



**UNIVERSITY OF UTAH**  
STUDENT COMPUTING LABS

X

Mac OS X



**UNIVERSITY OF UTAH**  
STUDENT COMPUTING LABS

# Mac OS X Advanced

University of Utah  
Student Computing Labs  
Macintosh Support  
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# Previous Classes

- Mac OS X Technology and History
- Mac OS X Basics
- Mac OS X Intermediate
  - Presentation Slides Online
  - Presentation Videos Online
  - [www.macos.utah.edu](http://www.macos.utah.edu)



# File System



# File System – Start Tour

- Activate Finder by clicking on desktop or clicking on Finder icon in the Dock.



- Click the Computer icon

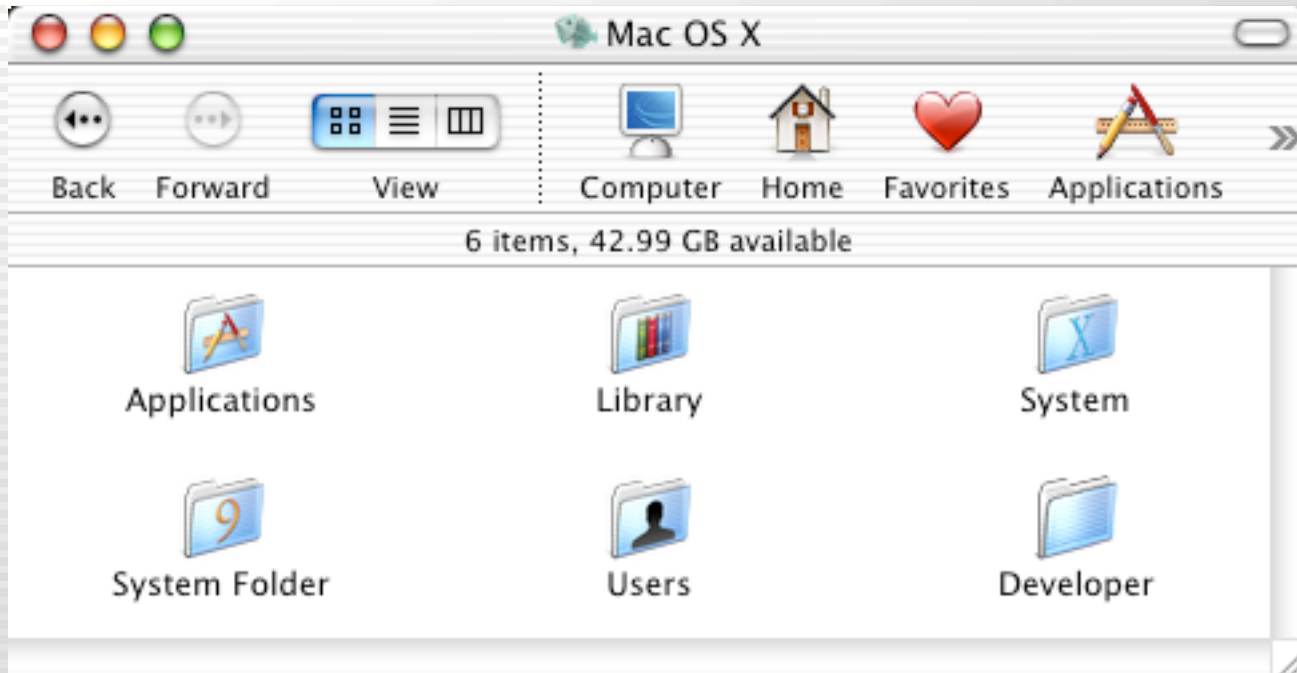


- Select your startup disk name



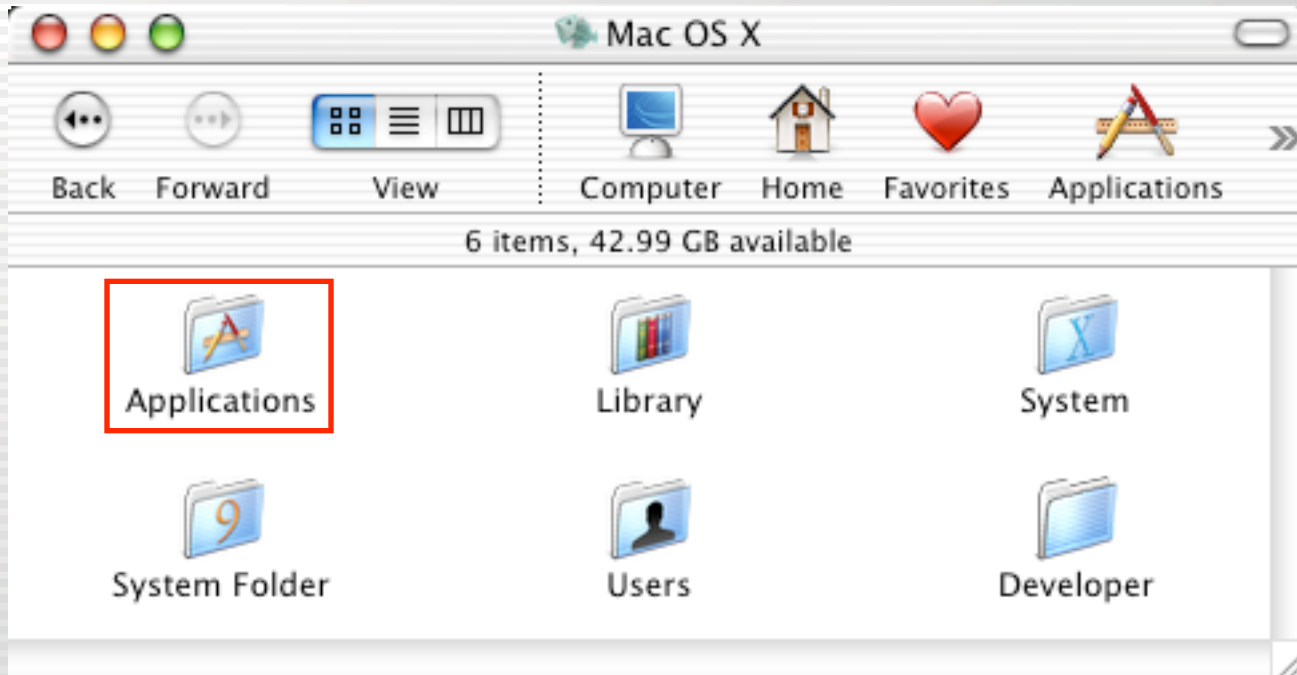
# File System – Root Level

- The following window will display



# File System – Root Level

- Applications



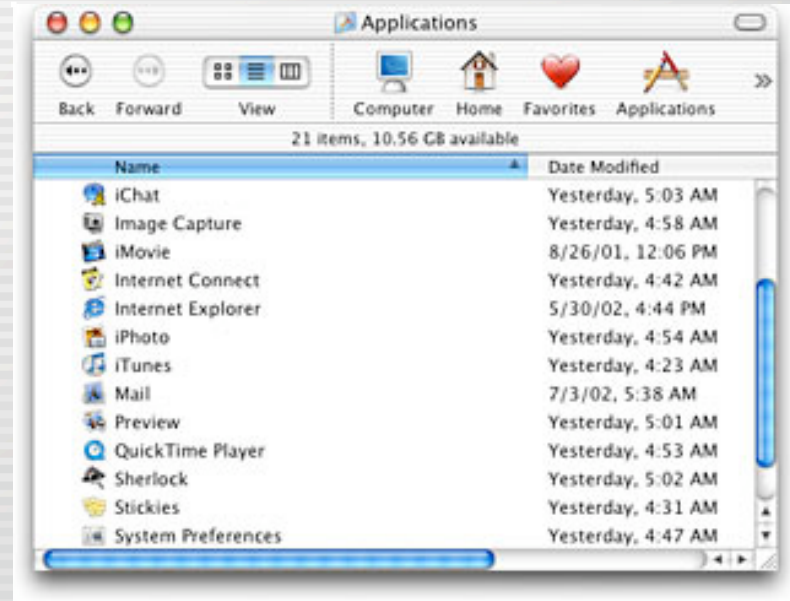
The Applications folder holds software that is available to all users of the machine.

# File System – Root Level

- Applications

- Contains Apple & Third-Party software
- Contains “Utilities” folder.
- To avoid problems/confusion with software upgrades

- Recommend that you do not re-organize apps inside sub-folders or rename applications, especially Apple’s



