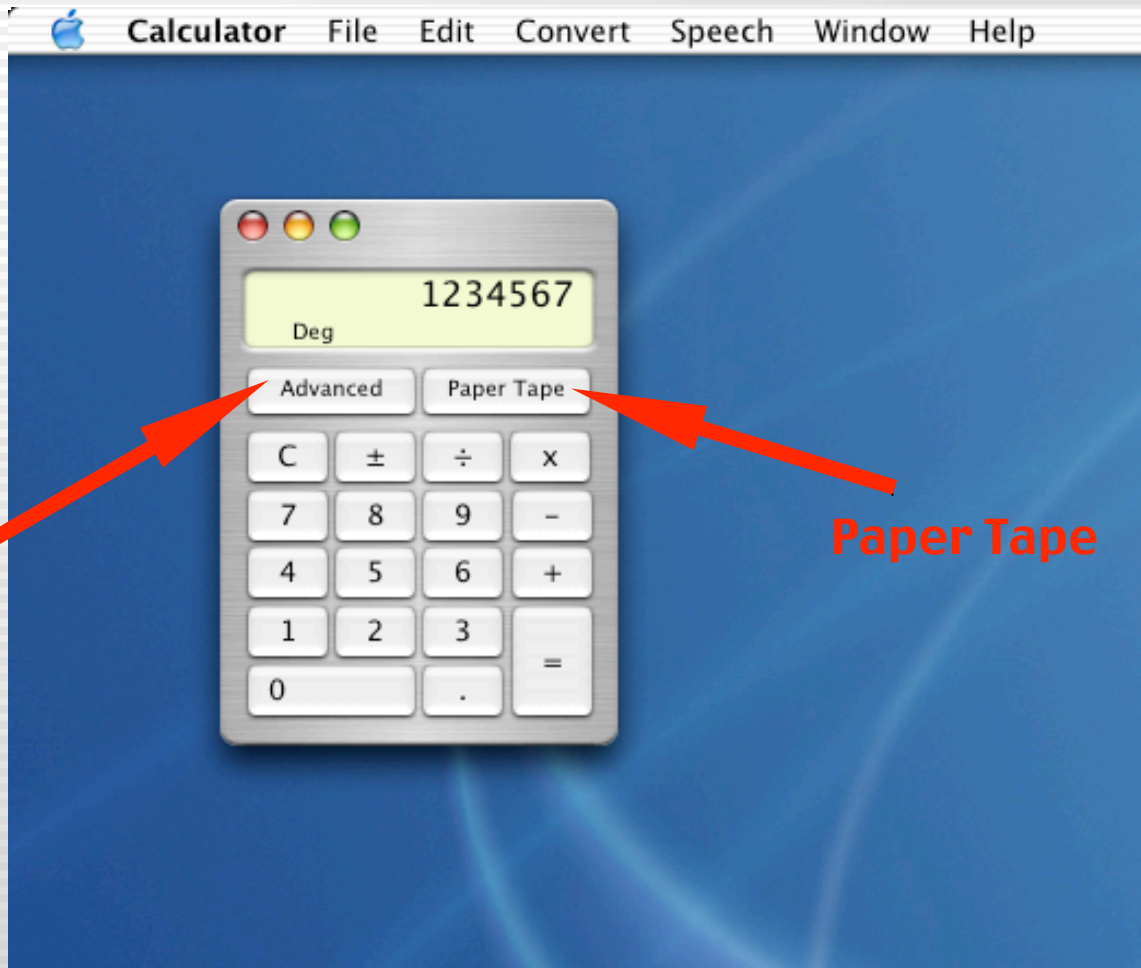


# Address Book





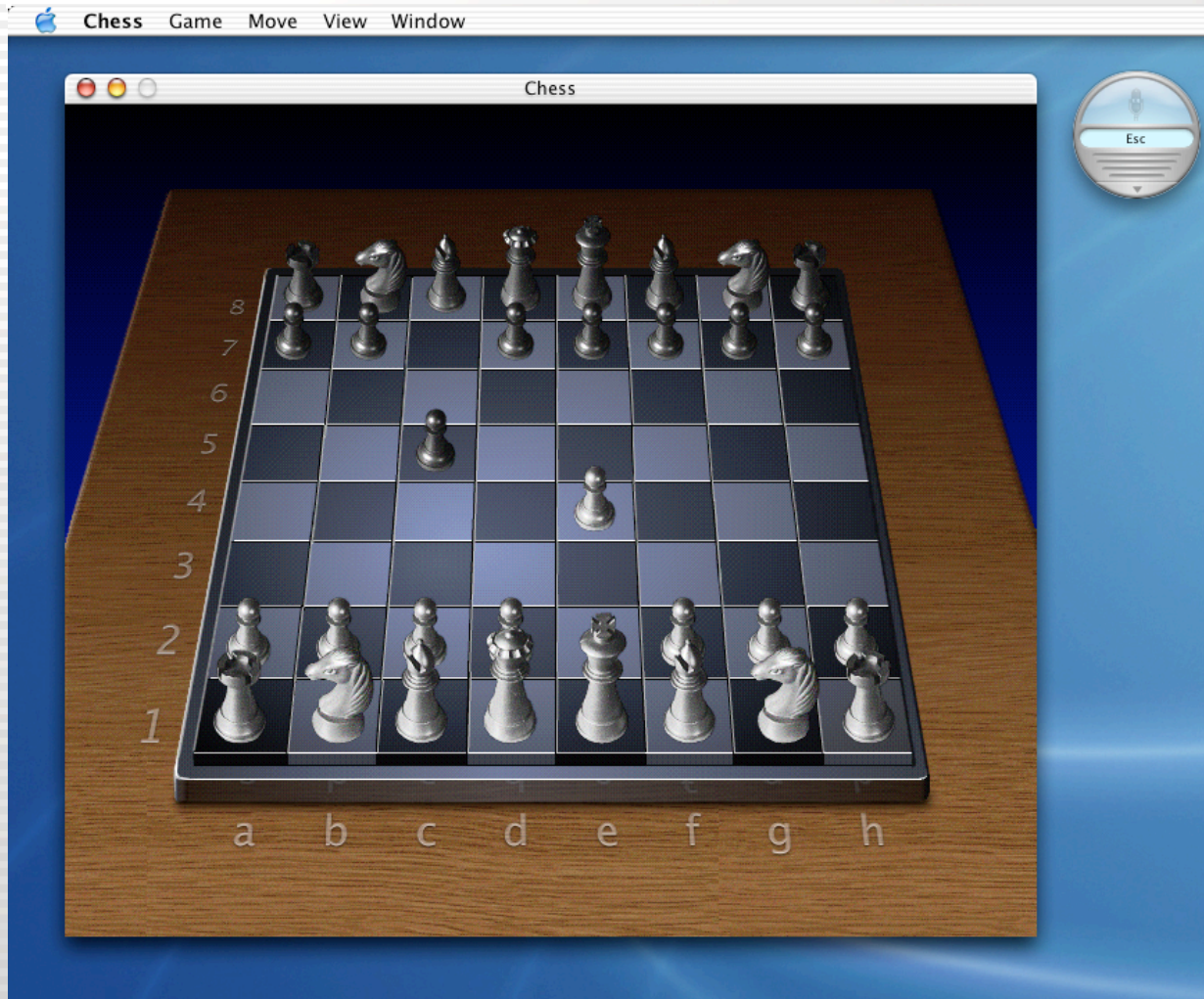
# Calculator



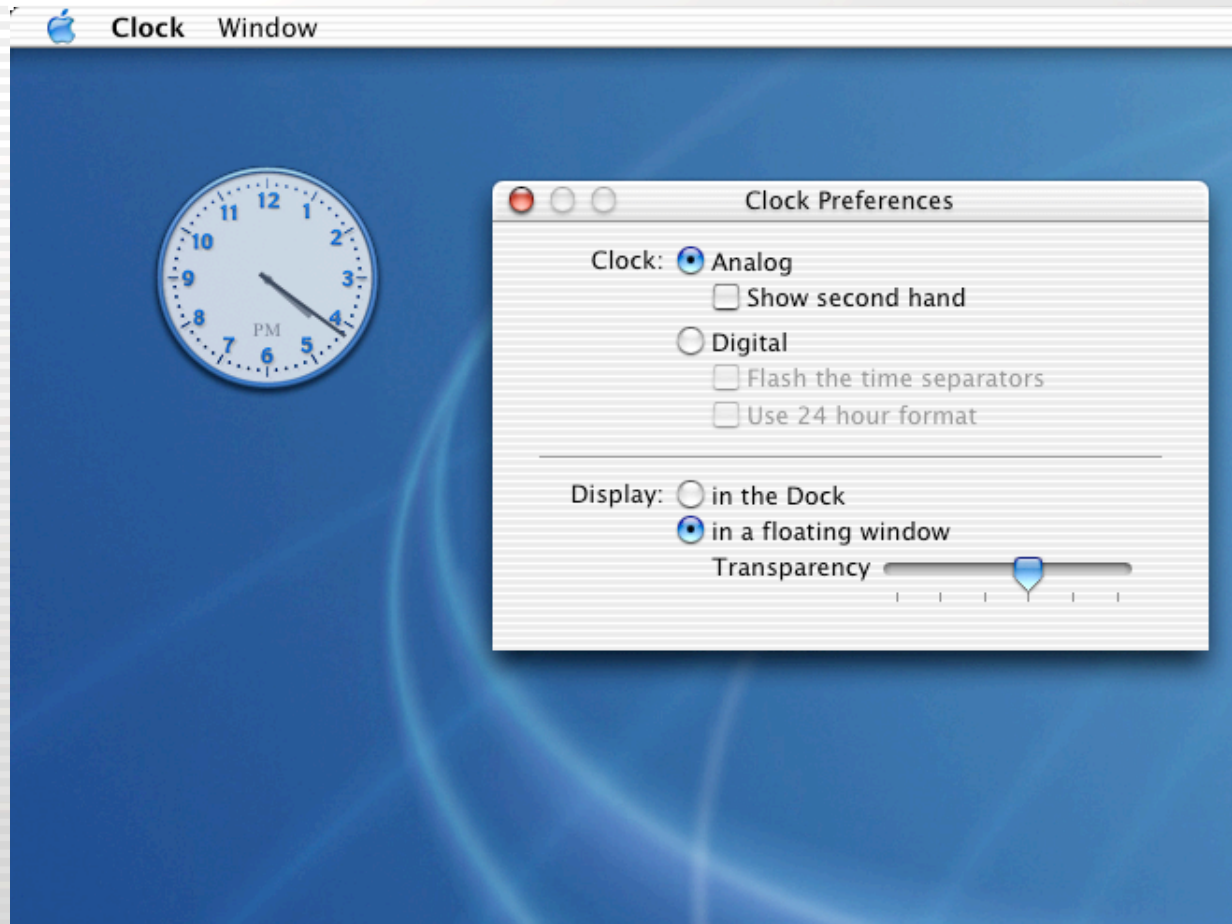
**Advanced  
Mode**

**Paper Tape**

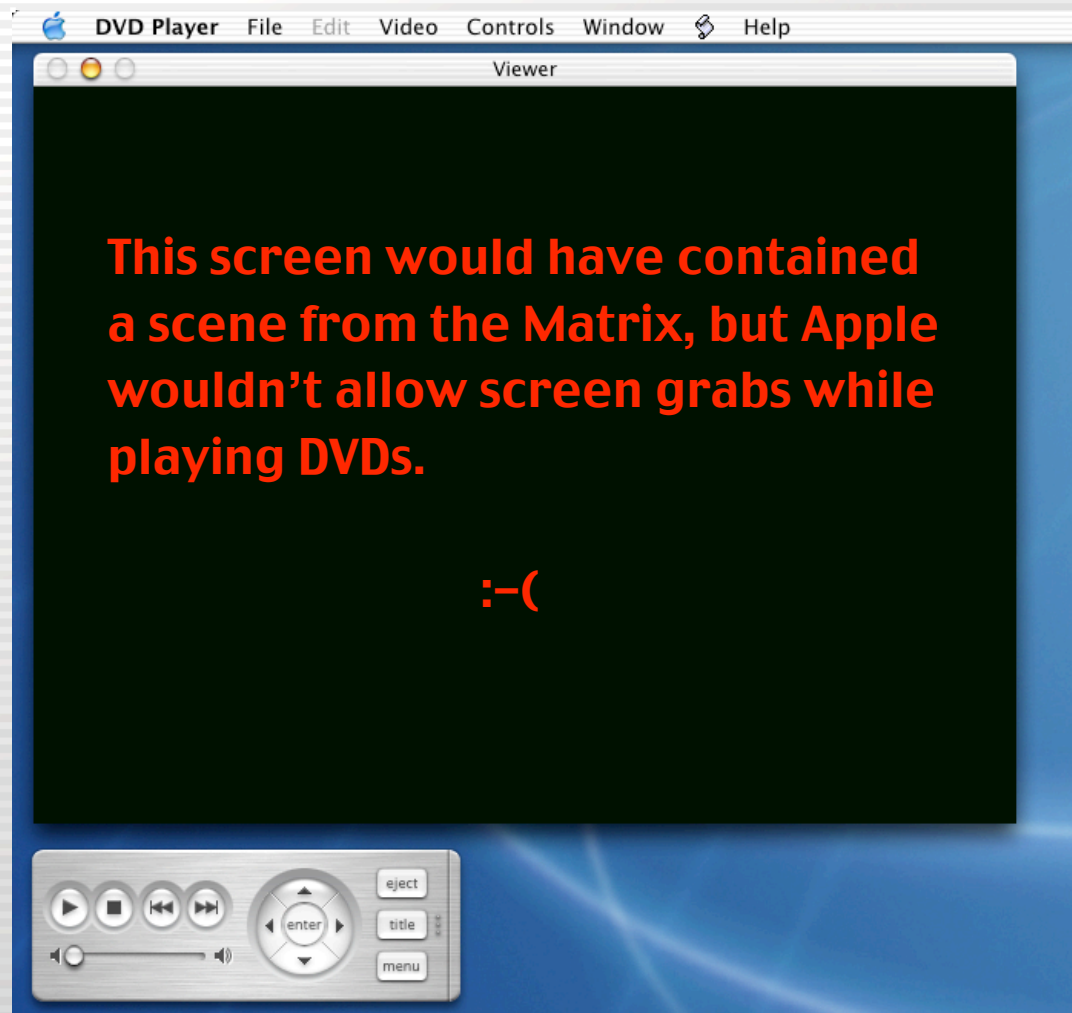
# Chess



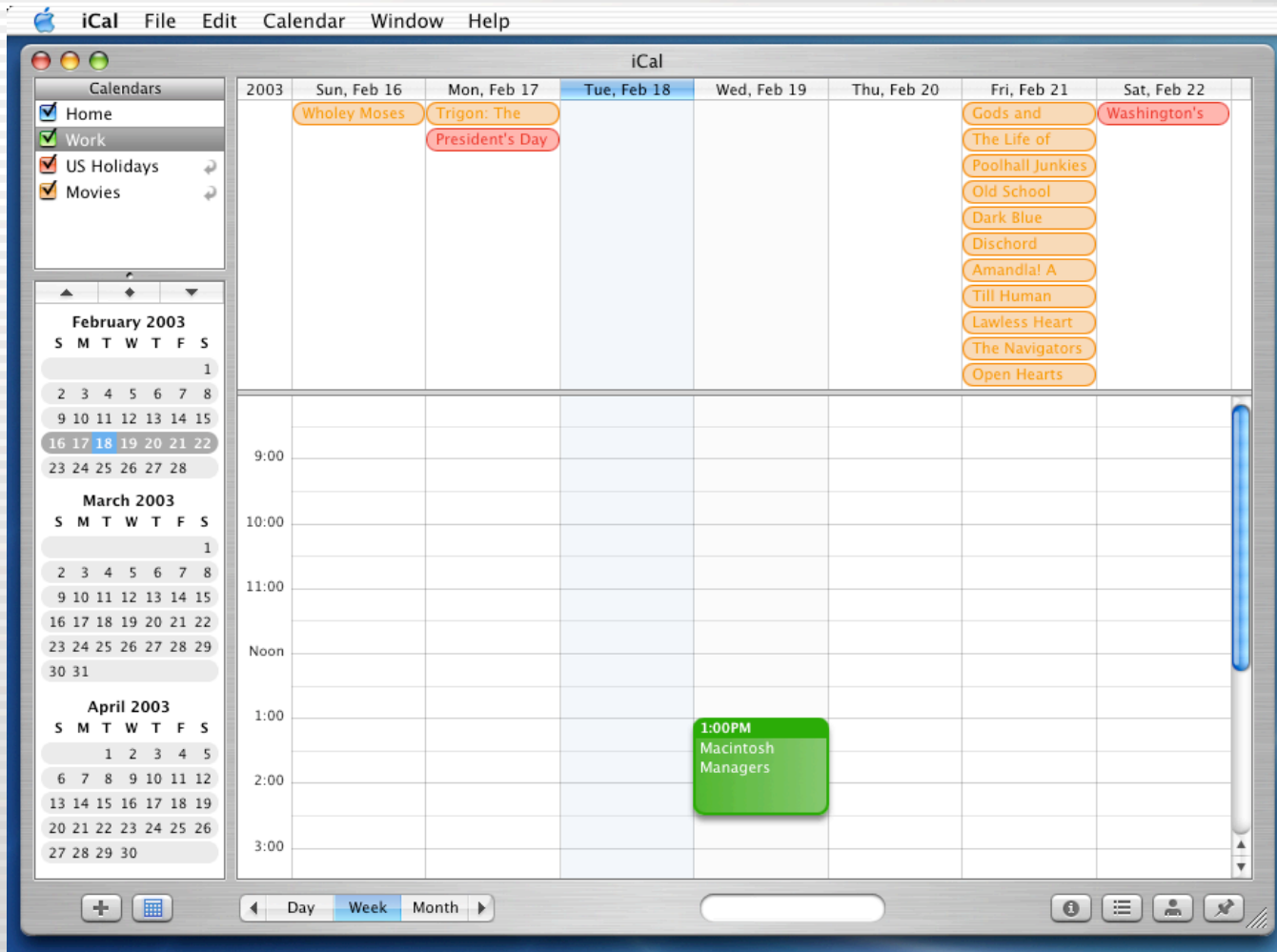
# Clock



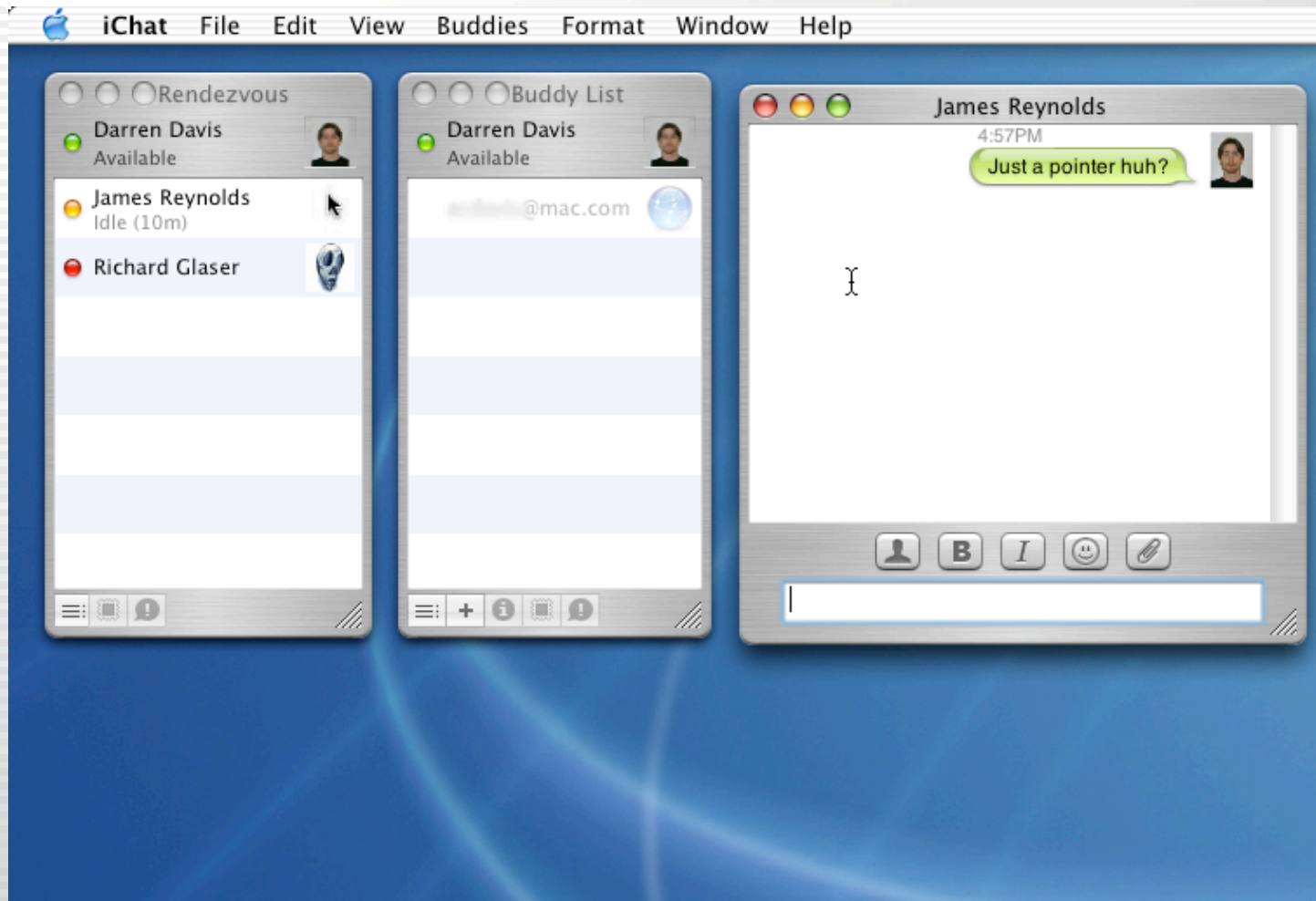
# DVD Player



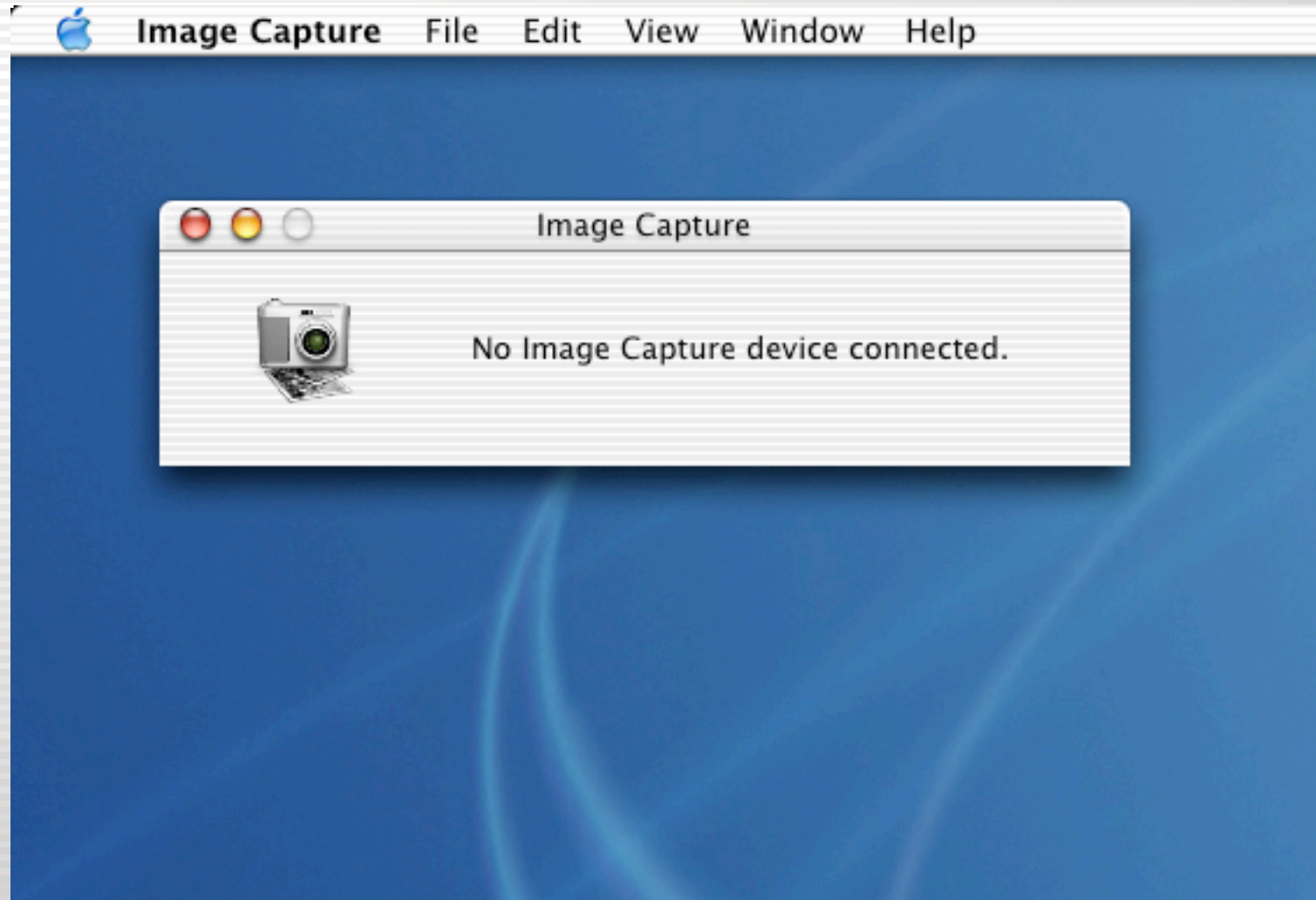
# iCal



# iChat



# Image Capture



# iLife

- iDVD
- iMovie
- iPhoto
- iTunes





# iDVD



## Shoot video.

Capture video and photos using a FireWire based digital camcorder.