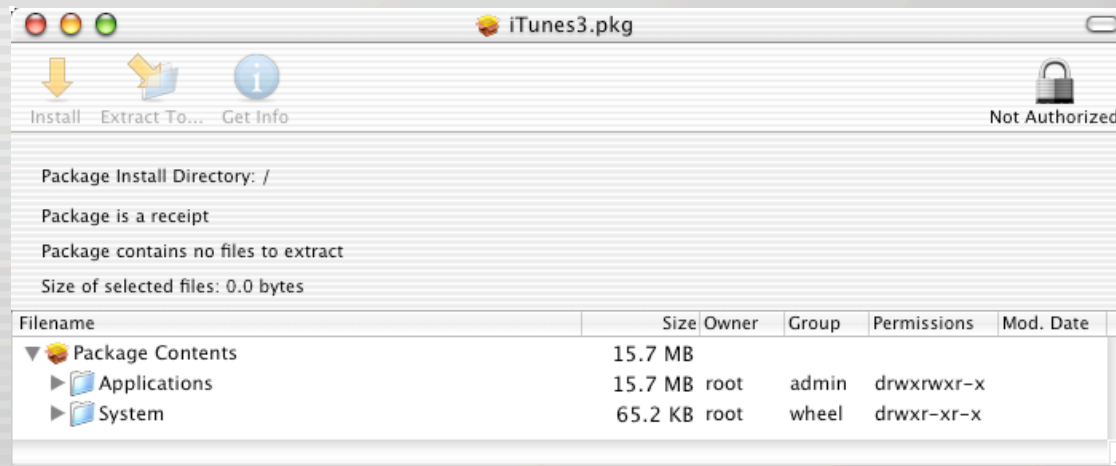


# File System – Root Level

- Applications

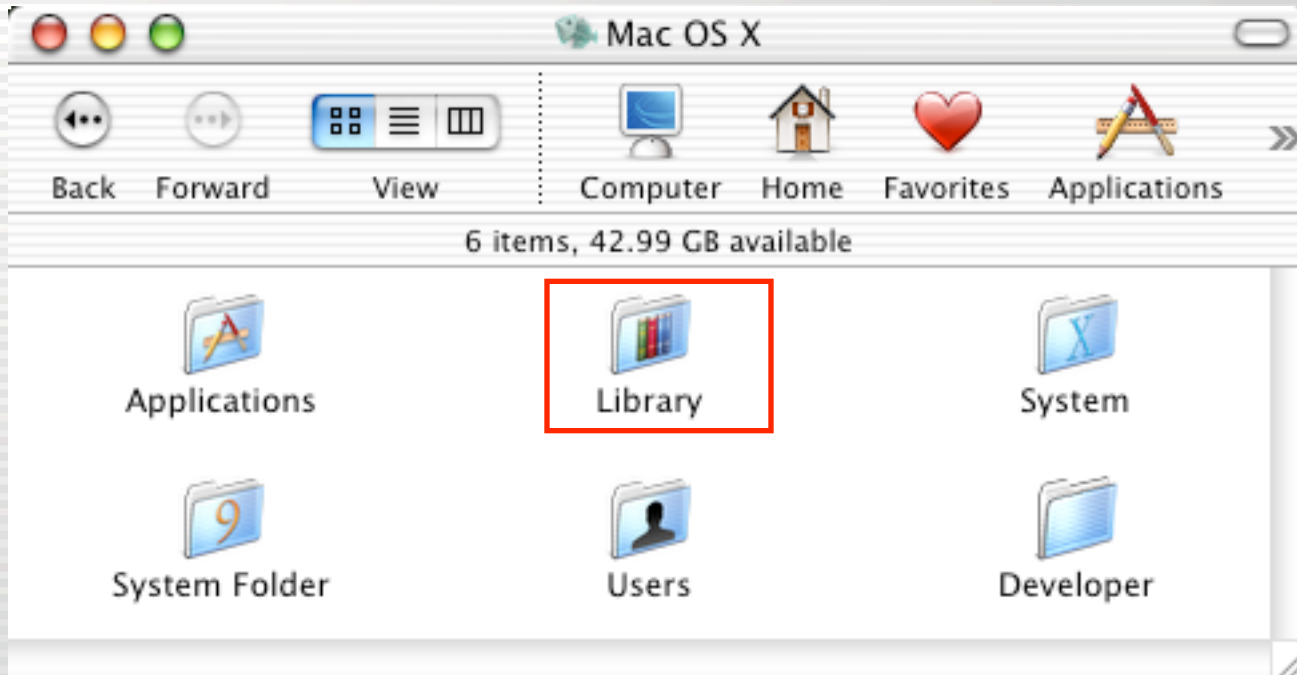
- If you want to re-organize and rename

- Keep track of original application name and location
- Move & rename application to its original name and location before upgrading software
- Use tools like Pacifist to force package installers to custom locations



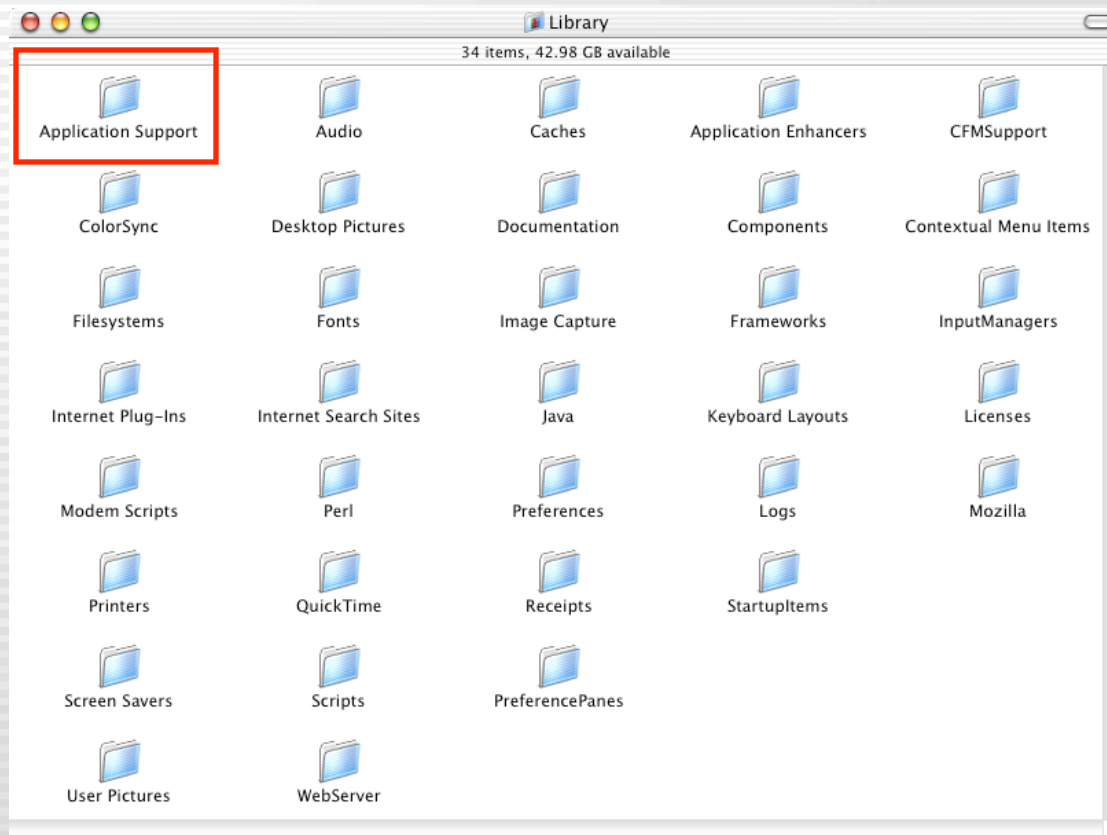
# File System – Root Level

- Library



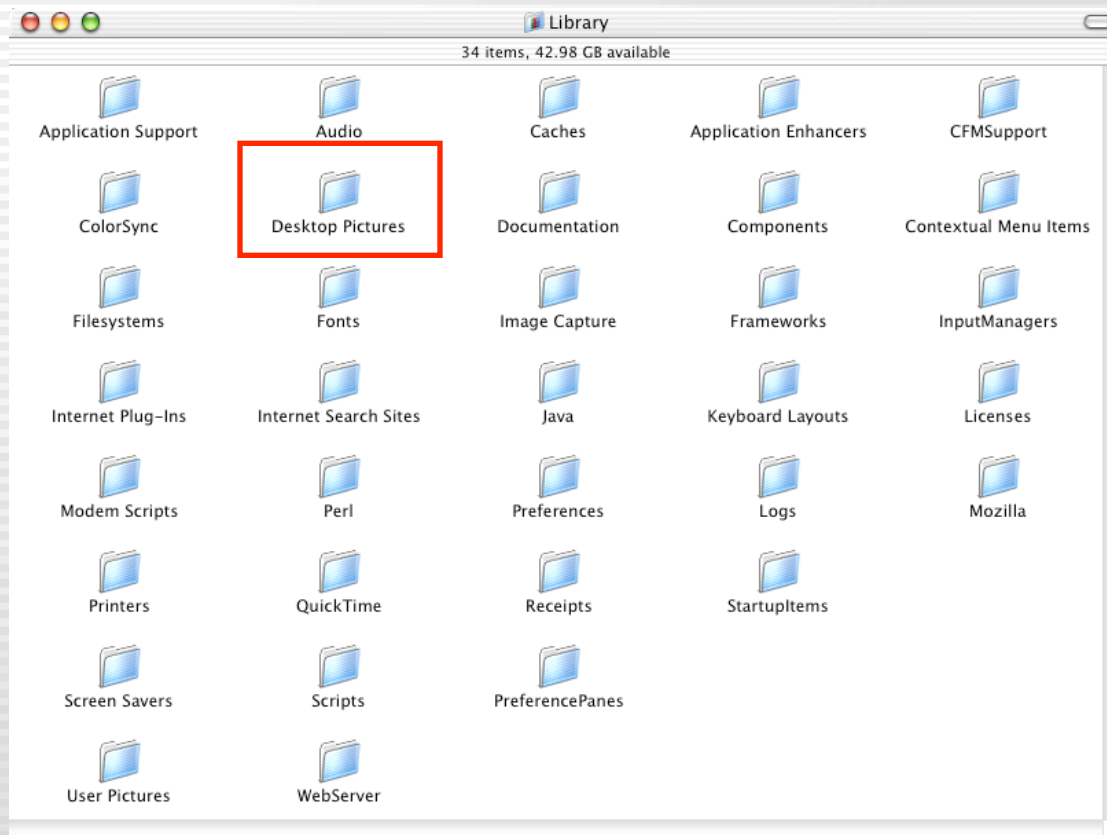
The main Library folder stores components for the OS and installed programs.

# File System – Library



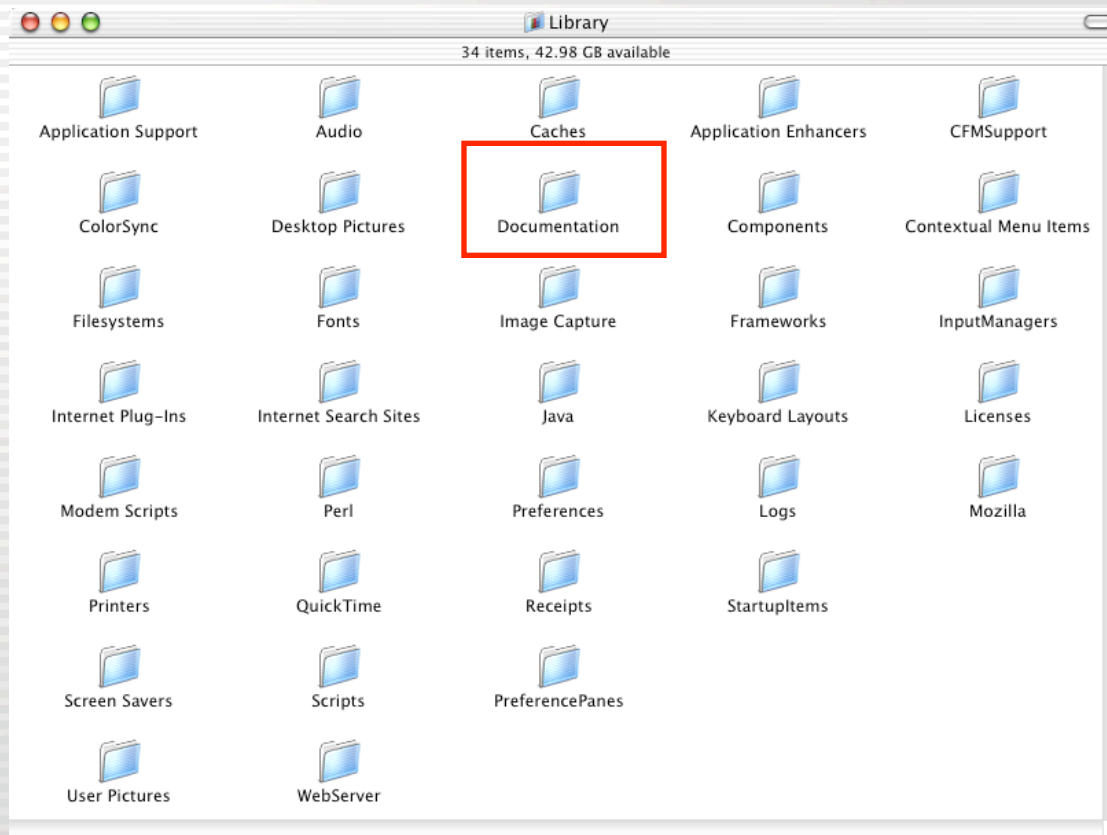
Application Support holds accessory software like Stuffit Engine.cfm