## Edit your movie.

Import your video into iMovie using FireWire. Edit and add cool effects.



## Choose a theme.

Browse your finished movies, iPhoto library and iTunes playlists directly in iDVD 3.



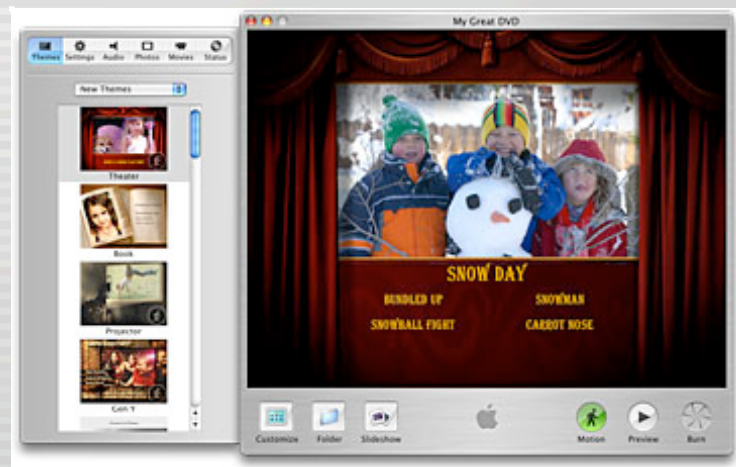
## Burn your DVD.

Create a DVD with scene selection, drop zones, menus and slideshows.

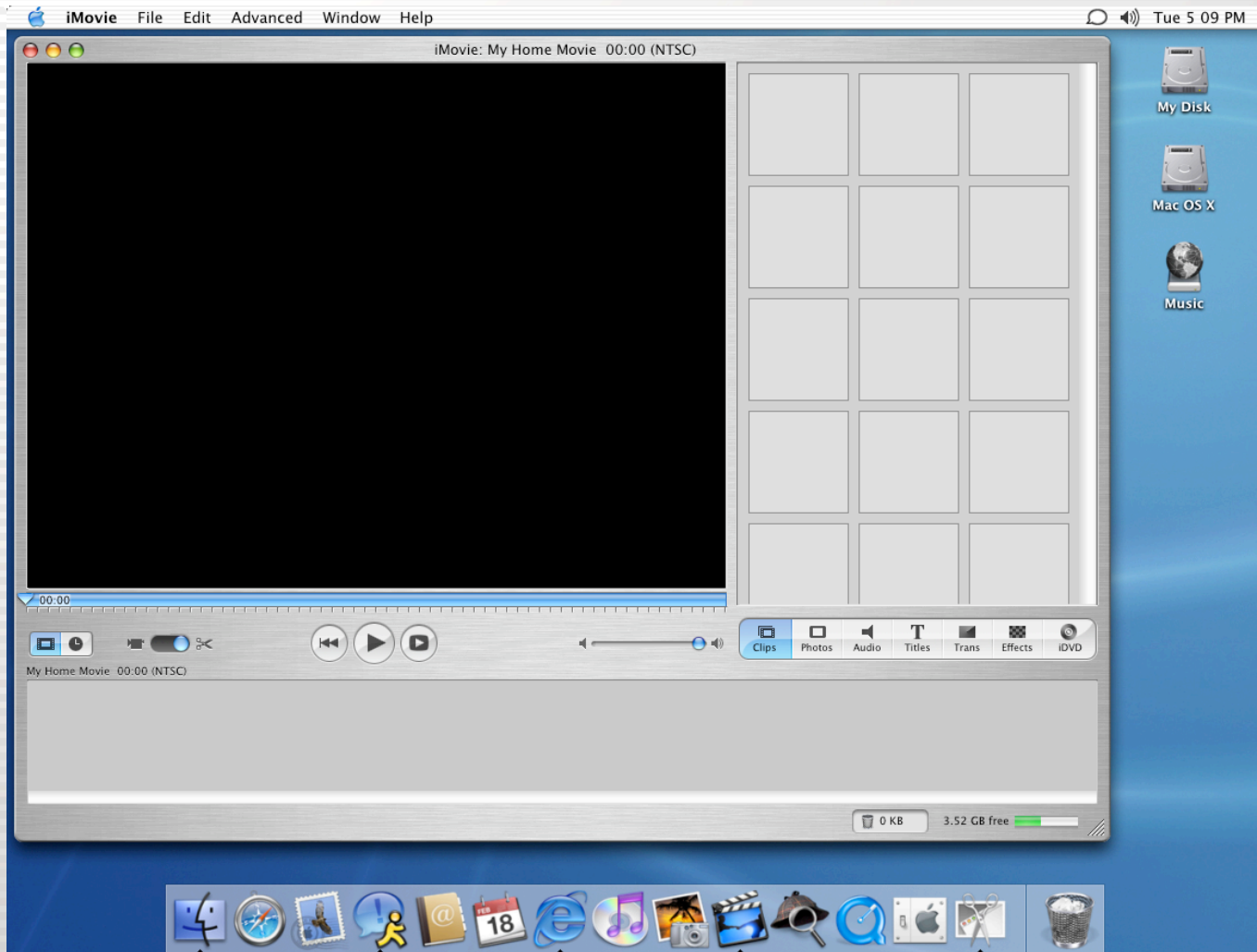


## Enjoy your DVD.

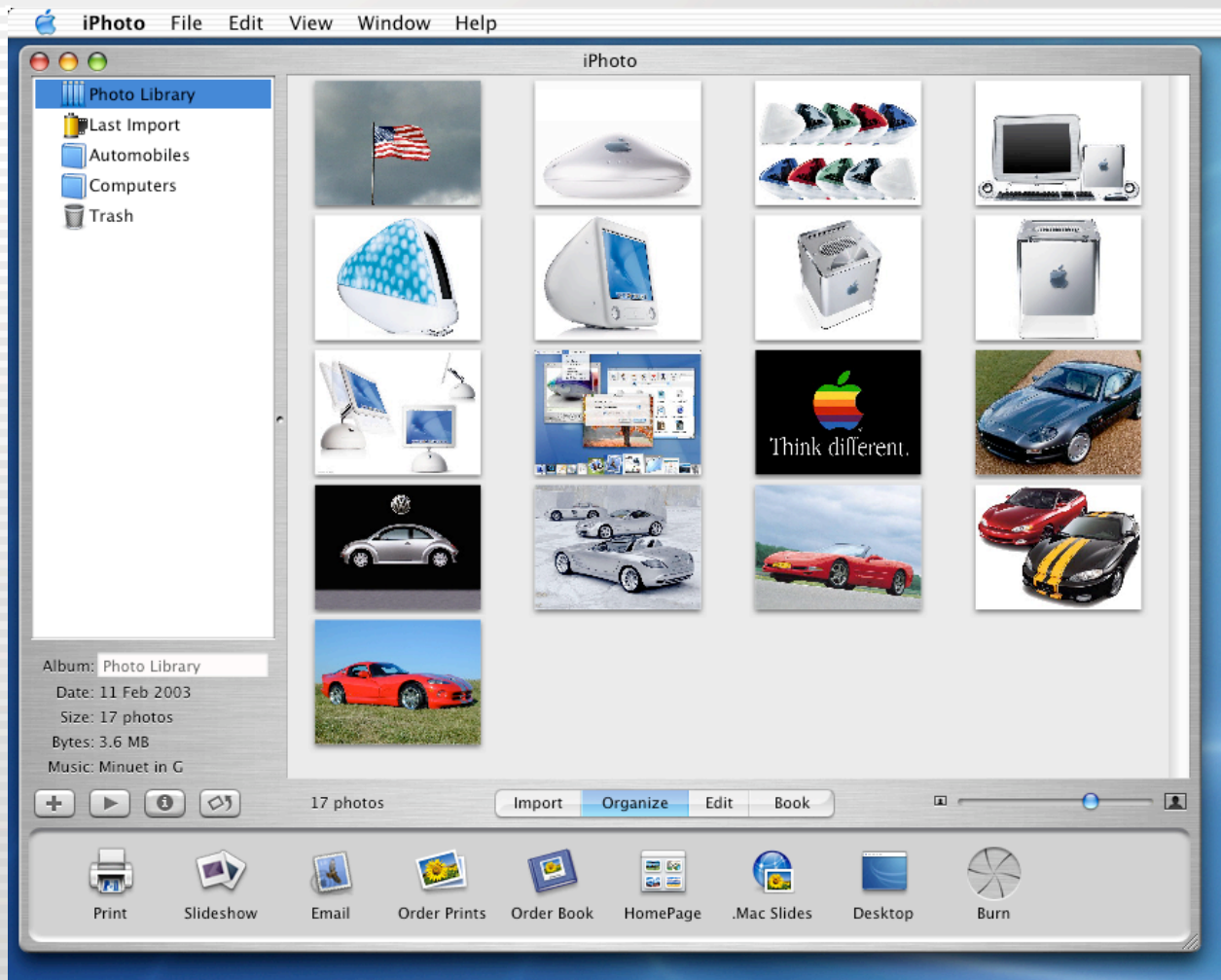
Burn your own custom DVDs with your SuperDrive. Make as many copies as you want.



# iMovie



# iPhoto

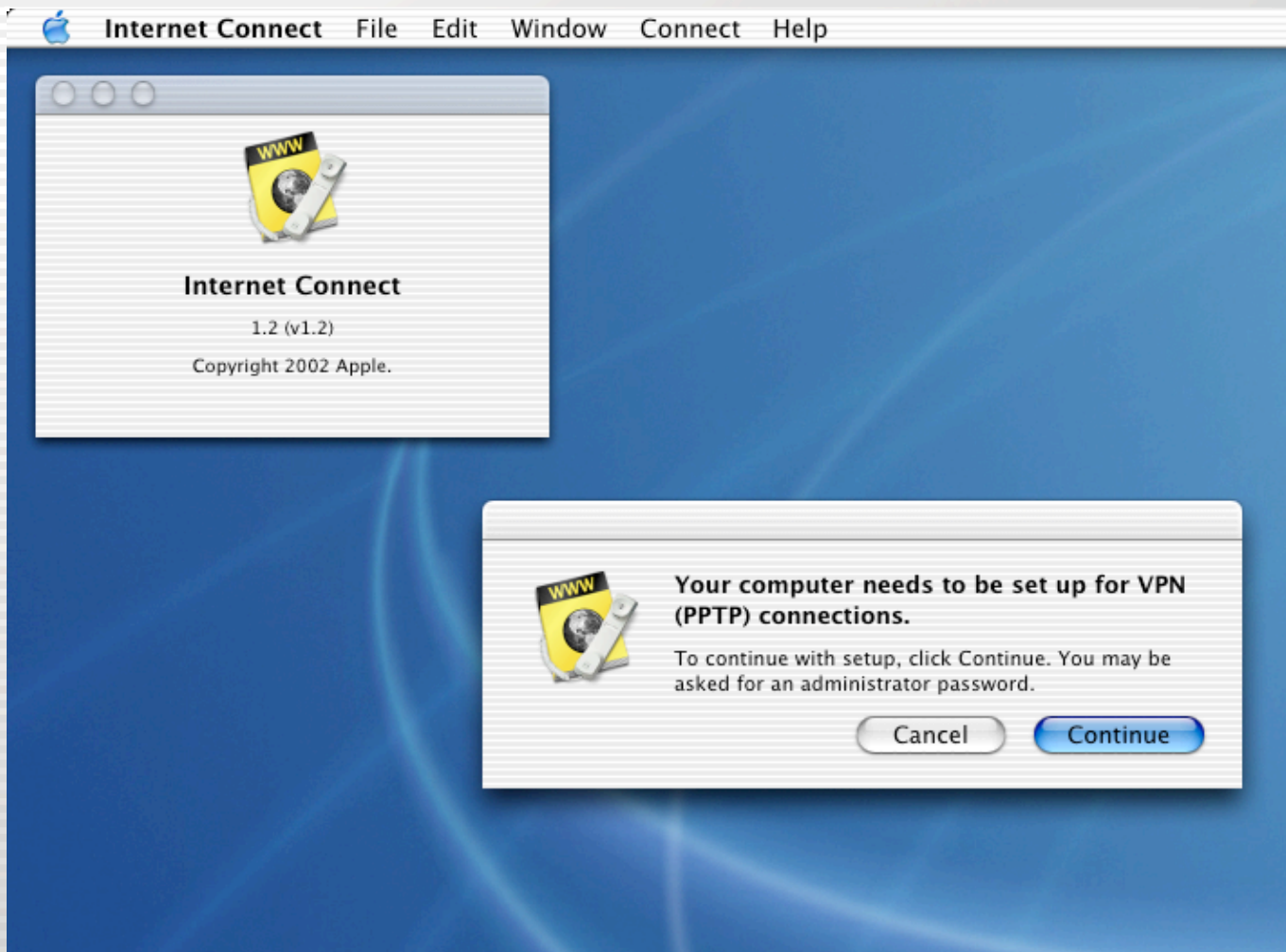


# iTunes

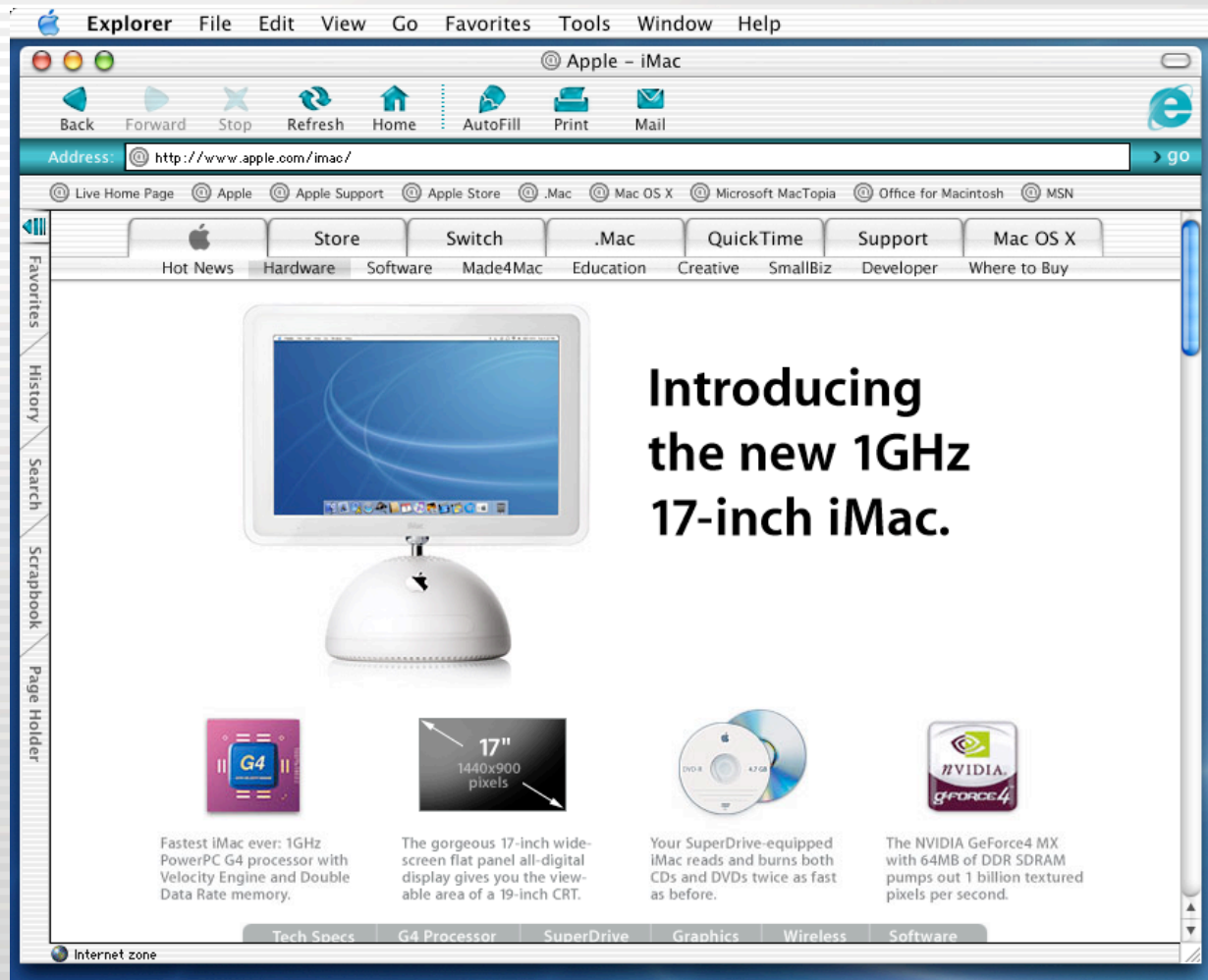
The screenshot shows the iTunes application window on a Mac OS X desktop. The window title is "iTunes" and the menu bar includes "iTunes", "File", "Edit", "Controls", "Visuals", "Advanced", "Window", and "Help". The interface features a playback control bar at the top with buttons for play/pause, previous, and next, along with a progress slider. The main area is a table of songs, with "Shepherd Moons" selected. The left sidebar shows the "Source" menu with options like Library, Radio, 60's Music, My Top Rated, Recently Played, Top 25 Most Played, Enigma - MCMXC A.D., and Enya. The bottom status bar indicates "34 songs, 2.1 hours, 202.7 MB".

Song Name	Time	Artist	Album	Genre	My Rating
<input checked="" type="checkbox"/> fallen embers	2:31	Enya	A day without rain	Alternative	
<input checked="" type="checkbox"/> pilgrim	3:12	Enya	A day without rain	Alternative	
<input checked="" type="checkbox"/> one by one	3:56	Enya	A day without rain	Alternative	
<input checked="" type="checkbox"/> lazy days	3:42	Enya	A day without rain	Alternative	
<input checked="" type="checkbox"/> Shepherd Moons	3:44	Enya	Shepard moons	New Age	
<input checked="" type="checkbox"/> Caribbean Blue	3:59	Enya	Shepard moons	New Age	
<input checked="" type="checkbox"/> No Holly For Miss Quinn	2:43	Enya	Shepard moons	New Age	
<input checked="" type="checkbox"/> Lothorien	2:07	Enya	Shepard moons	New Age	
<input checked="" type="checkbox"/> The Memory of Trees	4:19	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> Pax Deorum	4:59	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> Athair Ar Neahm	3:42	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> From Where I Am	2:22	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> China Roses	4:49	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> Once You Had Gold	3:18	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> La Sonadora	3:38	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> On My Way Home	5:09	Enya	The Memory of Trees	World	
<input checked="" type="checkbox"/> Watermark	2:25	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Storms In Africa	4:04	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Excile	4:21	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Miss Clare Remembers	1:59	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Evening Falls	3:49	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> River	3:12	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> The Long Ships	3:39	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Na Laetha Geal M'oige	3:56	Enya	Watermark	New Age	
<input checked="" type="checkbox"/> Storms In Africa II	3:01	Enya	Watermark	New Age	