# File System – Library



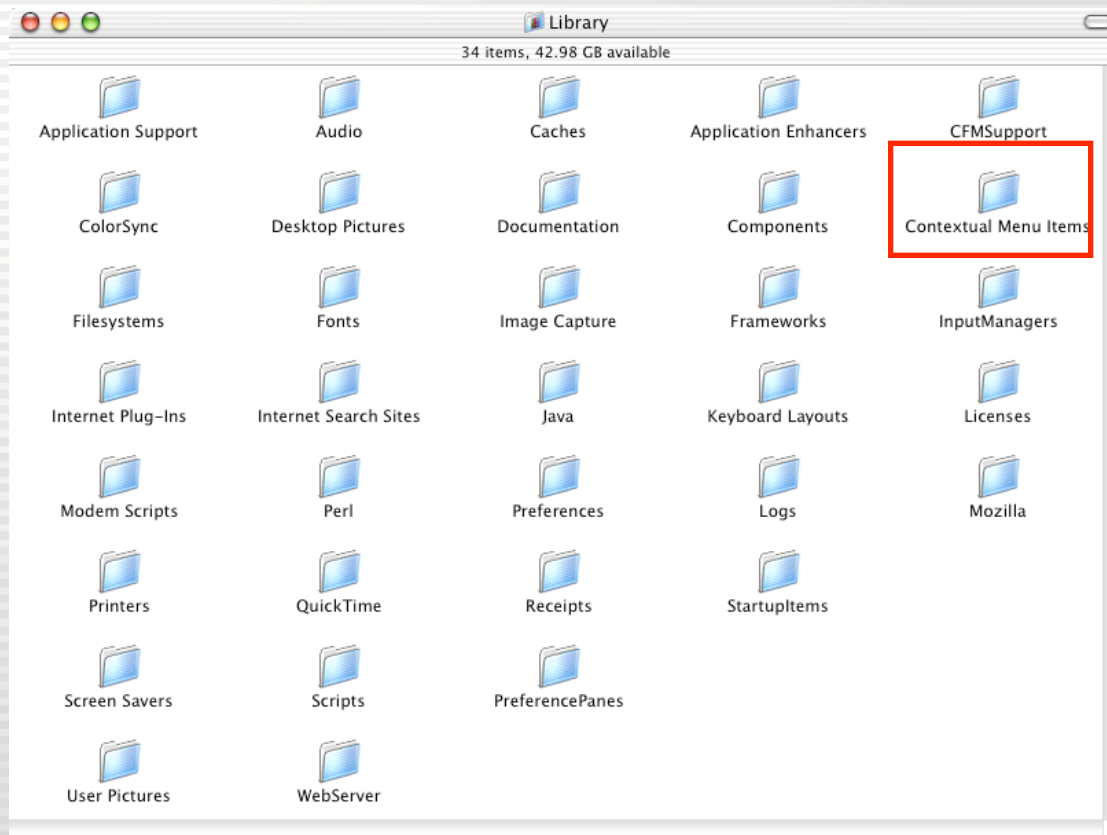
Desktop Pictures holds default pictures available to all users.

# File System – Library



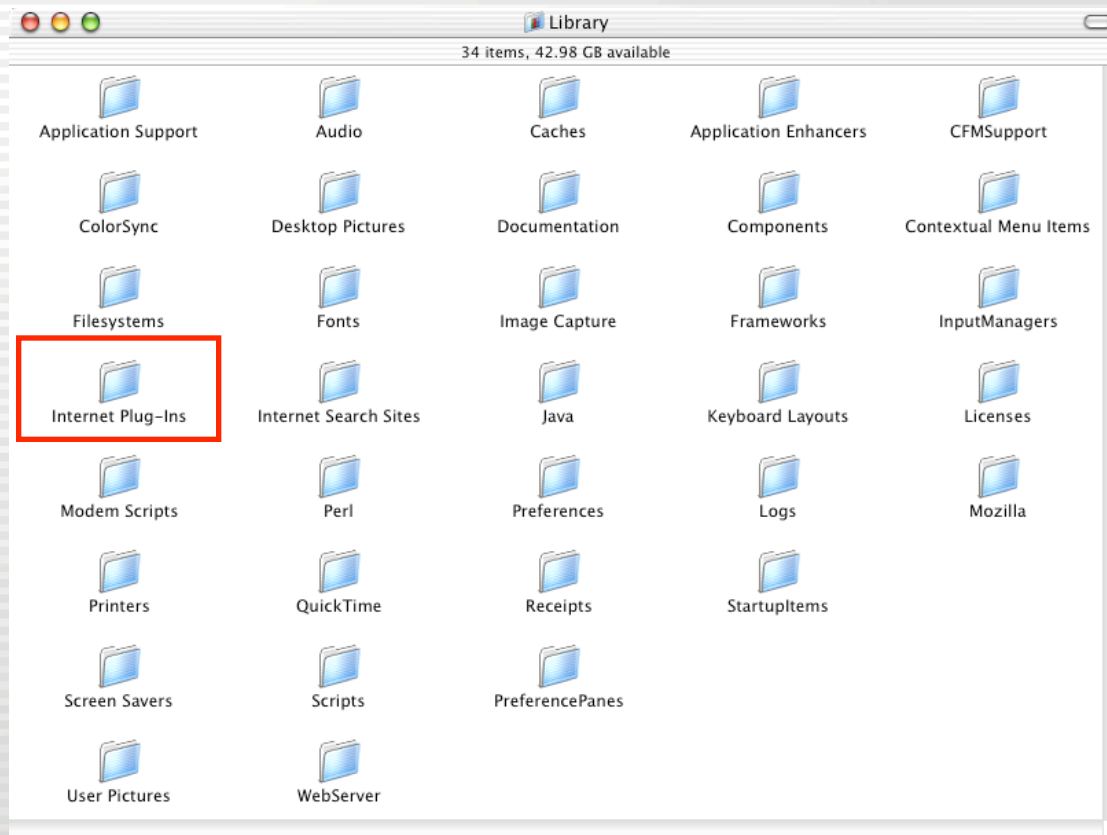
Documentation holds application Read Me files & other documentation that can be accessed with Help, etc.