# Internet Connect



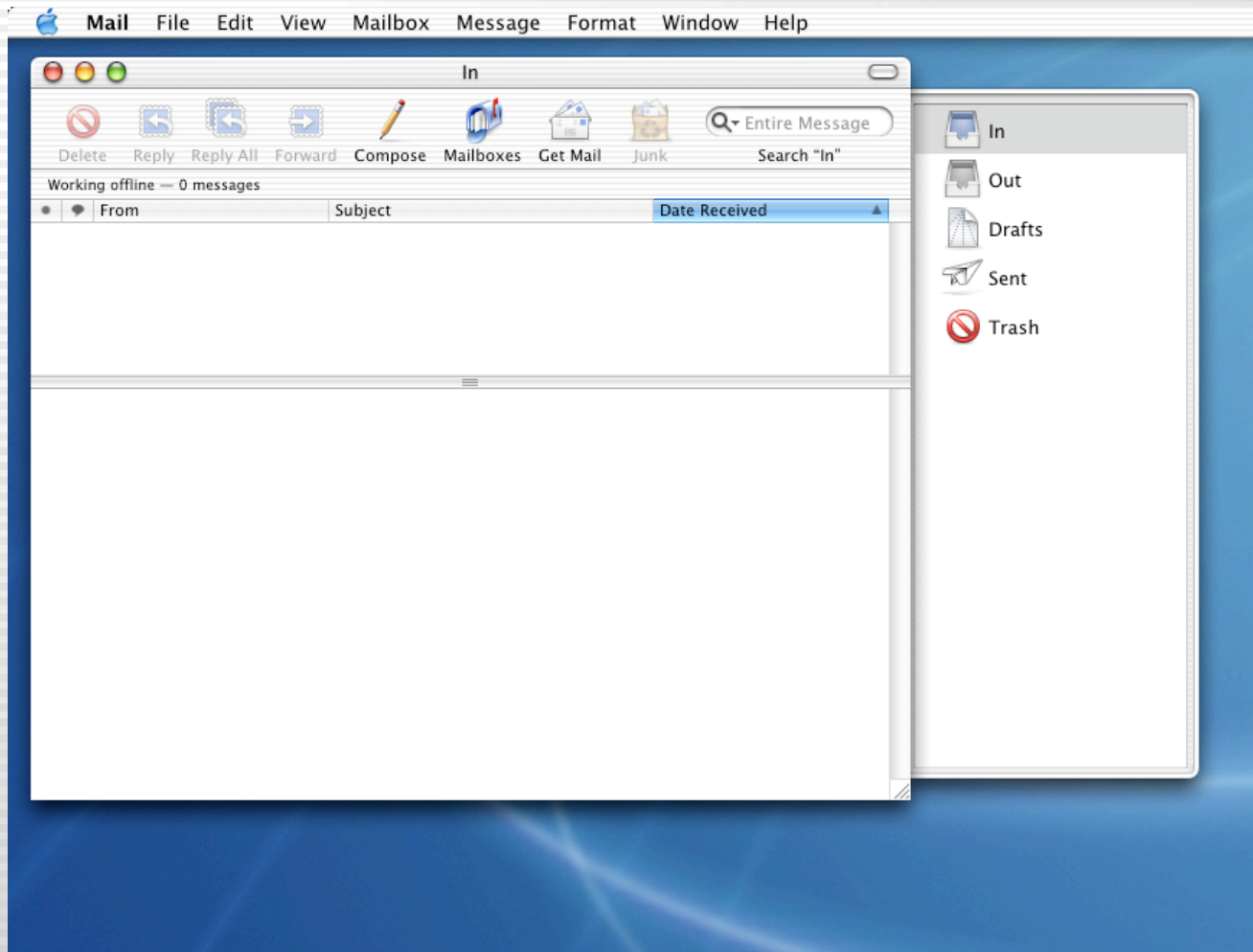
# Internet Explorer



# iSync



# Mail





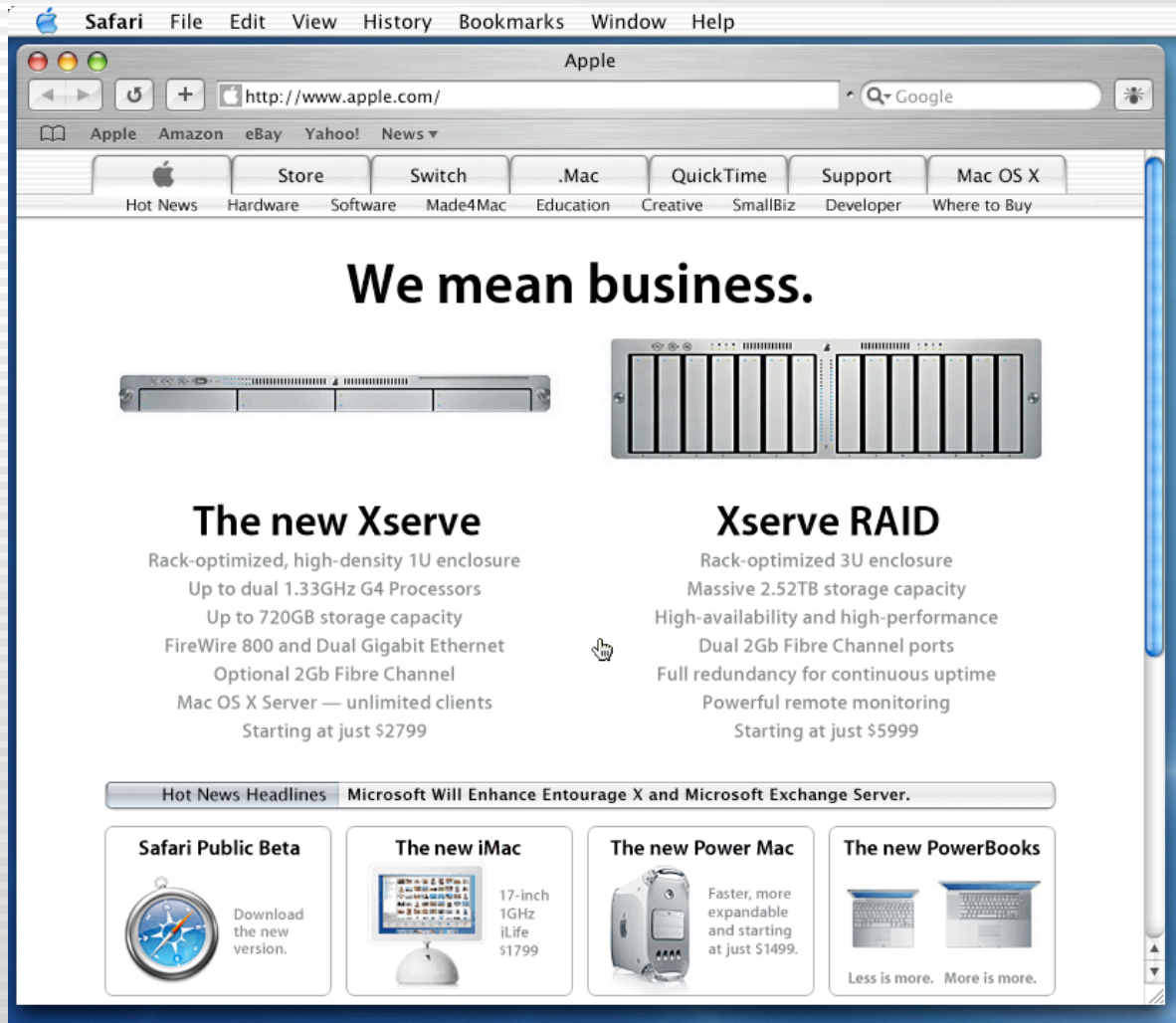
# Preview



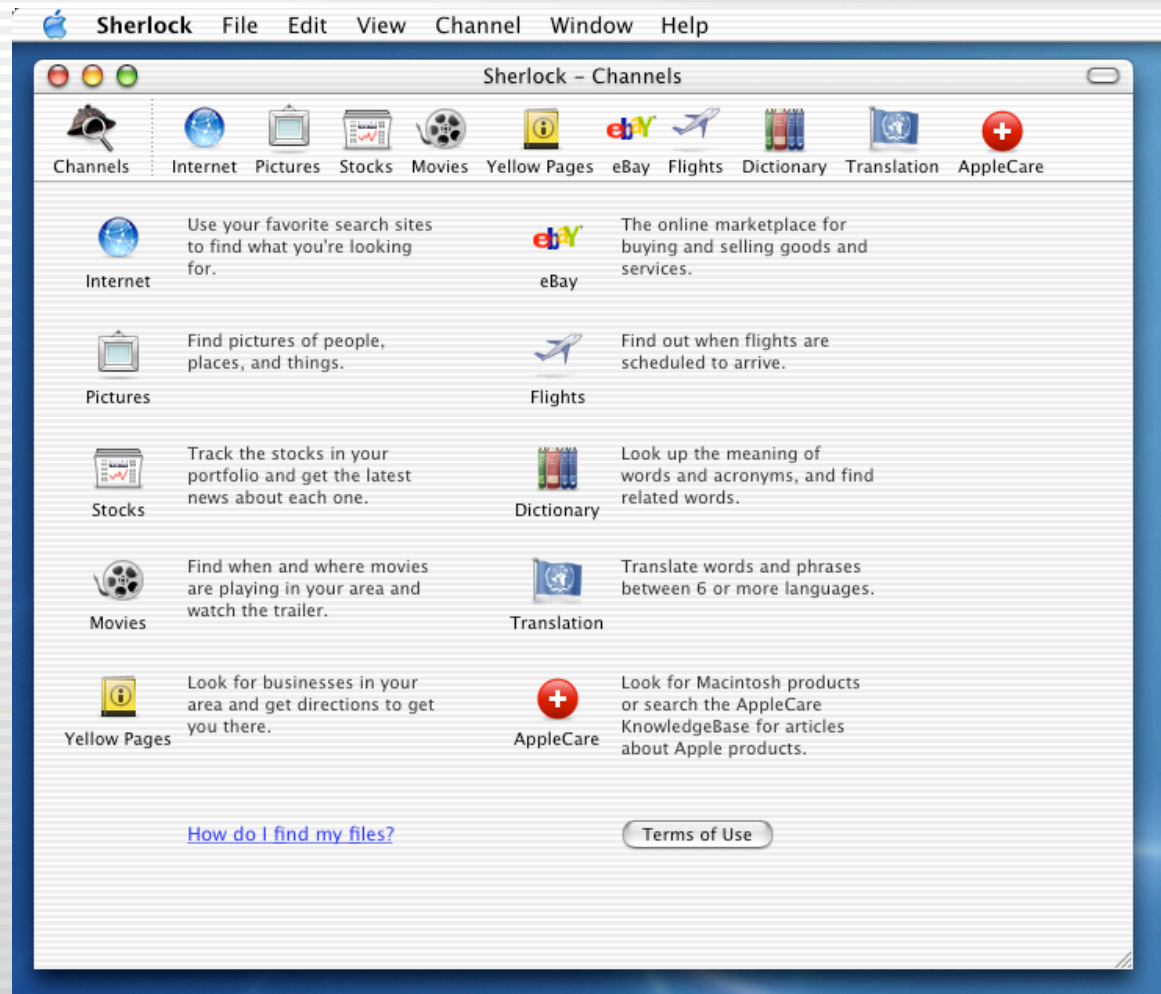
# QuickTime Player



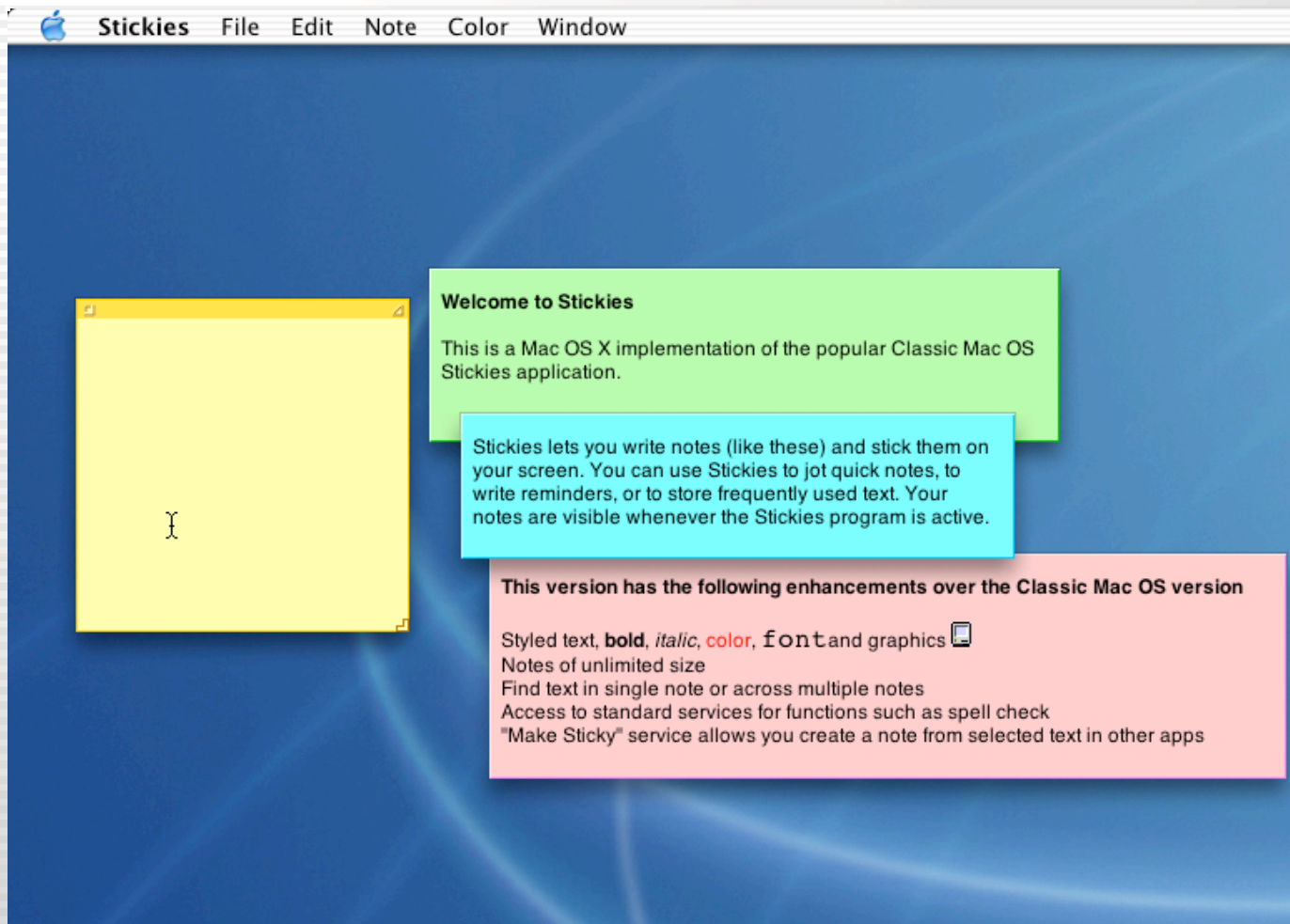
# Safari (Beta)