# File System – Library



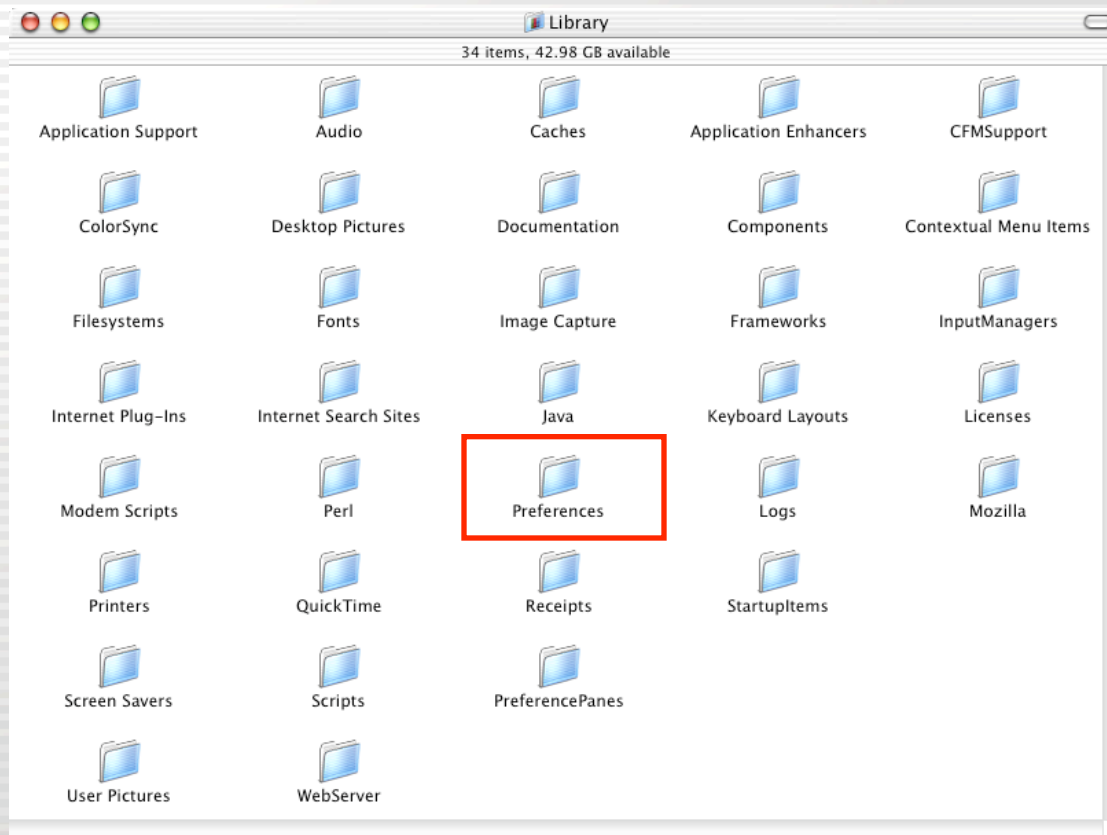
Contextual Menu Items holds third-party contextual menus like lomega that allows users to format zips

# File System – Library



Internet Plug-Ins holds plug-ins for your browsers like QuickTime and Shockwave.