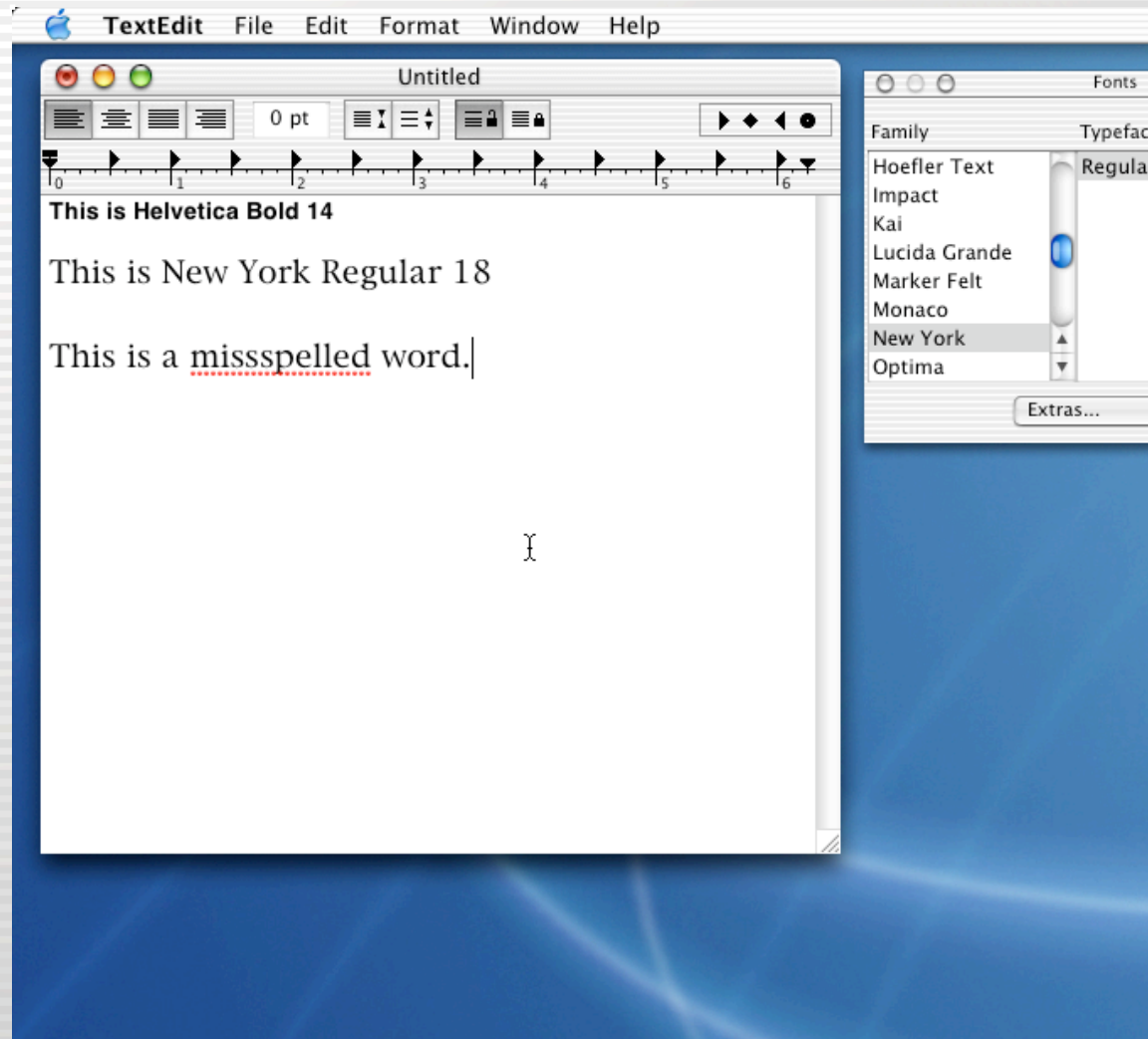
# Sherlock



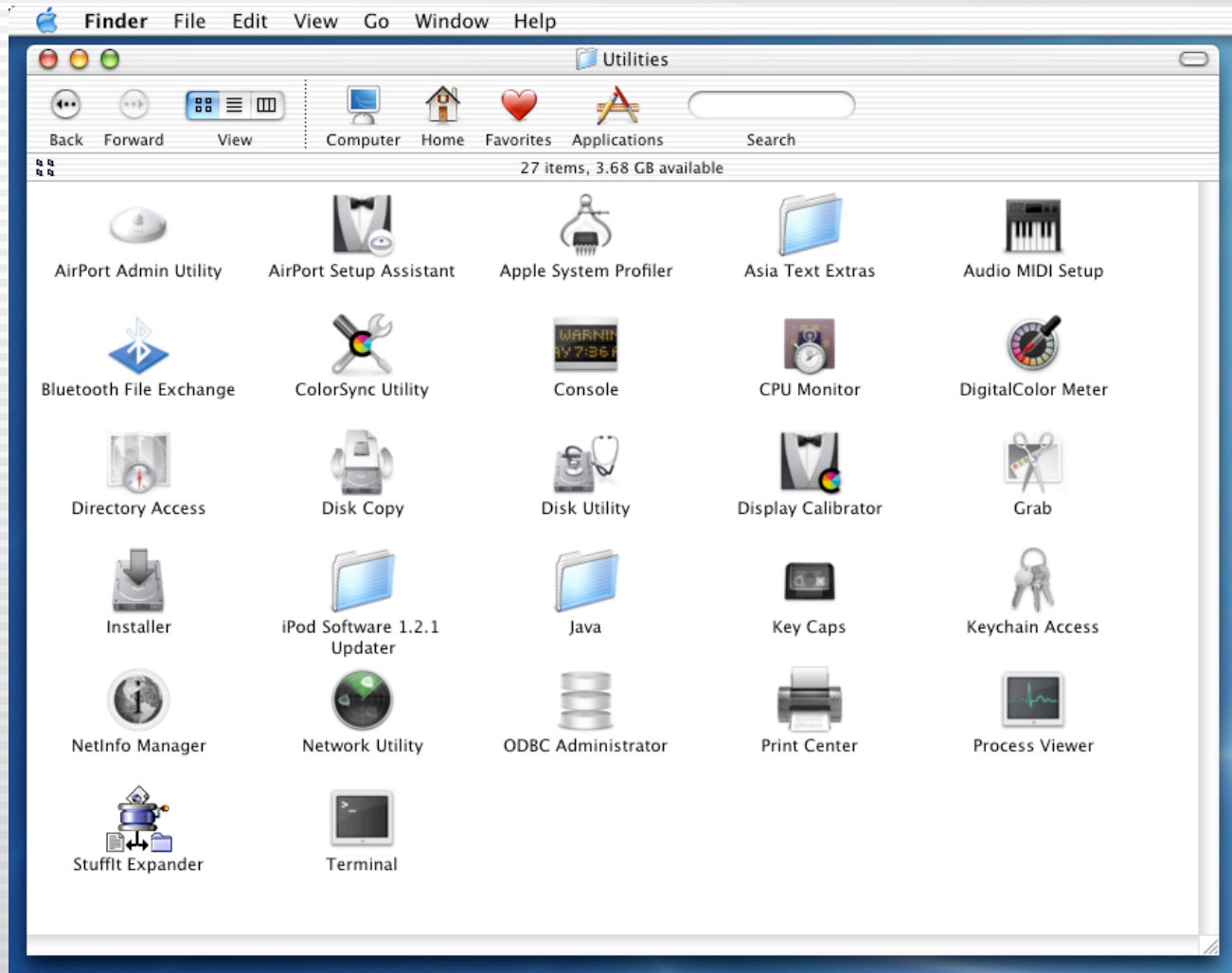
# Stickies



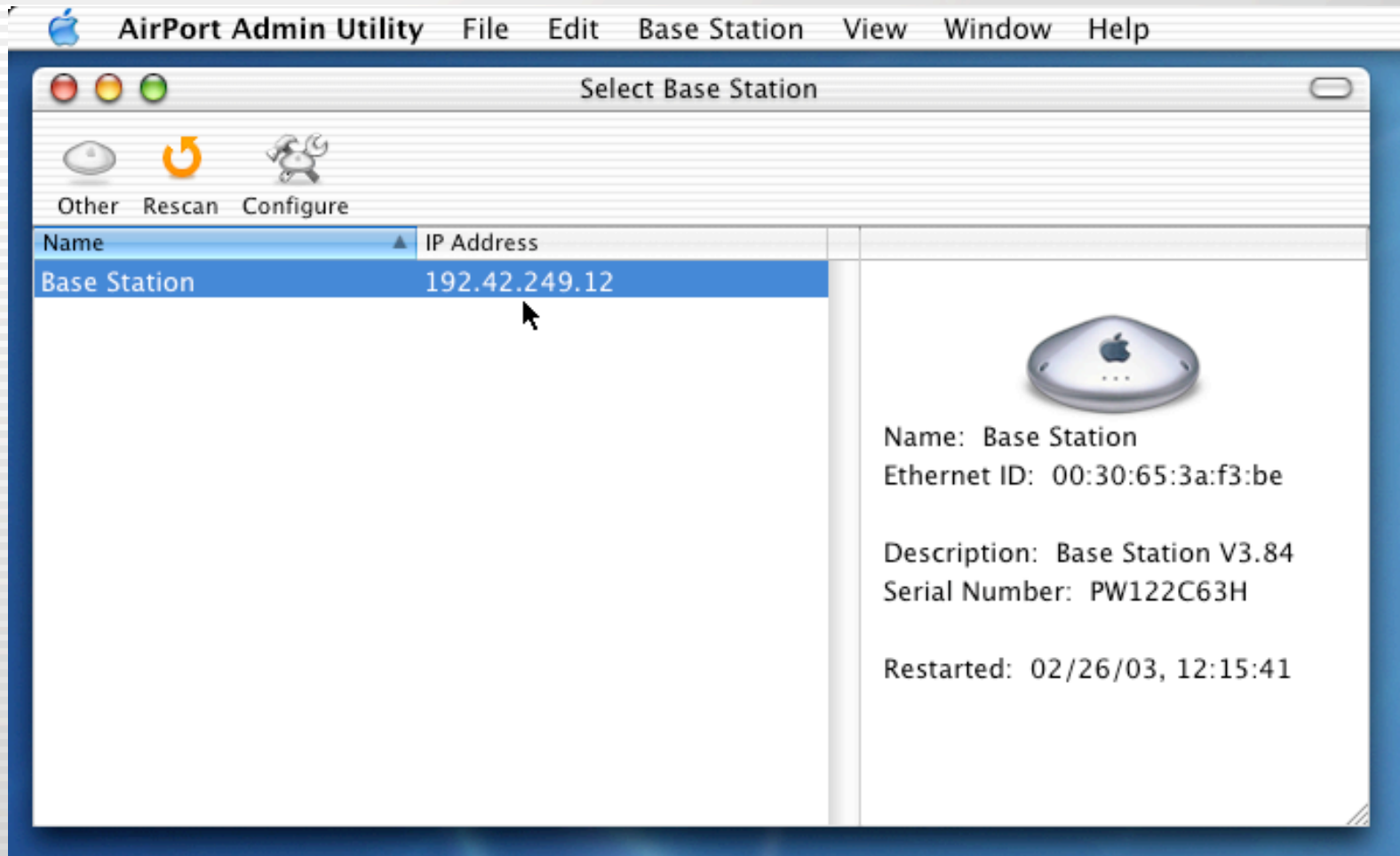
# TextEdit



# Applications:Utilities

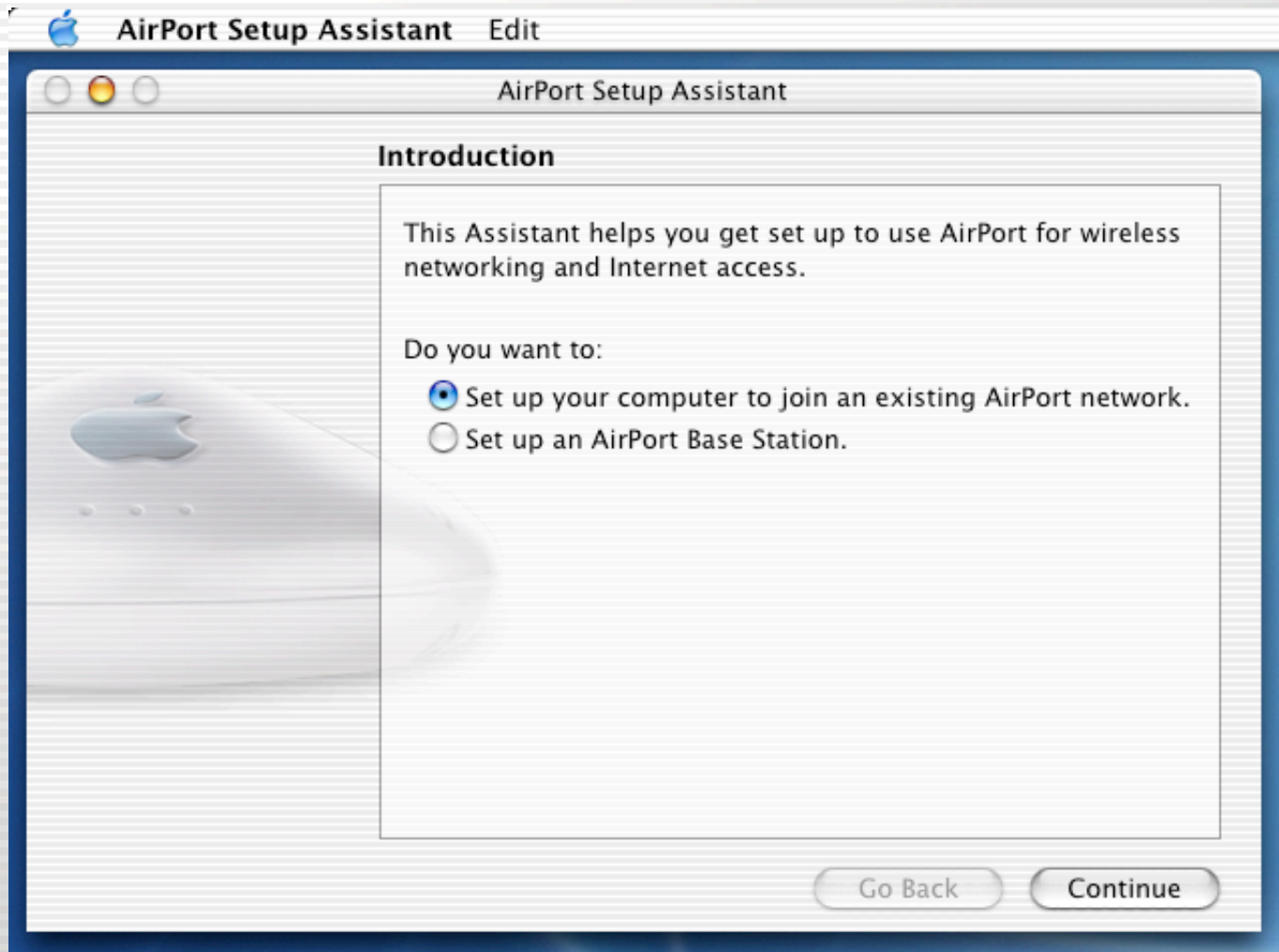


# AirPort Admin Utility

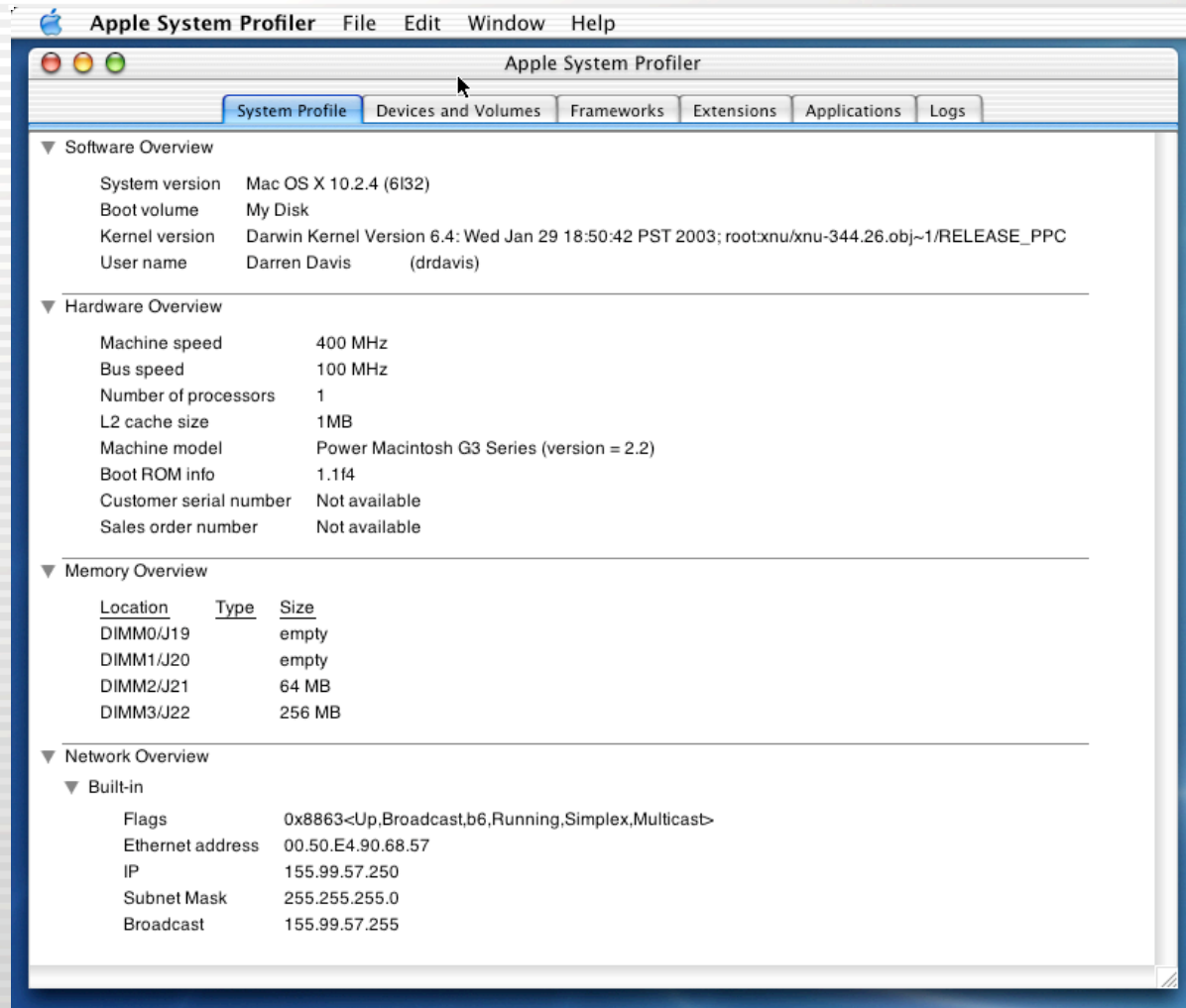




# AirPort Setup Assistant



# Apple System Profiler



# Apple System Profiler

The screenshot shows the Apple System Profiler application window. The menu bar includes Apple System Profiler, File, Edit, Window, and Help. The window title is "Apple System Profiler". The tabs at the top are System Profile, Devices and Volumes (selected), Frameworks, Extensions, Applications, and Logs.

**PCI**

J12	Card Type	display
	Card Name	ATY,Range128y
	Card Model	ATY,Range128
	Vendor ID	1002
	Device ID	5245
	ROM#	113-57407-204
	Revision	0
	Card (Video) Memory	16 MB

**USB Information**

USB Bus 0

Hub in Apple Extended USB Keyboard	Product ID	4098 (\$1002)
	Vendor	Mitsumi Electric
	Device Speed	Full
	Power (mA)	500

Apple Extended USB Keyboard  
Microsoft 5-Button Mouse with IntelliEye(TM)

**FireWire Information**

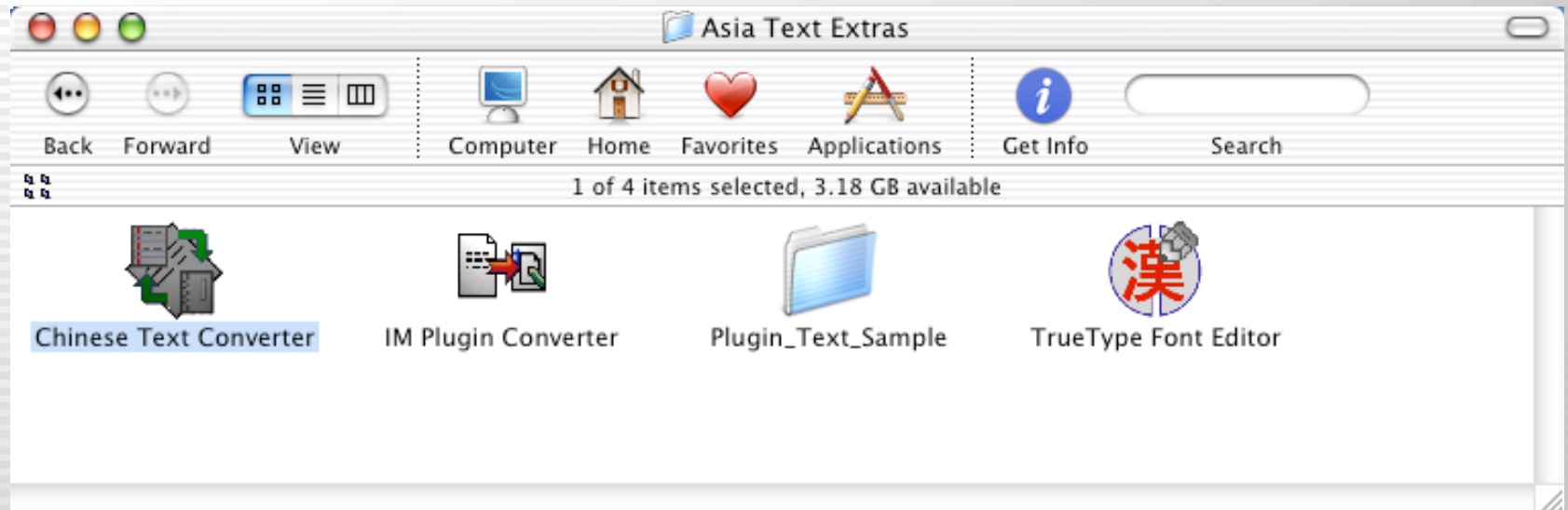
No FireWire devices found.

**Bus**

CD-ROM/DVD-ROM		
IOMEGA ZIP 100		
Hard Drive	Disk Size	18.64 GB (1K = 1024) 21 GB (1K = 1000)
	Unit Number	0
	ATA Device Type	ata
	Device Serial	WD-WMADL1548966
	Device Revision	05.03E05
	Device Model	WDC WD200BB-00DGA0
Hard Drive	My Disk	

Mac OS X	Volume Size	18.64 GB (1K = 1024) 21 GB (1K = 1000)
	Ejectable	No
	Writable	Yes

# Asia Text Extras



# Audio MIDI Setup

The screenshot shows the 'Audio MIDI Setup' window with the 'Audio Devices' tab selected. The window title bar includes the Apple logo, the text 'Audio MIDI Setup', and the window title 'MIDI Devices Window'. The main content area is divided into several sections:

- System Settings:** Includes dropdown menus for 'Default Input' (Built-in audio controller), 'Default Output' (Built-in audio controller), and 'System Output' (Built-in audio controller).
- Selected Audio Device:** A dropdown menu set to 'Built-in audio controller'.
- Volume and Mute Controls:** Sliders for 'Input Volume' and 'Output Volume', both set to 'n/a dB'. Below each slider are checkboxes for 'Play Through' and 'Device Mute'.
- Input Section:** Includes a dropdown for 'Input Source' (External microphone/Line) and a dropdown for 'Current Format' (2Ch-44100.0 Hz-16bit).
- Output Section:** Includes a dropdown for 'Current Format' (2Ch-44100.0 Hz-16bit).
- Channel Controls:** Two tables, one for the Input Section and one for the Output Section. Each table has columns for Channel, dB, Value, Mute, and PlayThru. Channel 1 and 2 are visible in both.
- Property Lists:** Two tables at the bottom, one for the Input Section and one for the Output Section, listing properties like Format, Channels, and Sample Rate.

Channel	dB	Value	Mute	PlayThru
1	7.5	0.33	<input type="checkbox"/>	<input type="checkbox"/>
2	7.5	0.33	<input type="checkbox"/>	<input type="checkbox"/>

Channel	dB	Value	Mute
1	0	1.00	<input type="checkbox"/>
2	0	1.00	<input type="checkbox"/>

Property	Value
Format	16-bit Linear PCM
Channels	2
Sample Rate (Hz)	44100

Property	Value
Format	16-bit Linear PCM
Channels	2
Sample Rate (Hz)	44100

# Bluetooth Applications

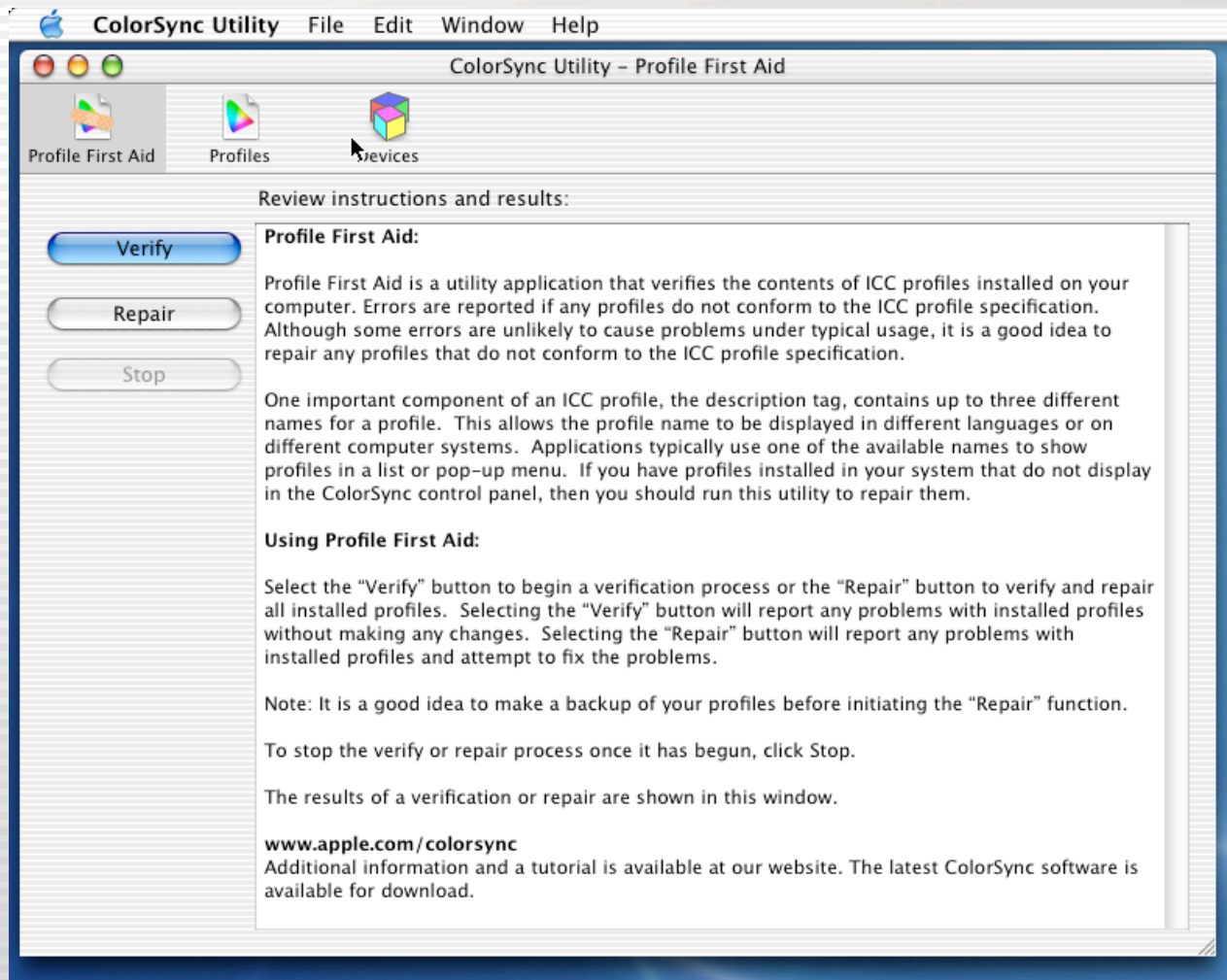


Bluetooth Wireless Technology

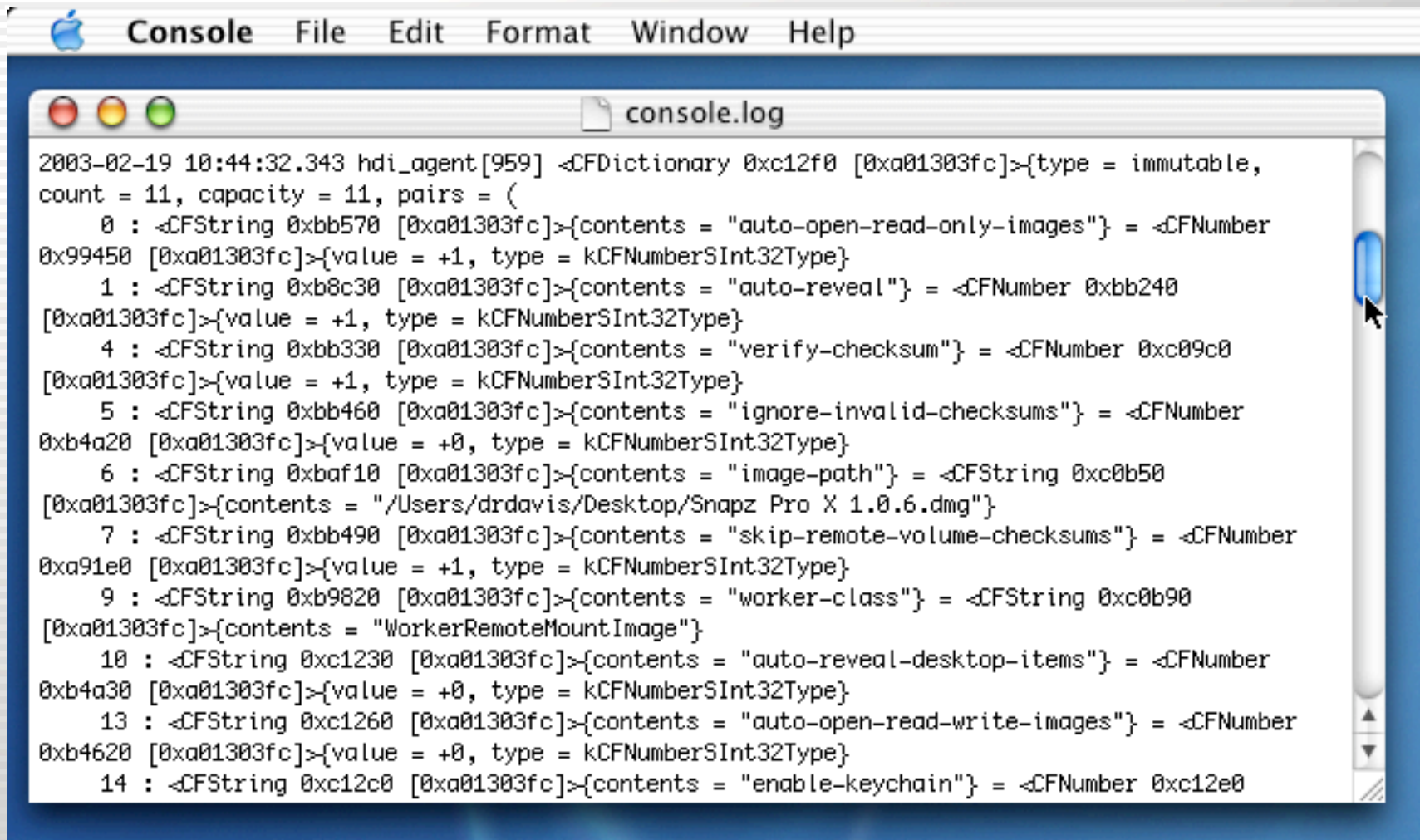
<http://www.bluetooth.com/>

<http://www.apple.com/bluetooth/>

# ColorSync Utility



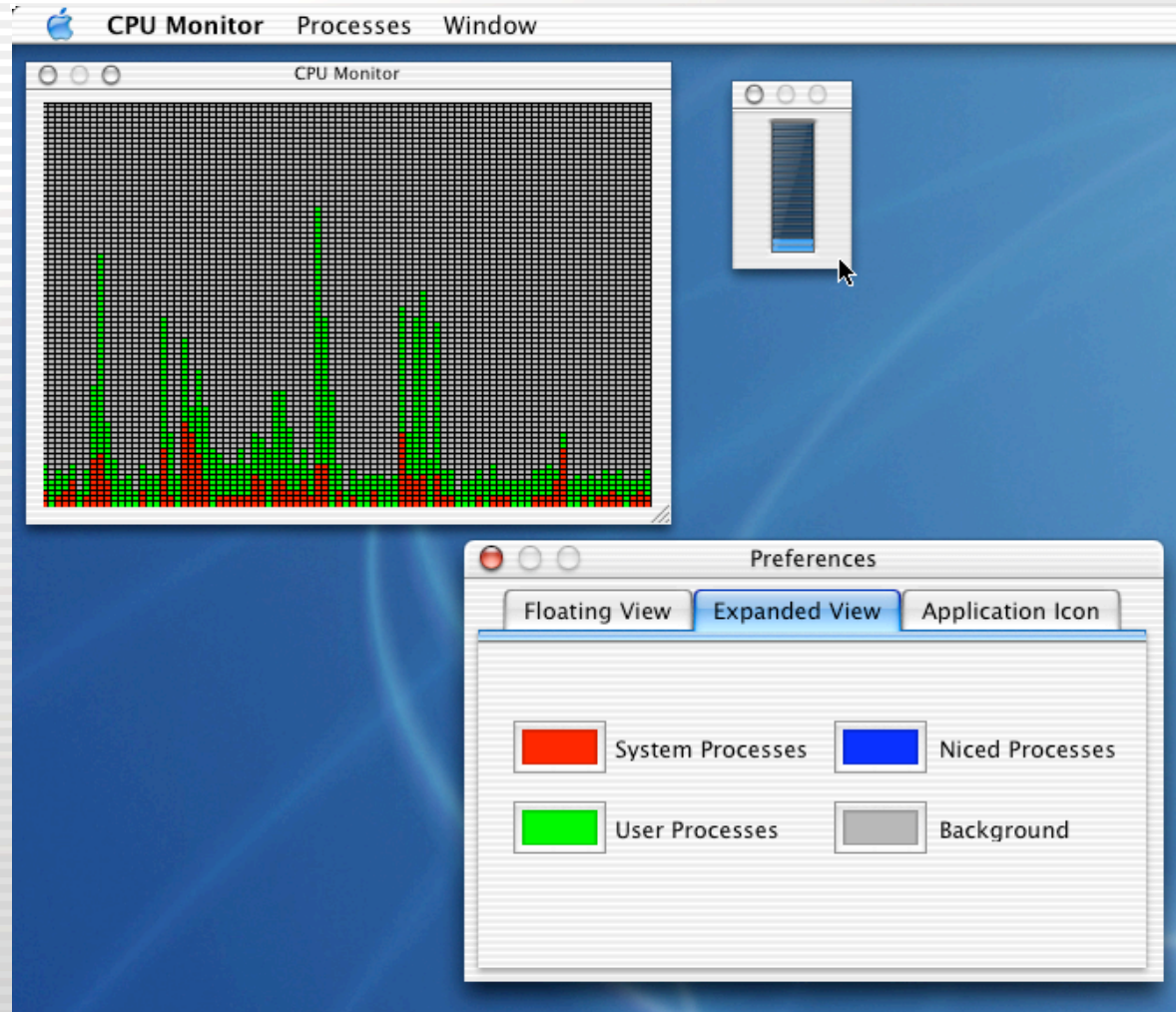
# Console



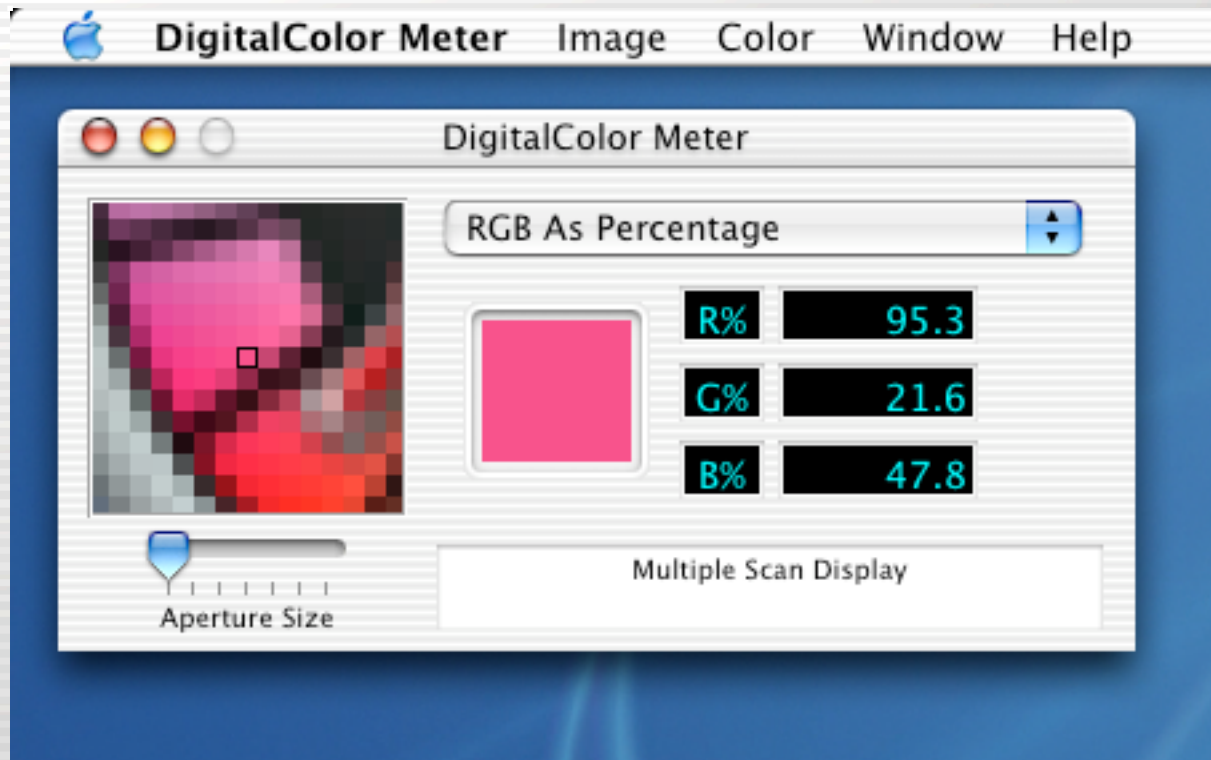
```
2003-02-19 10:44:32.343 hdi_agent[959] <CFDictionary 0xc12f0 [0xa01303fc]>{type = immutable,
count = 11, capacity = 11, pairs = (
    0 : <CFString 0xbb570 [0xa01303fc]>{contents = "auto-open-read-only-images"} = <CFNumber
0x99450 [0xa01303fc]>{value = +1, type = kCFNumberSInt32Type}
    1 : <CFString 0xb8c30 [0xa01303fc]>{contents = "auto-reveal"} = <CFNumber 0xbb240
[0xa01303fc]>{value = +1, type = kCFNumberSInt32Type}
    4 : <CFString 0xbb330 [0xa01303fc]>{contents = "verify-checksum"} = <CFNumber 0xc09c0
[0xa01303fc]>{value = +1, type = kCFNumberSInt32Type}
    5 : <CFString 0xbb460 [0xa01303fc]>{contents = "ignore-invalid-checksums"} = <CFNumber
0xb4a20 [0xa01303fc]>{value = +0, type = kCFNumberSInt32Type}
    6 : <CFString 0xbaf10 [0xa01303fc]>{contents = "image-path"} = <CFString 0xc0b50
[0xa01303fc]>{contents = "/Users/drDavis/Desktop/Snapz Pro X 1.0.6.dmg"}
    7 : <CFString 0xbb490 [0xa01303fc]>{contents = "skip-remote-volume-checksums"} = <CFNumber
0xa91e0 [0xa01303fc]>{value = +1, type = kCFNumberSInt32Type}
    9 : <CFString 0xb9820 [0xa01303fc]>{contents = "worker-class"} = <CFString 0xc0b90
[0xa01303fc]>{contents = "WorkerRemoteMountImage"}
    10 : <CFString 0xc1230 [0xa01303fc]>{contents = "auto-reveal-desktop-items"} = <CFNumber
0xb4a30 [0xa01303fc]>{value = +0, type = kCFNumberSInt32Type}
    13 : <CFString 0xc1260 [0xa01303fc]>{contents = "auto-open-read-write-images"} = <CFNumber
0xb4620 [0xa01303fc]>{value = +0, type = kCFNumberSInt32Type}
    14 : <CFString 0xc12c0 [0xa01303fc]>{contents = "enable-keychain"} = <CFNumber 0xc12e0
```



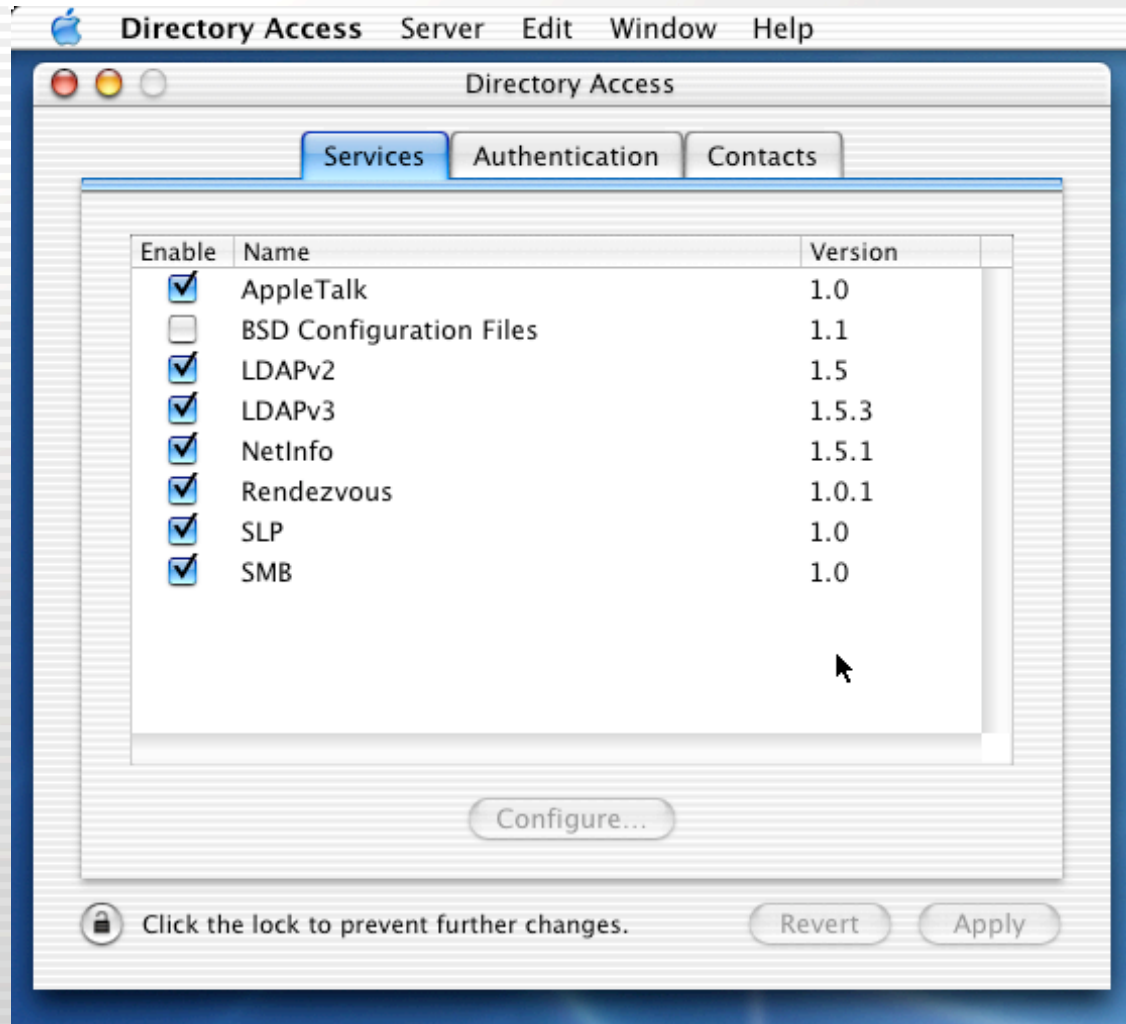
# CPU Monitor



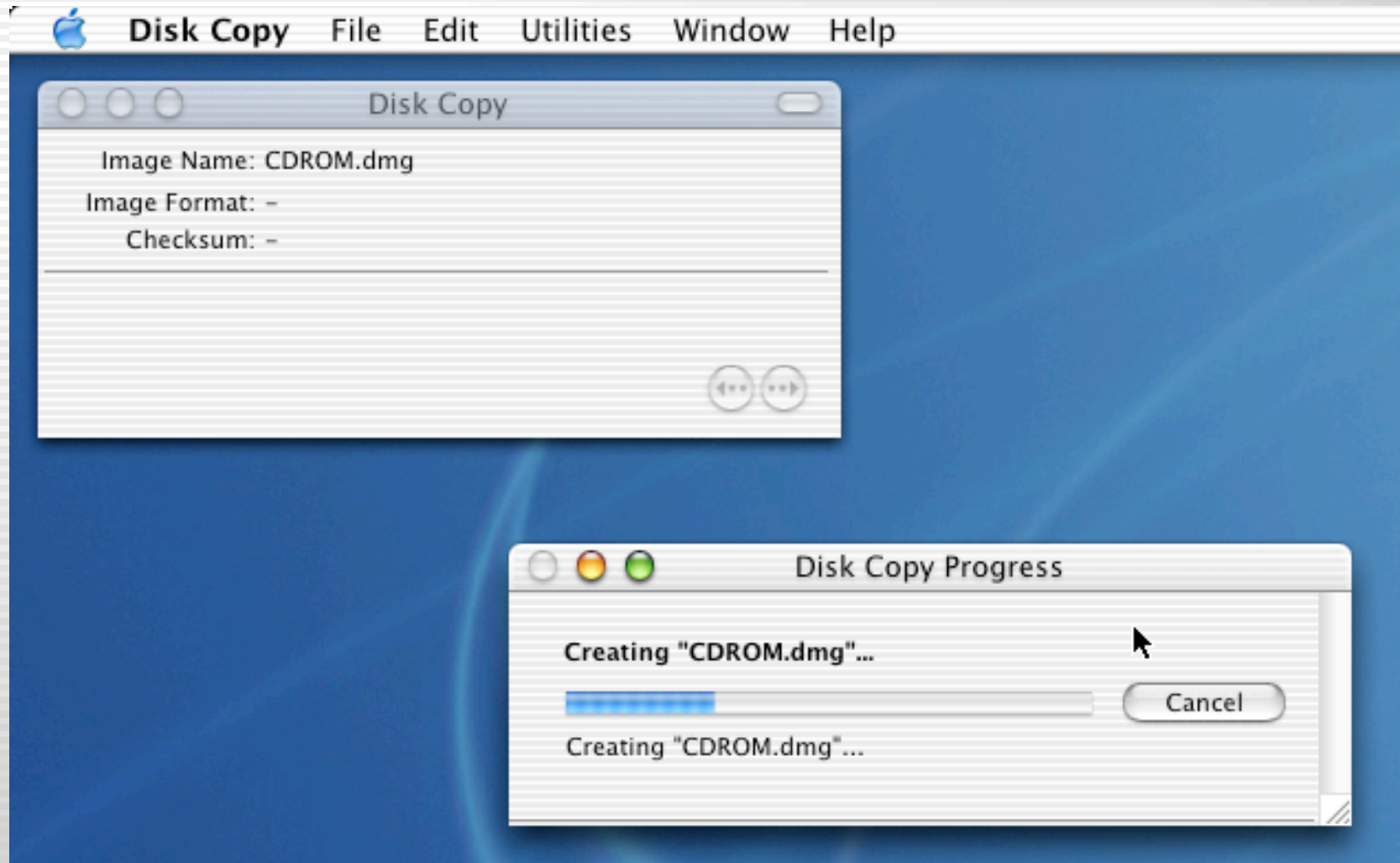
# DigitalColor Meter



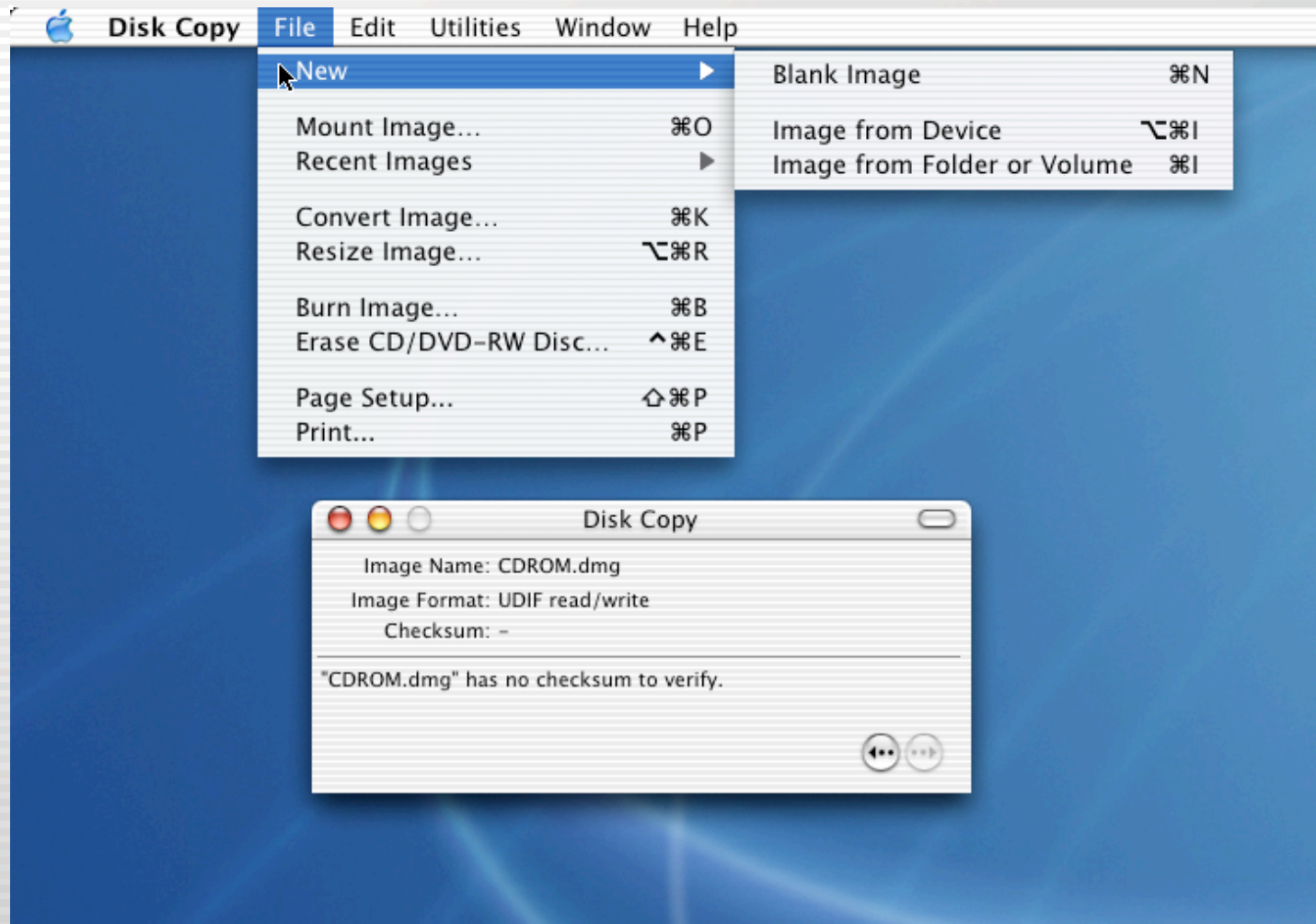
# Directory Access



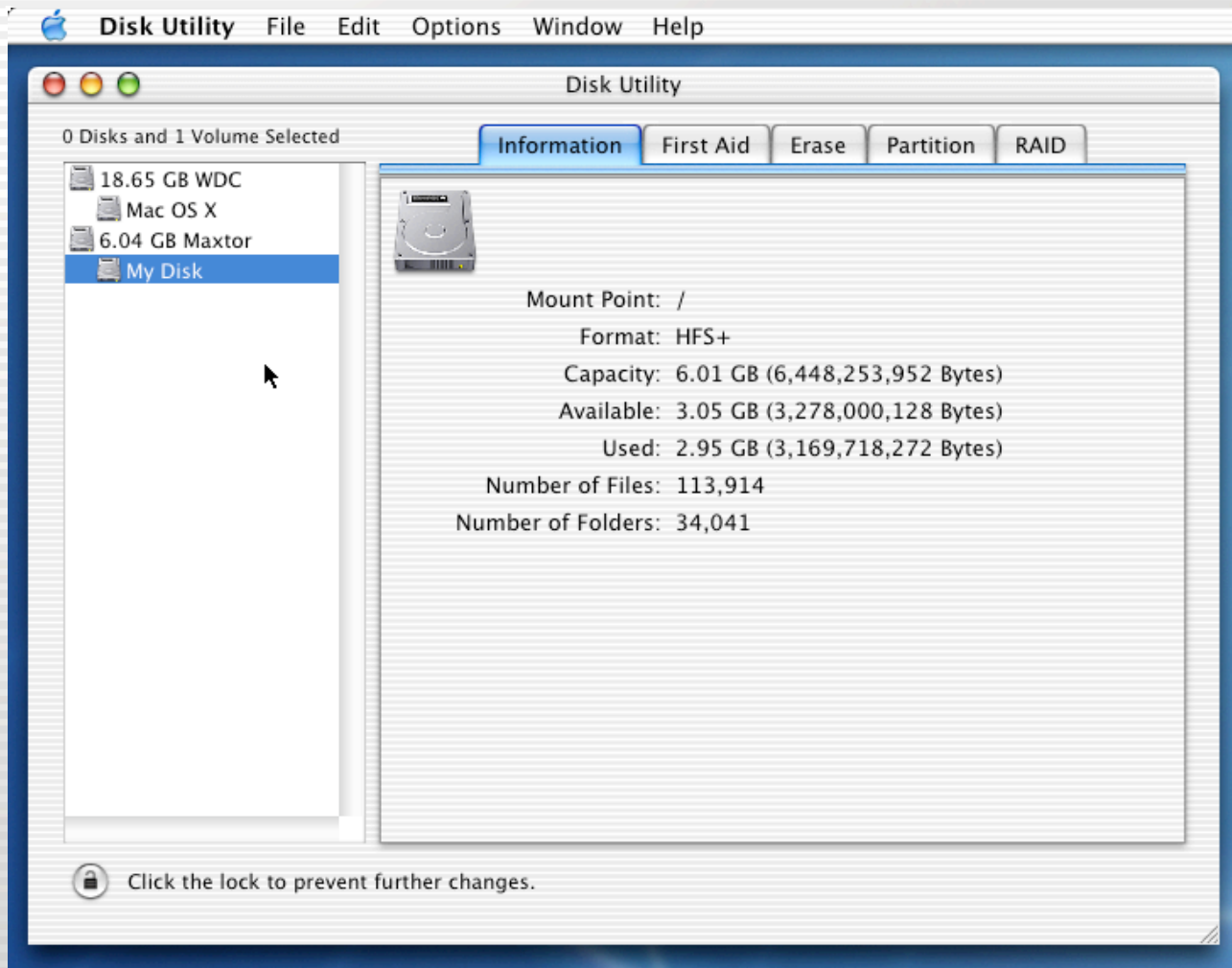
# Disk Copy



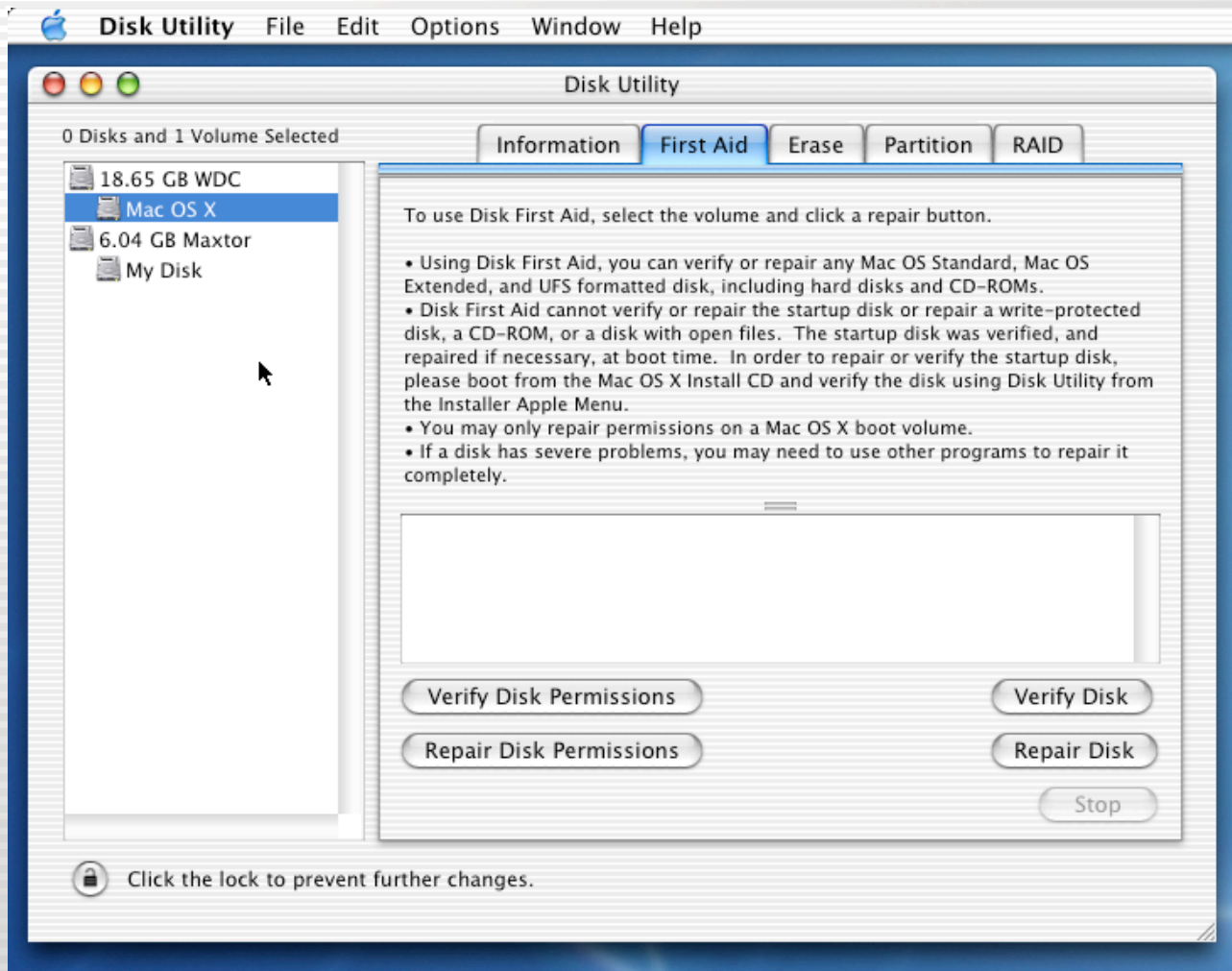
# Disk Copy



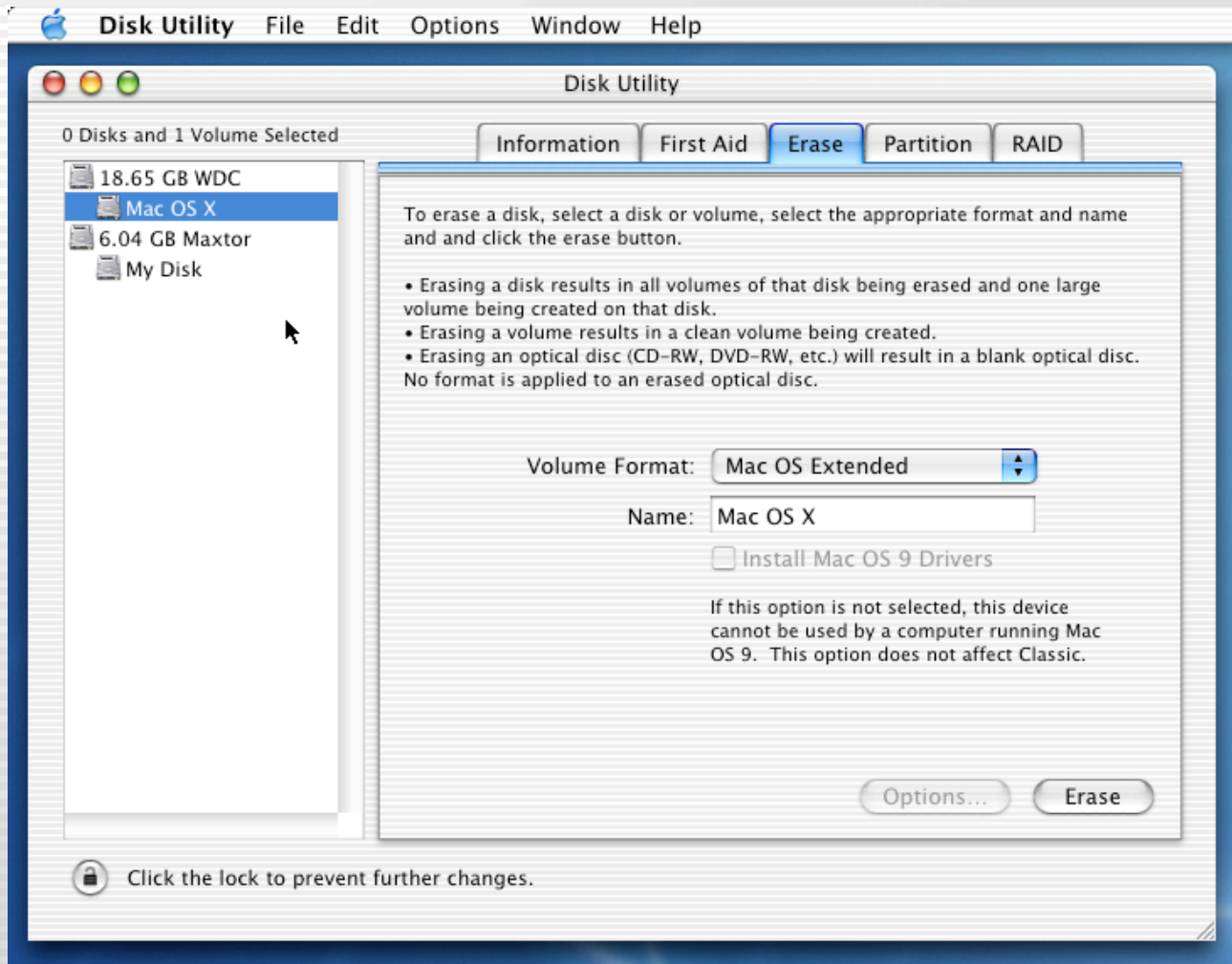
# Disk Utility



# Disk Utility

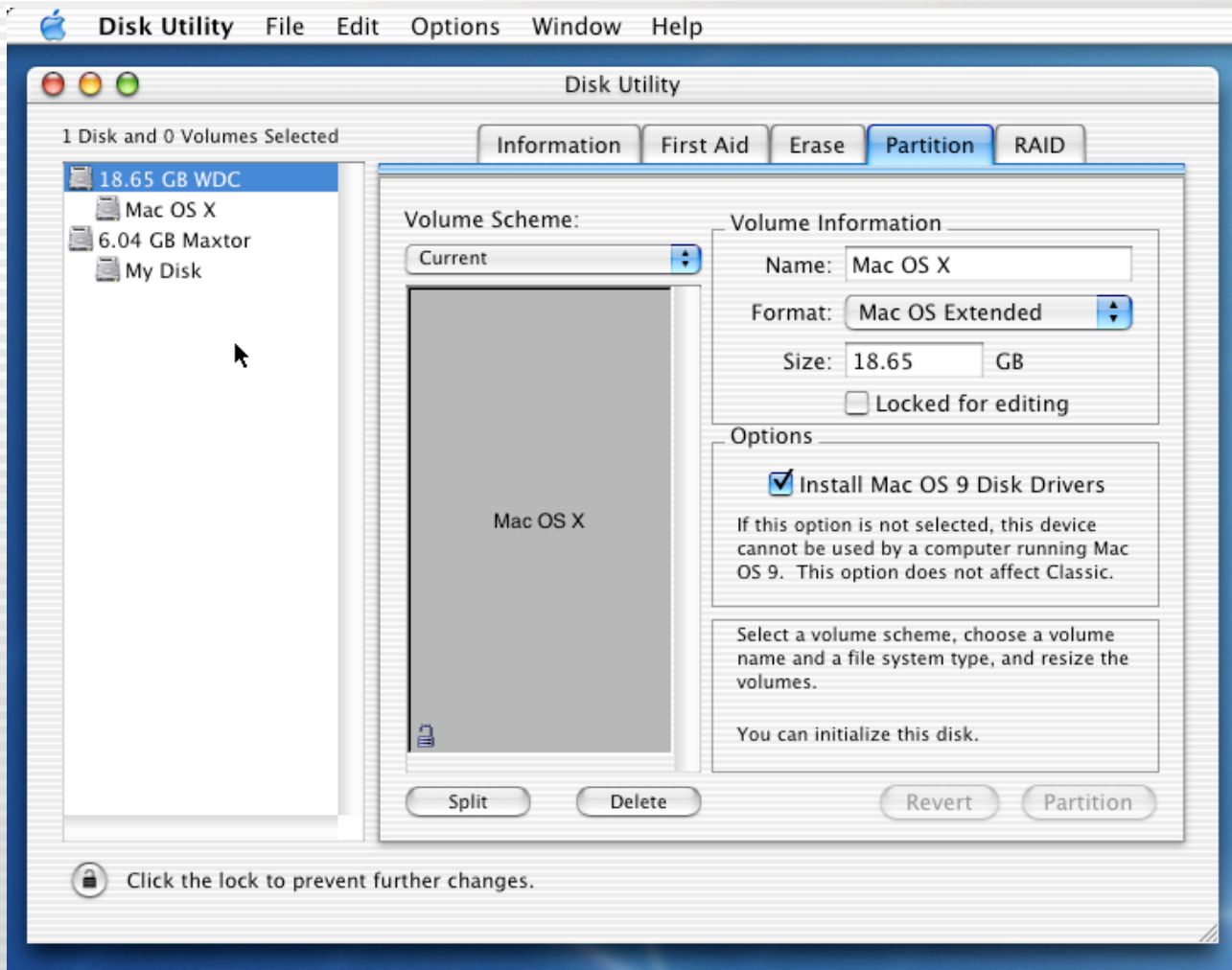


# Disk Utility

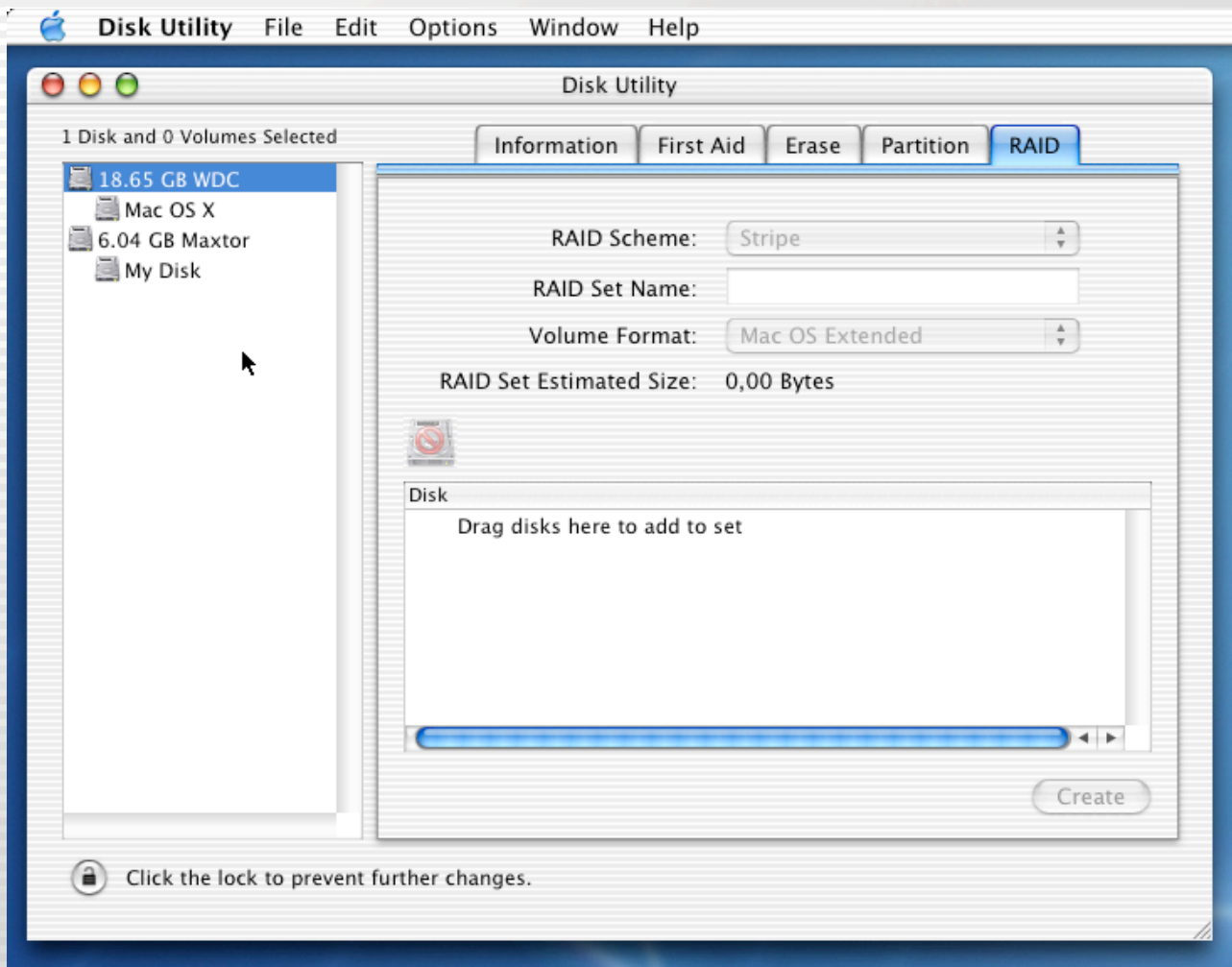




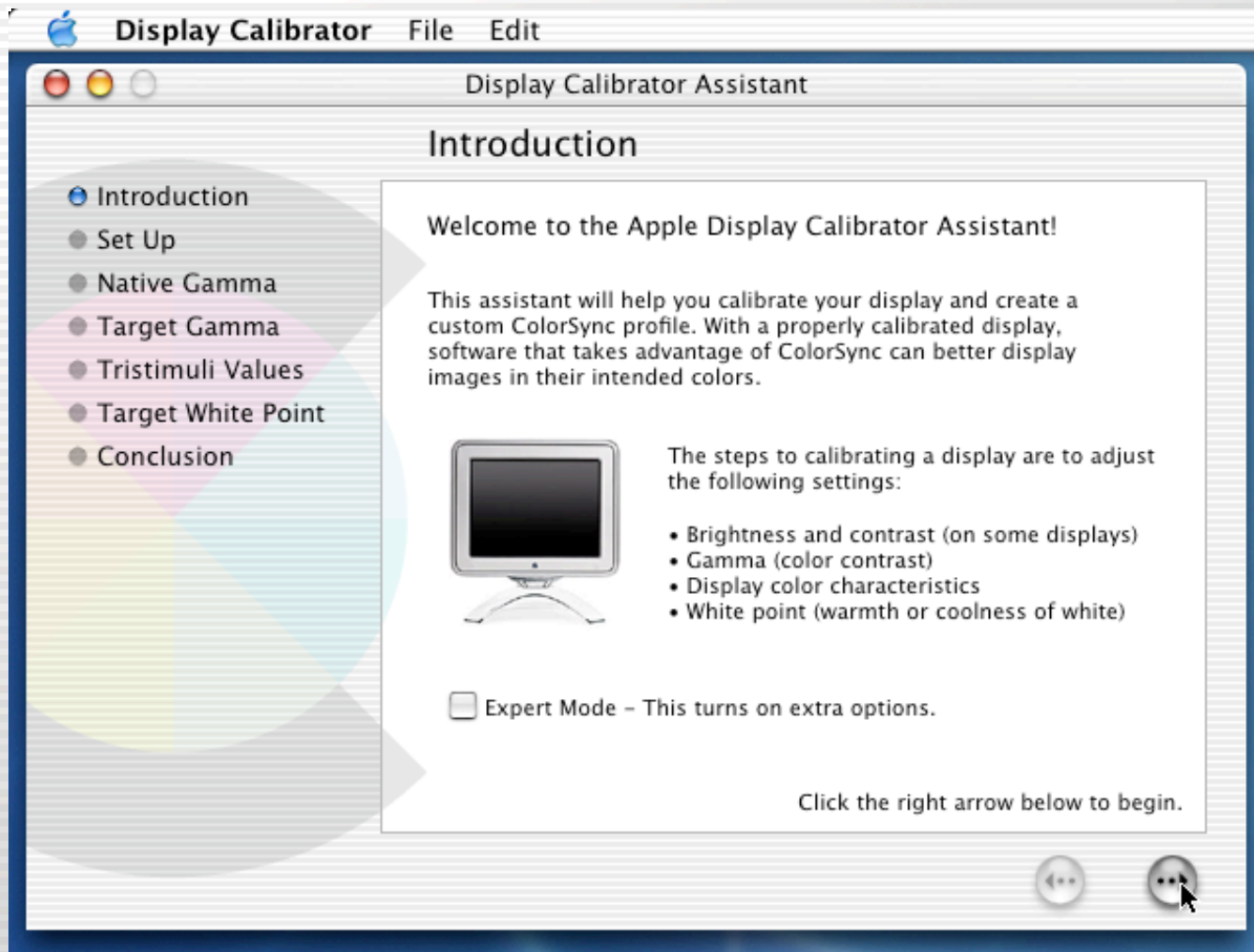
# Disk Utility



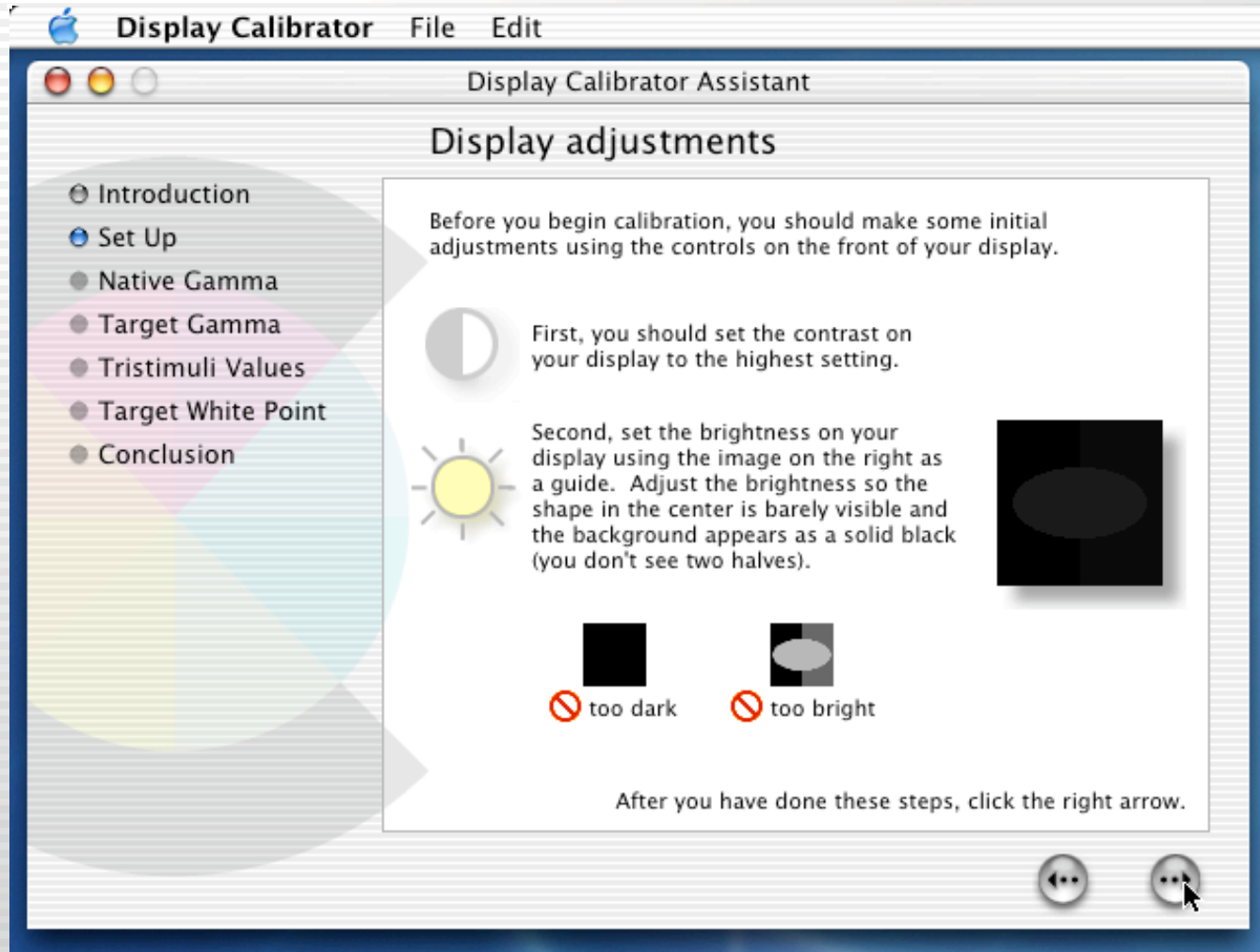
# Disk Utility



# Display Calibrator



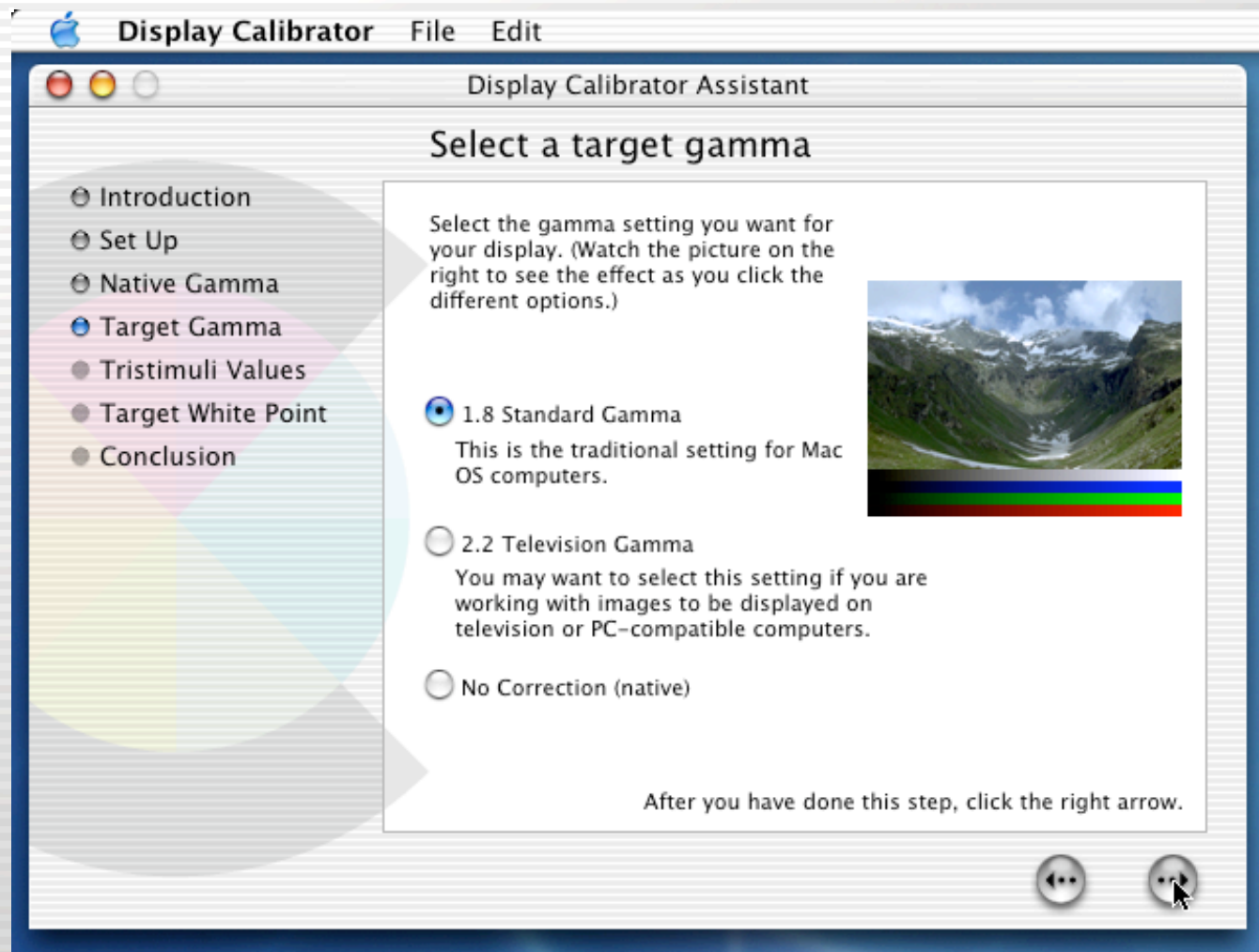
# Display Calibrator



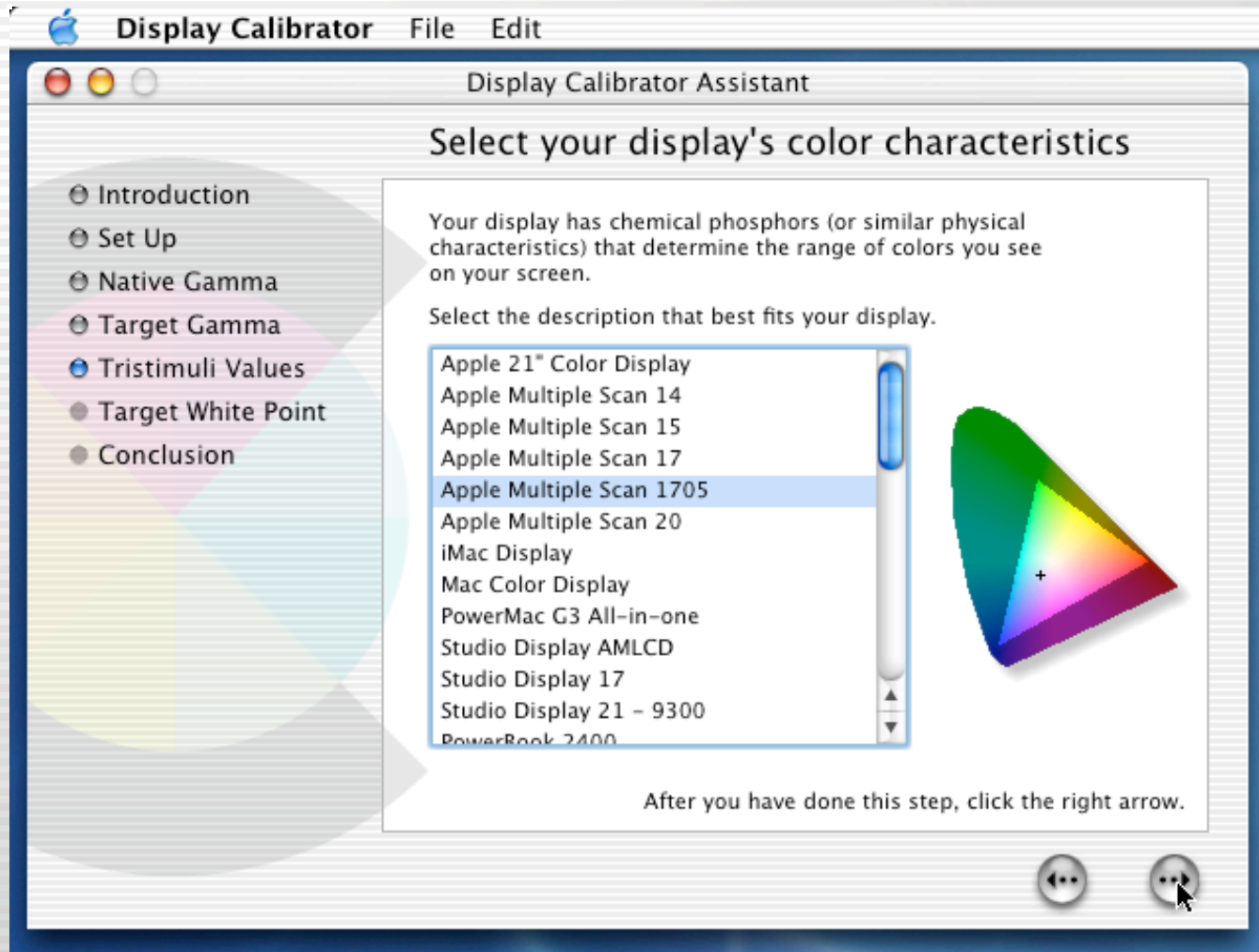
# Display Calibrator

The screenshot shows the 'Display Calibrator Assistant' window. The title bar includes the Apple logo, the text 'Display Calibrator', and menu options 'File' and 'Edit'. The window title is 'Display Calibrator Assistant'. On the left is a sidebar with a list of steps: Introduction, Set Up, Native Gamma (selected), Target Gamma, Tristimuli Values, Target White Point, and Conclusion. The main content area is titled 'Determine your display's current gamma'. It contains the following text: 'Your display's actual gamma is affected by contrast and brightness settings and other characteristics of your display.' and 'Move the slider until the grey shape in the middle blends in with the background as much as possible. It may help to squint or step back from the display.' Below the text is a square image of an Apple logo on a background of horizontal lines. Underneath the image is a horizontal slider with a blue knob. The slider has tick marks and labels '1.0' on the left and '3.5' on the right. At the bottom of the main content area, it says 'After you have done this step, click the right arrow.' In the bottom right corner of the window, there are two circular navigation buttons: one with a left arrow and one with a right arrow.