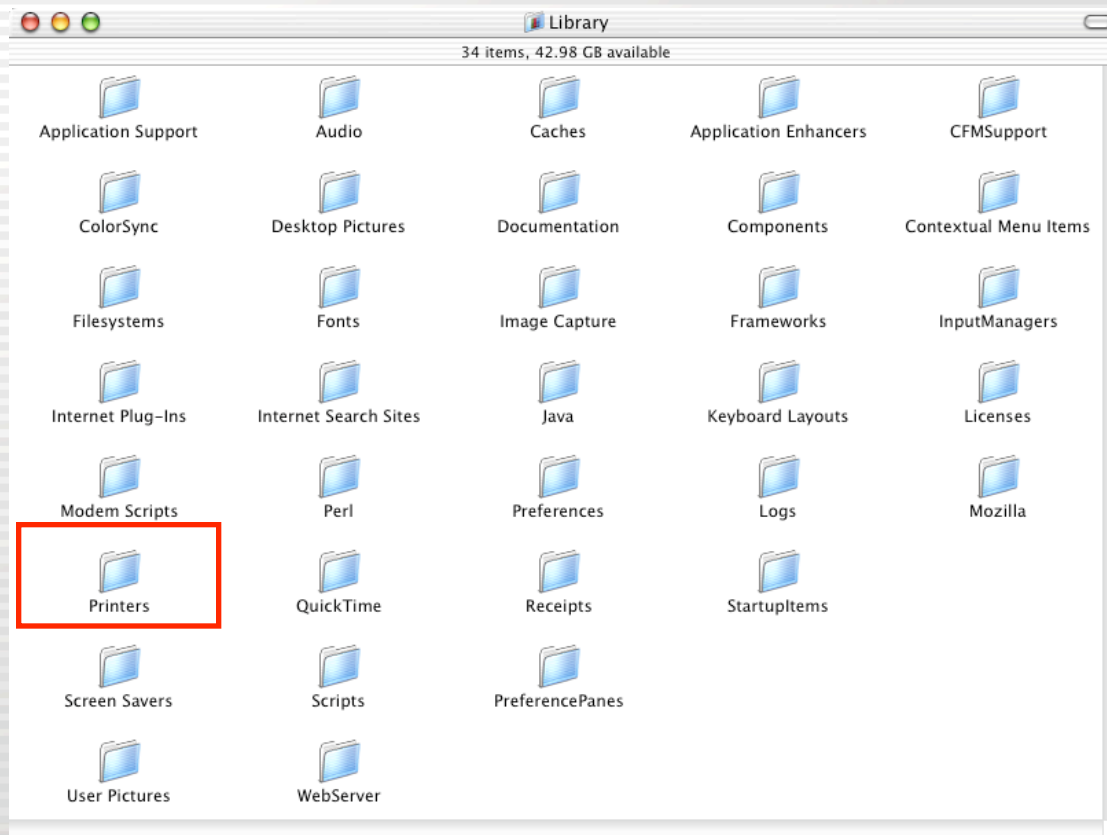
# File System – Library



Preferences holds a couple systemwide preferences, such as the loginwindow.