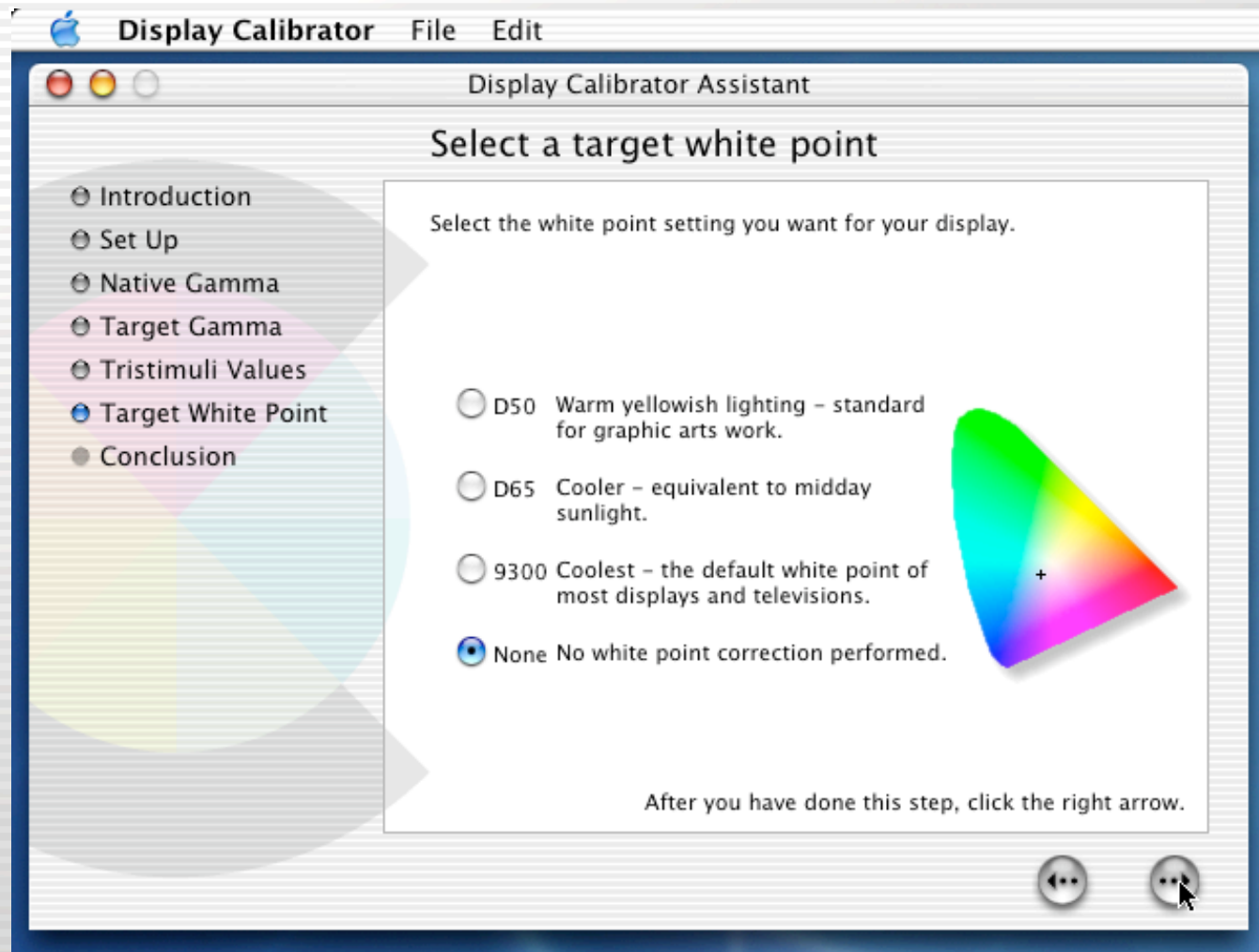
# Display Calibrator



# Display Calibrator

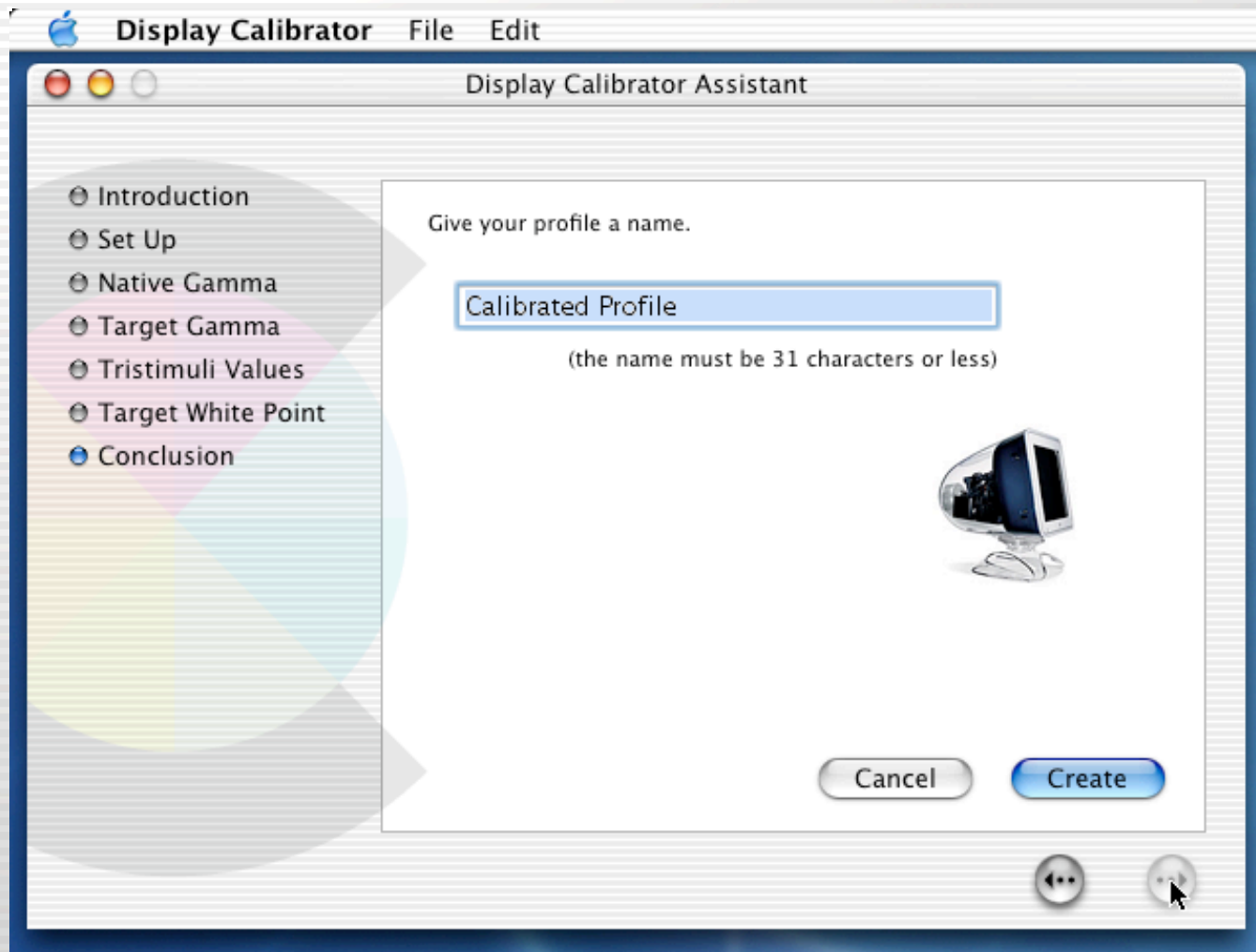


# Display Calibrator

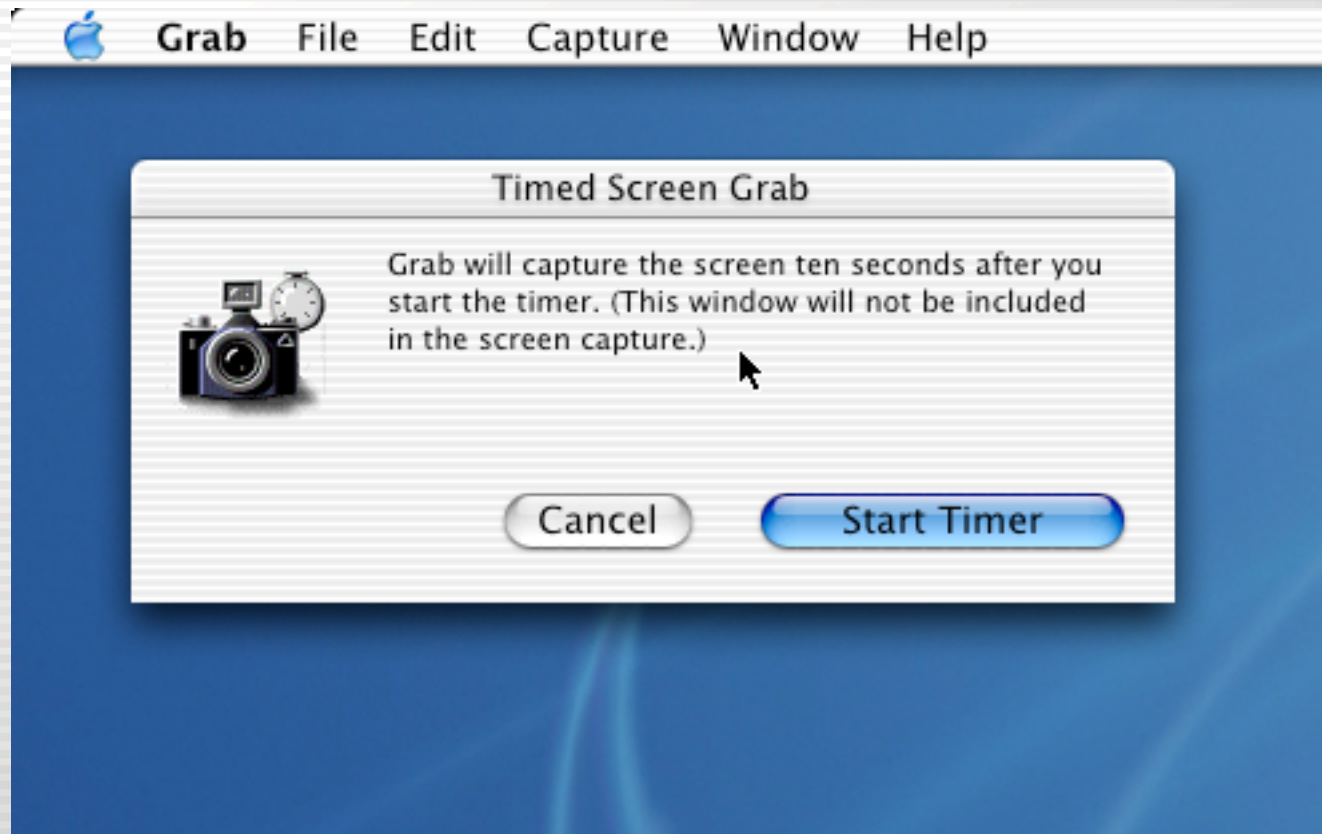




# Display Calibrator



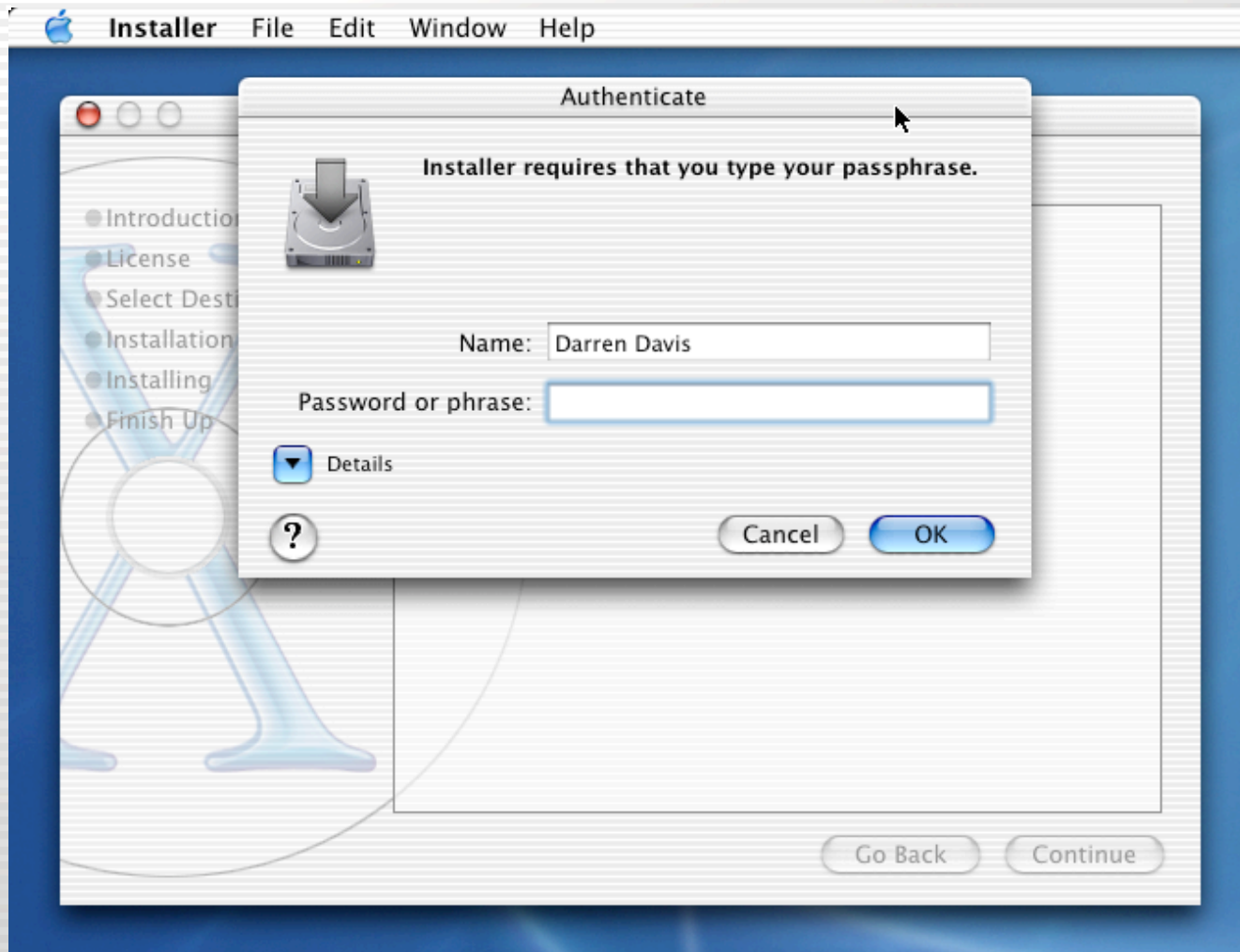
# Grab



# Installer



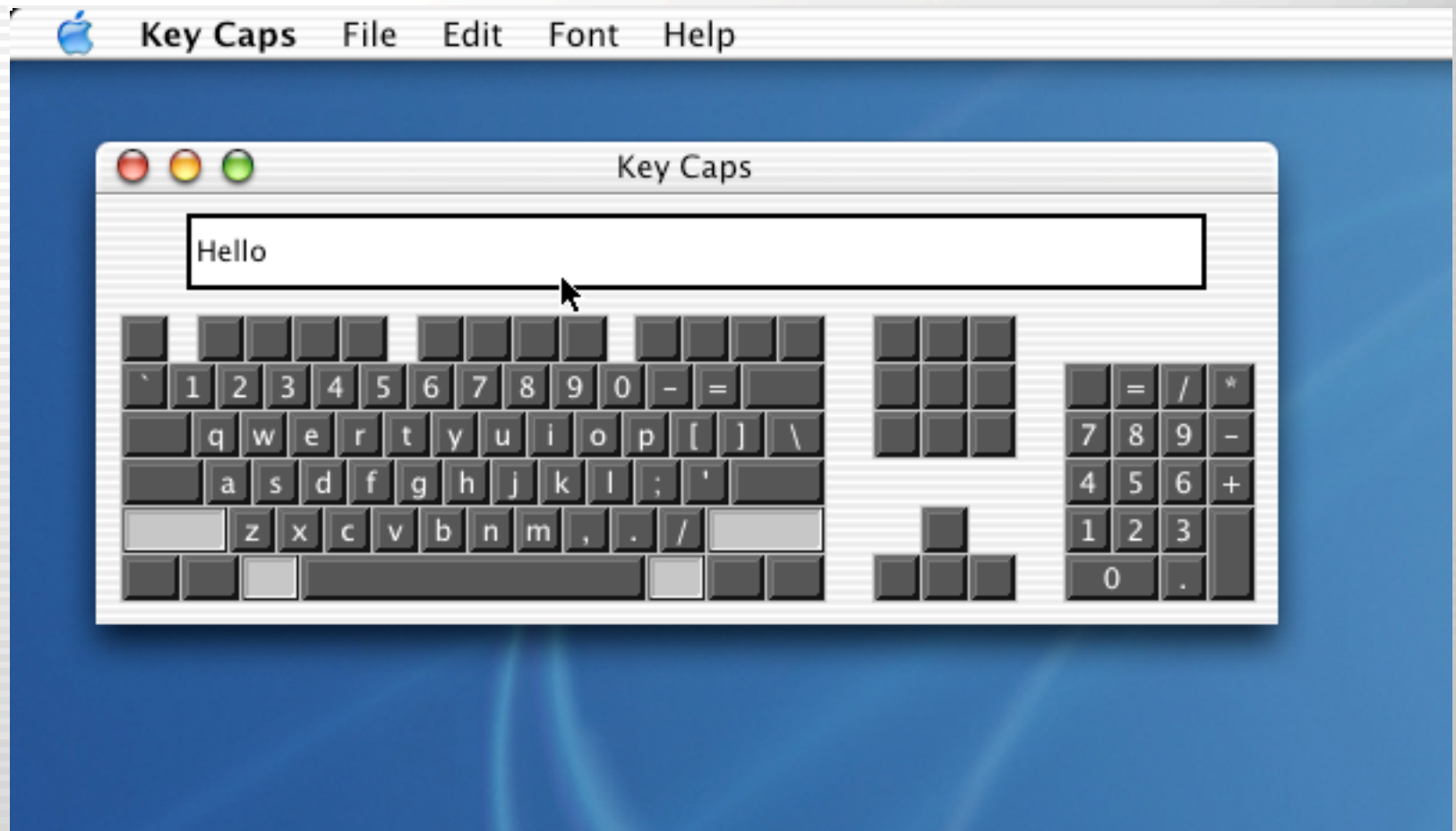
# Installer



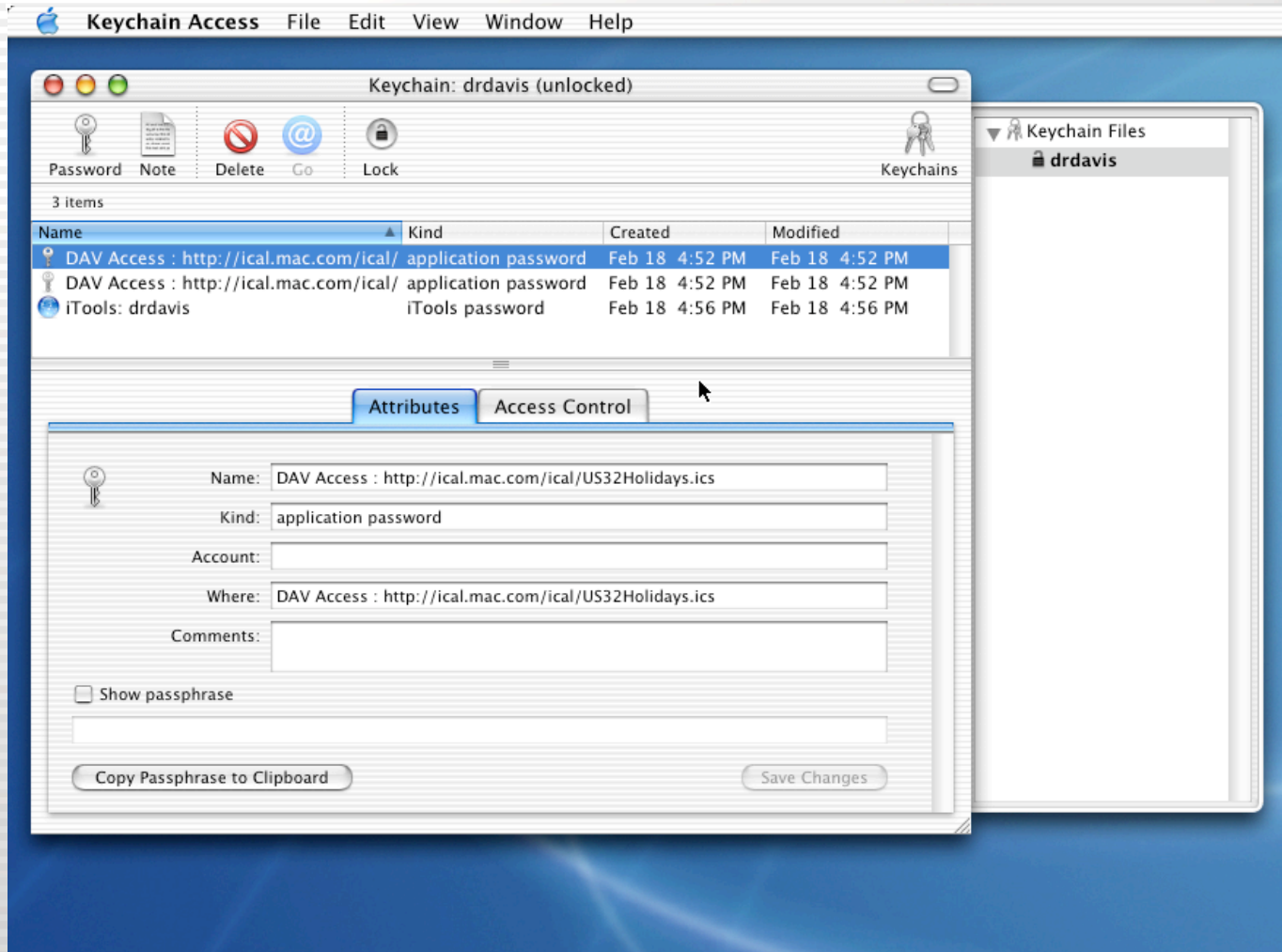
# Installer



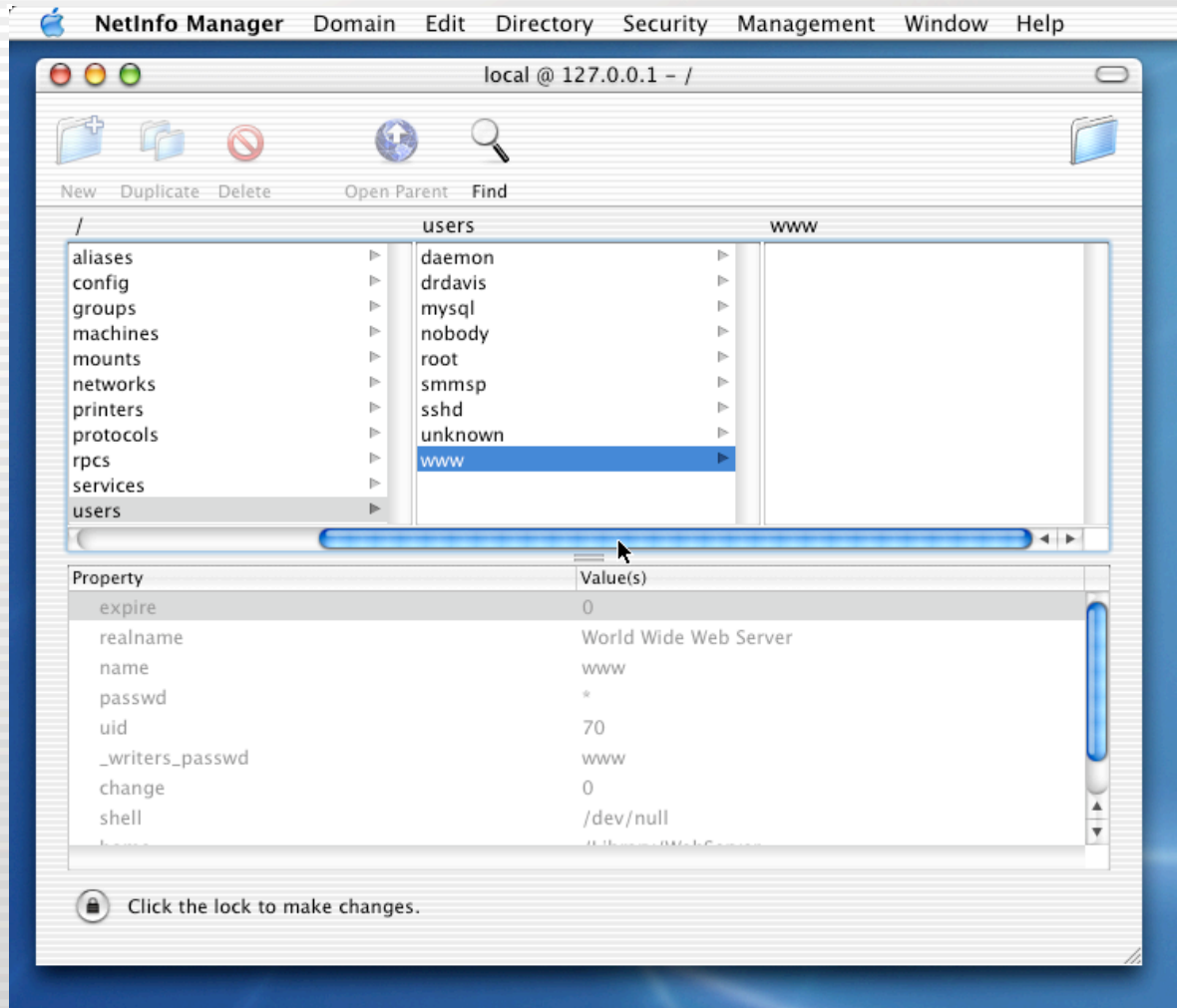
# Key Caps



# Keychain Access

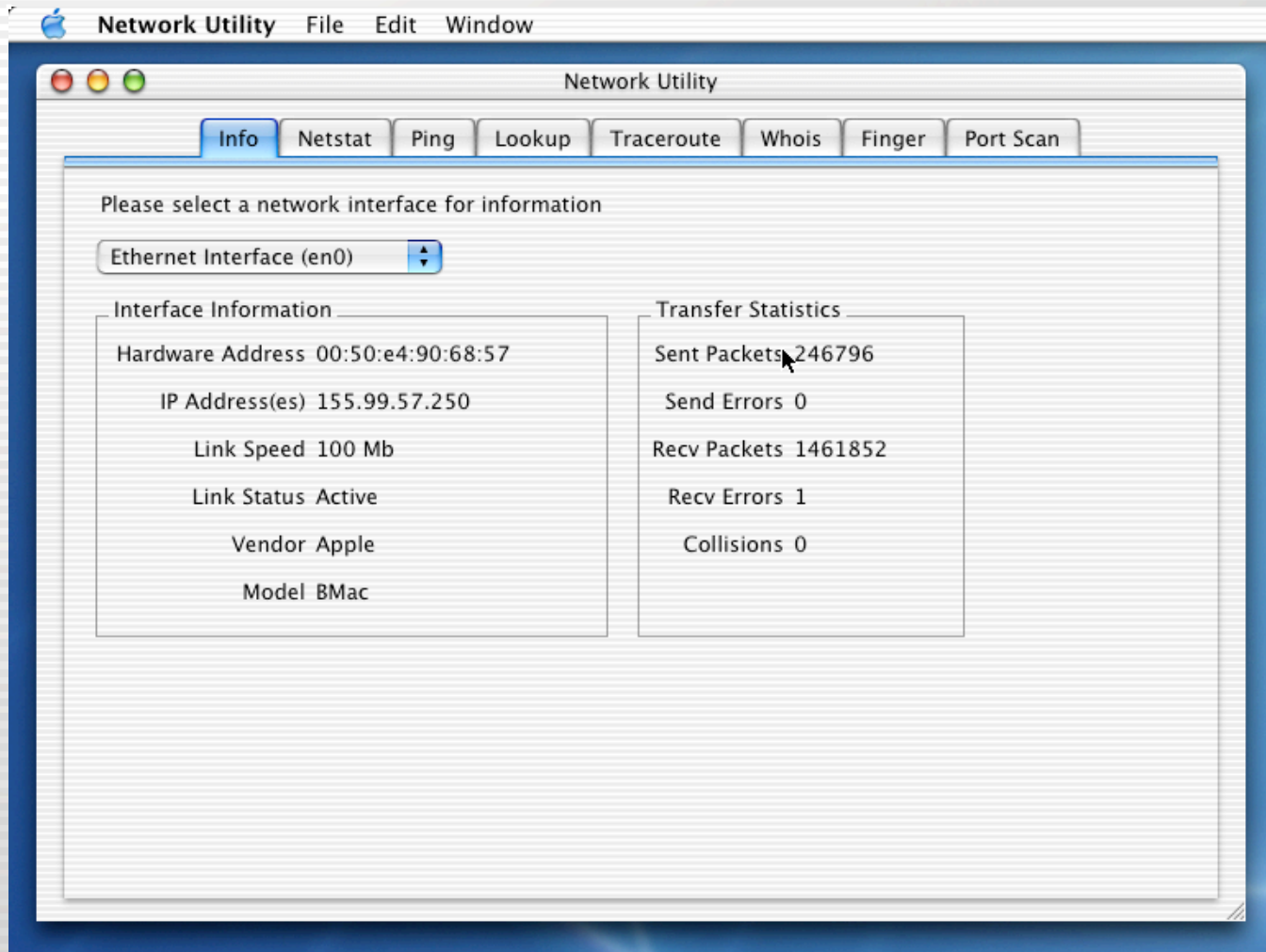


# Netinfo Manager

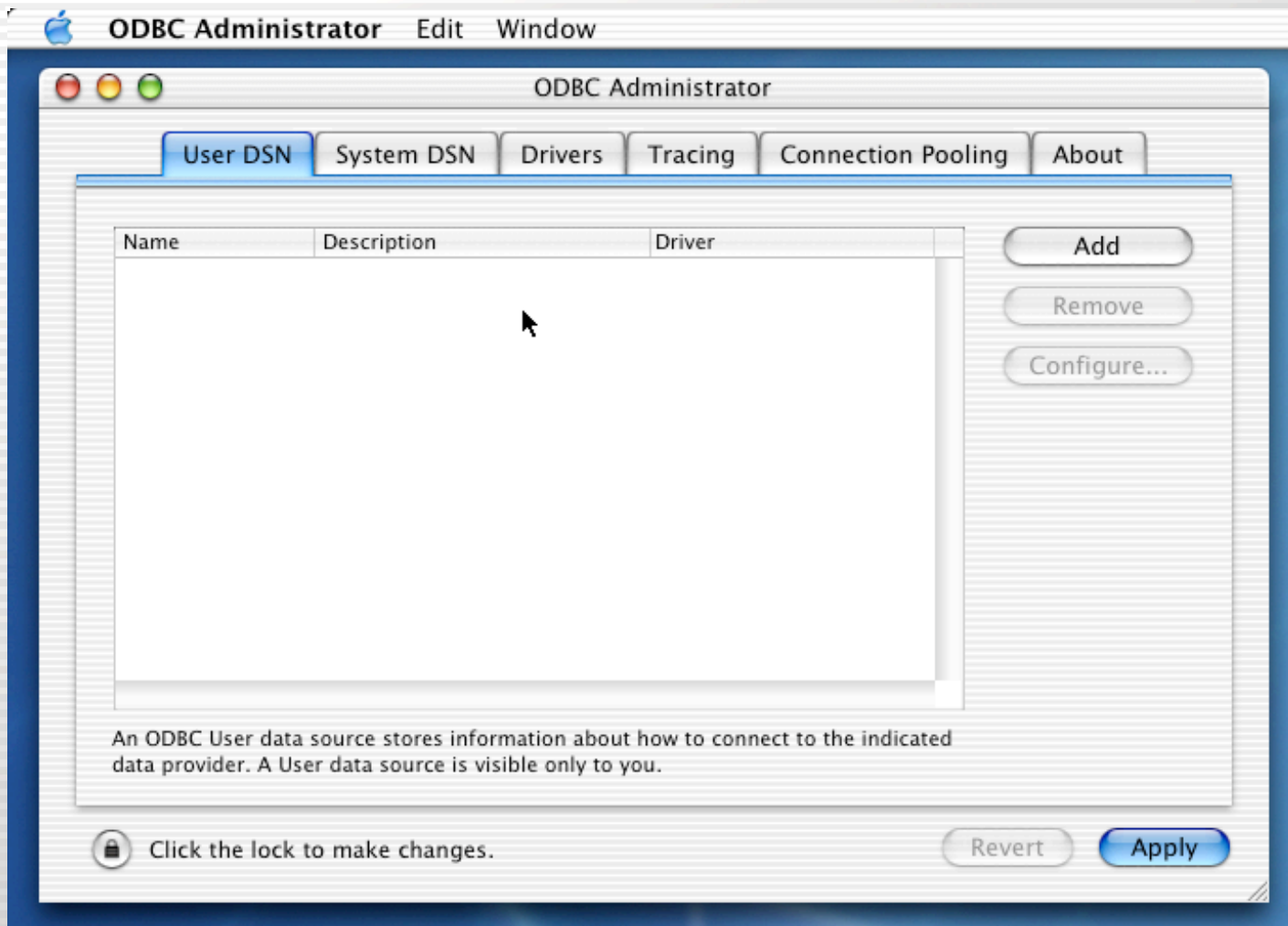




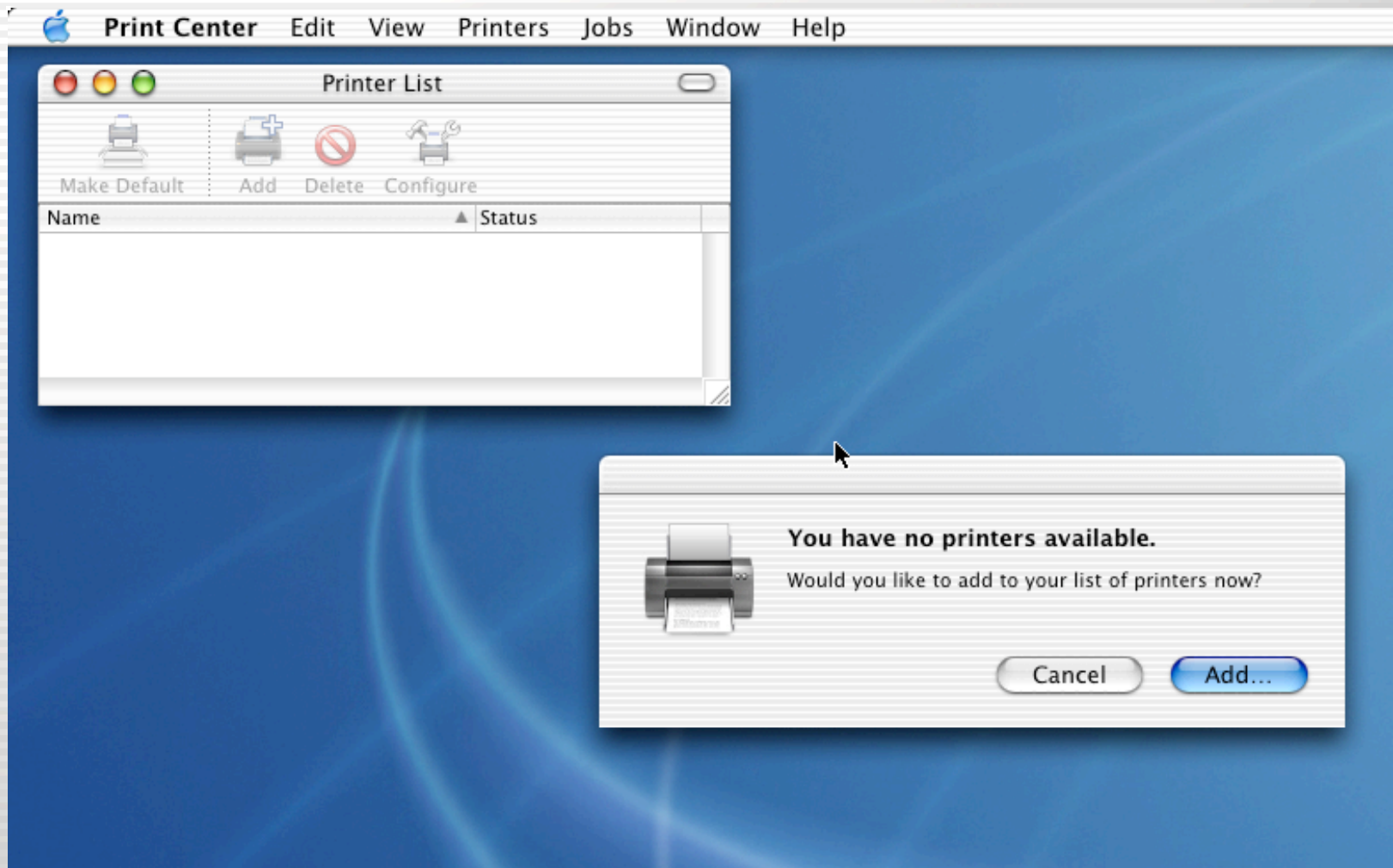
# Network Utility



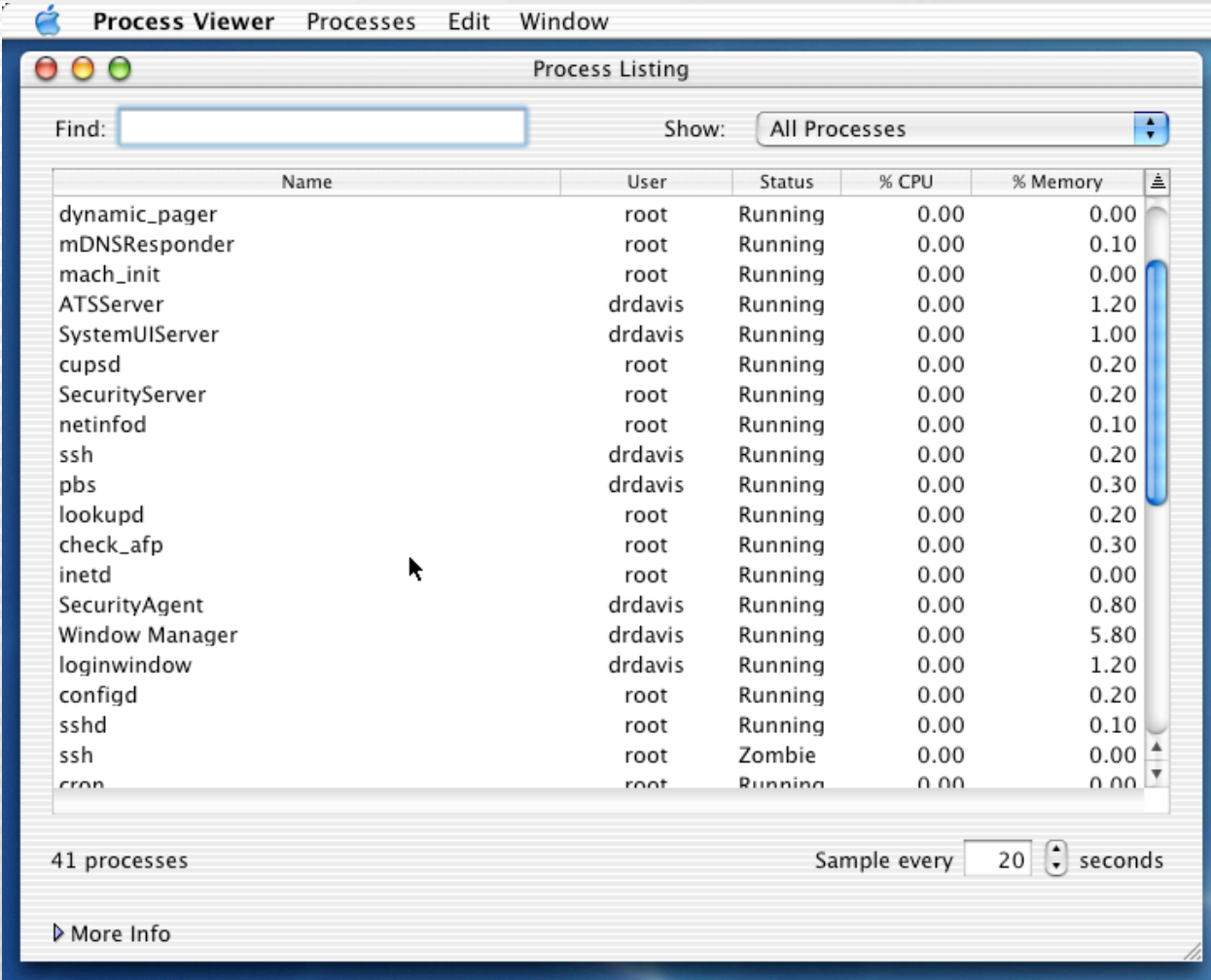
# ODBC Administrator



# Print Center



# Process Viewer



The screenshot shows the Process Viewer application window. The title bar reads "Process Viewer" and the menu bar includes "Processes", "Edit", and "Window". The main window is titled "Process Listing" and contains a search field labeled "Find:" and a dropdown menu labeled "Show:" set to "All Processes". Below this is a table with columns for Name, User, Status, % CPU, and % Memory. The table lists 41 processes, with the following visible entries:

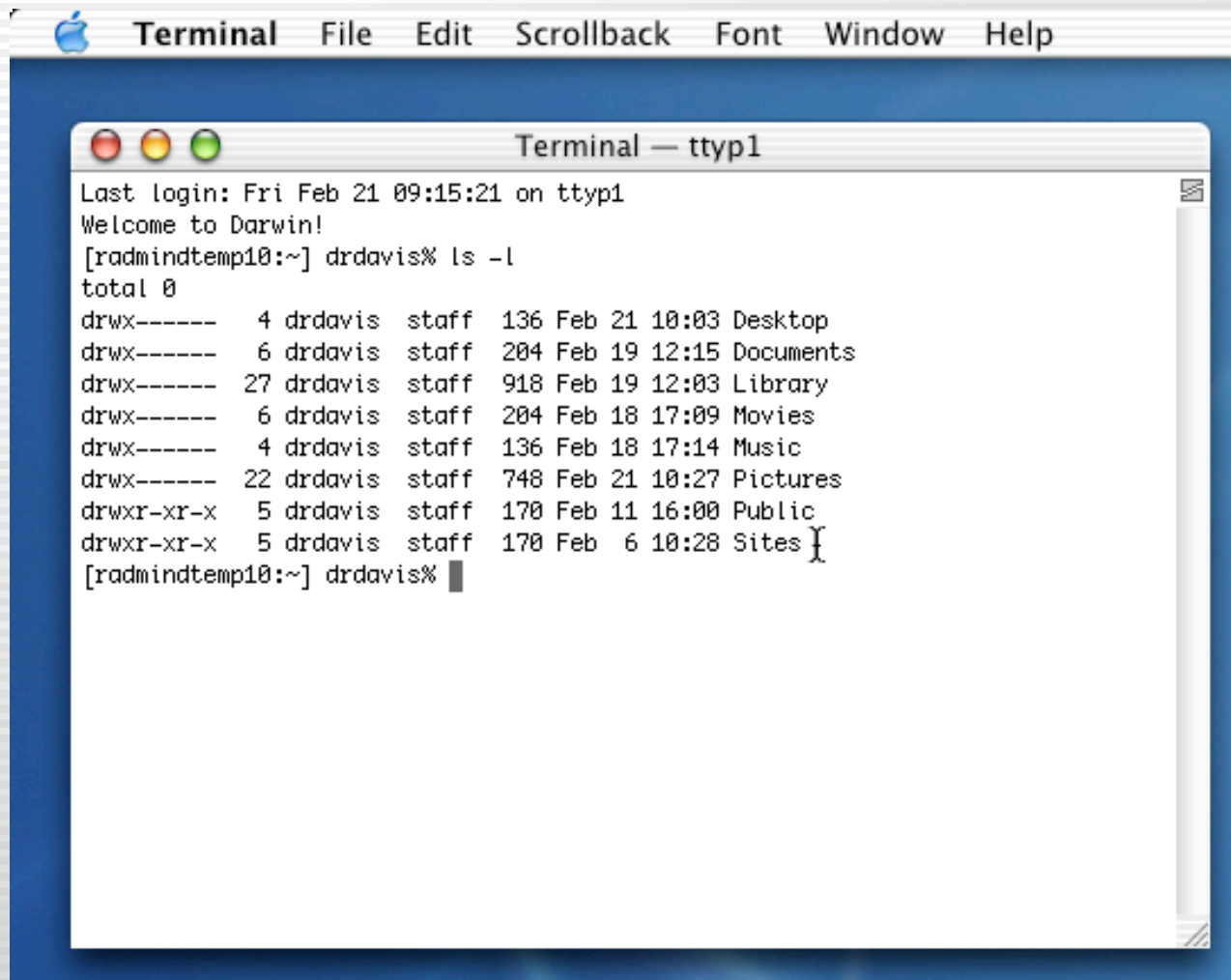
Name	User	Status	% CPU	% Memory
dynamic_pager	root	Running	0.00	0.00
mDNSResponder	root	Running	0.00	0.10
mach_init	root	Running	0.00	0.00
ATSServer	drdavis	Running	0.00	1.20
SystemUIServer	drdavis	Running	0.00	1.00
cupsd	root	Running	0.00	0.20
SecurityServer	root	Running	0.00	0.20
netinfod	root	Running	0.00	0.10
ssh	drdavis	Running	0.00	0.20
pbs	drdavis	Running	0.00	0.30
lookupd	root	Running	0.00	0.20
check_afp	root	Running	0.00	0.30
inetd	root	Running	0.00	0.00
SecurityAgent	drdavis	Running	0.00	0.80
Window Manager	drdavis	Running	0.00	5.80
loginwindow	drdavis	Running	0.00	1.20
configd	root	Running	0.00	0.20
sshd	root	Running	0.00	0.10
ssh	root	Zombie	0.00	0.00
crond	root	Running	0.00	0.00

At the bottom of the window, it indicates "41 processes" and "Sample every 20 seconds". A "More Info" link is also present.

# Stuffit Standard



# Terminal



The image shows a screenshot of a macOS Terminal window. The window title is "Terminal" and the menu bar includes "Terminal", "File", "Edit", "Scrollback", "Font", "Window", and "Help". The terminal content shows a login session for user "drdavis" on "tty1". The user has run the command "ls -l", which displays a long listing of files and directories in the home directory. The output includes permissions, owner, group, size, date, and filename for each item.

```
Terminal — tty1
Last login: Fri Feb 21 09:15:21 on tty1
Welcome to Darwin!
[radmindtemp10:~] drdavis% ls -l
total 0
drwx-----  4 drdavis  staff  136 Feb 21 10:03 Desktop
drwx-----  6 drdavis  staff  204 Feb 19 12:15 Documents
drwx----- 27 drdavis  staff  918 Feb 19 12:03 Library
drwx-----  6 drdavis  staff  204 Feb 18 17:09 Movies
drwx-----  4 drdavis  staff  136 Feb 18 17:14 Music
drwx----- 22 drdavis  staff  748 Feb 21 10:27 Pictures
drwxr-xr-x   5 drdavis  staff  170 Feb 11 16:00 Public
drwxr-xr-x   5 drdavis  staff  170 Feb  6 10:28 Sites
[radmindtemp10:~] drdavis%
```

# Application Demonstration

- **Demonstration**
  - **Installer (Show how to install software)**
  - **iLife (Show the digital hub applications)**
    - iDVD
    - iTunes
    - iMovie
    - iPhoto
  - **Internet Applications**
    - Mail
    - Safari
    - iChat

# Questions and Answers





# More Classes Offered

**Mac OS X Intermediate**

**Monday, March 24th at 10:45 AM**

**Marriott Library Multimedia Center –  
Room 1745**

**Mac OS X Advanced**

**Thursday – April 3rd at 10:45 AM**

**Marriott Library Multimedia Center –  
Room 1745**

# Contact Information

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- Apple – [www.apple.com](http://www.apple.com)