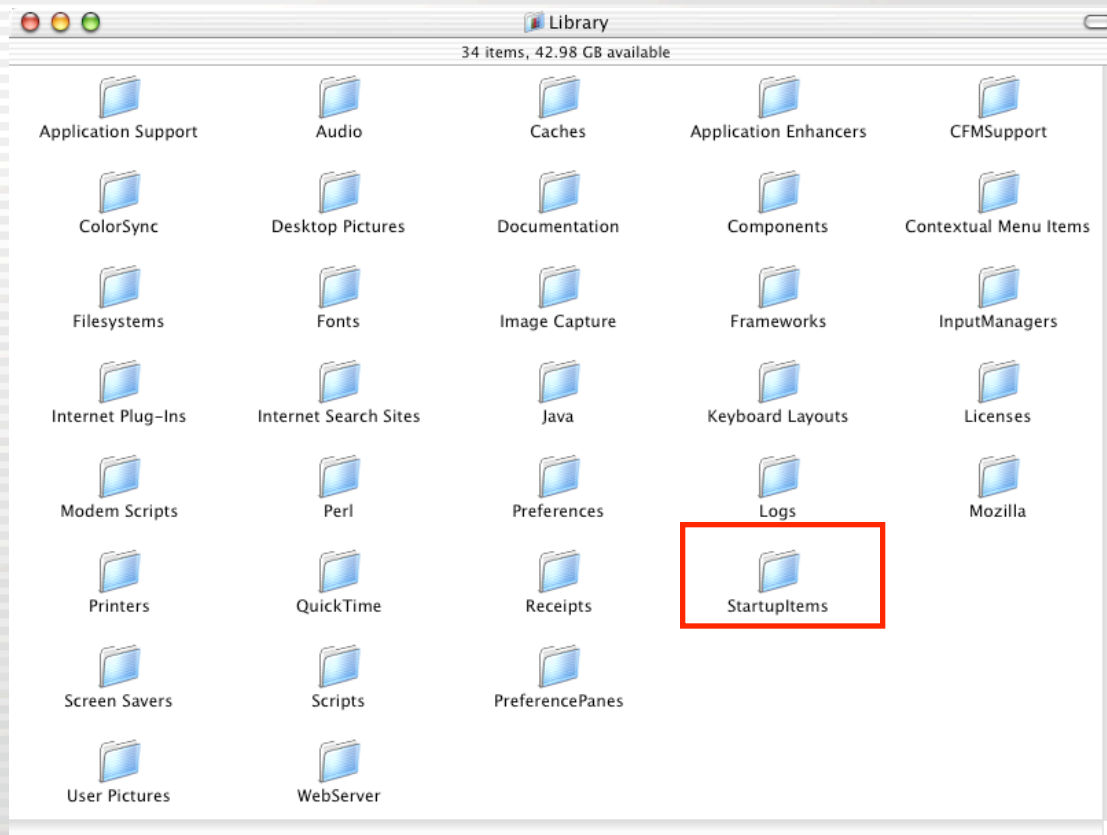


# File System – Library



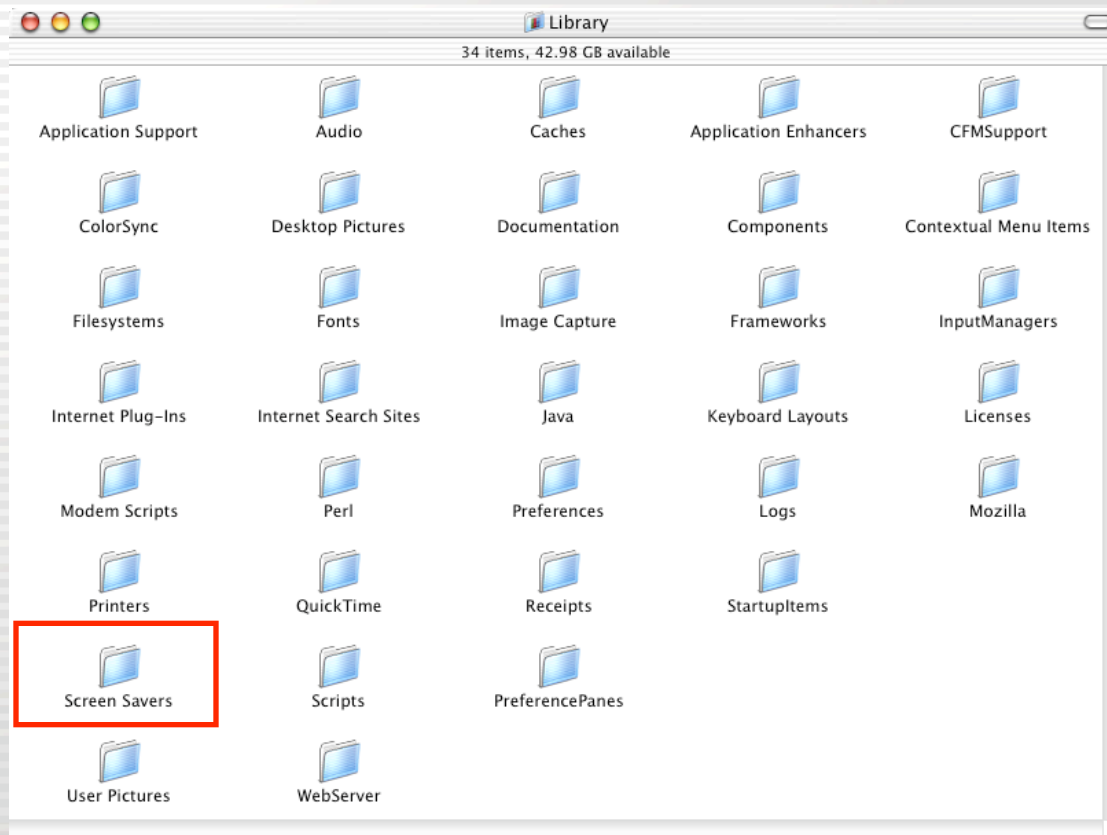
Printers holds third-party drivers for Epson, HP and Lexmark printers.

# File System – Library



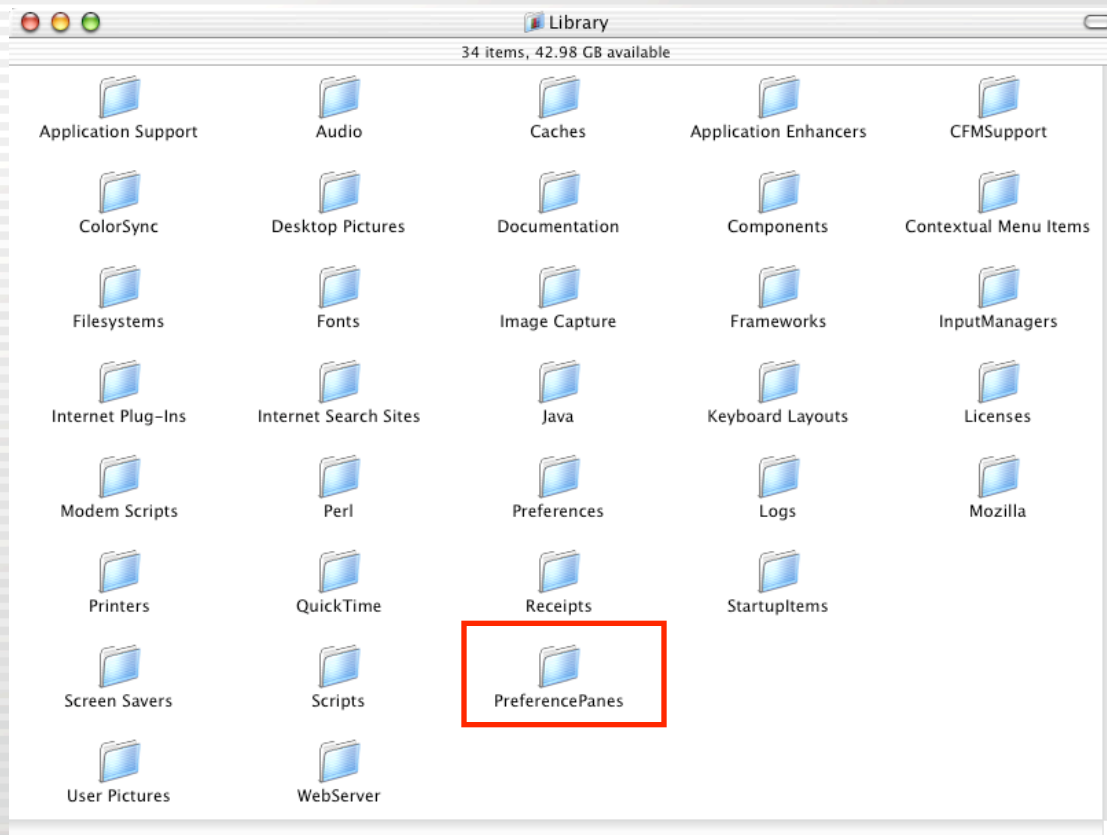
StartupItems is similar to the Mac OS 9 Startup Items folder, mostly for 3rd Party software like Timbuktu Pro

# File System – Library



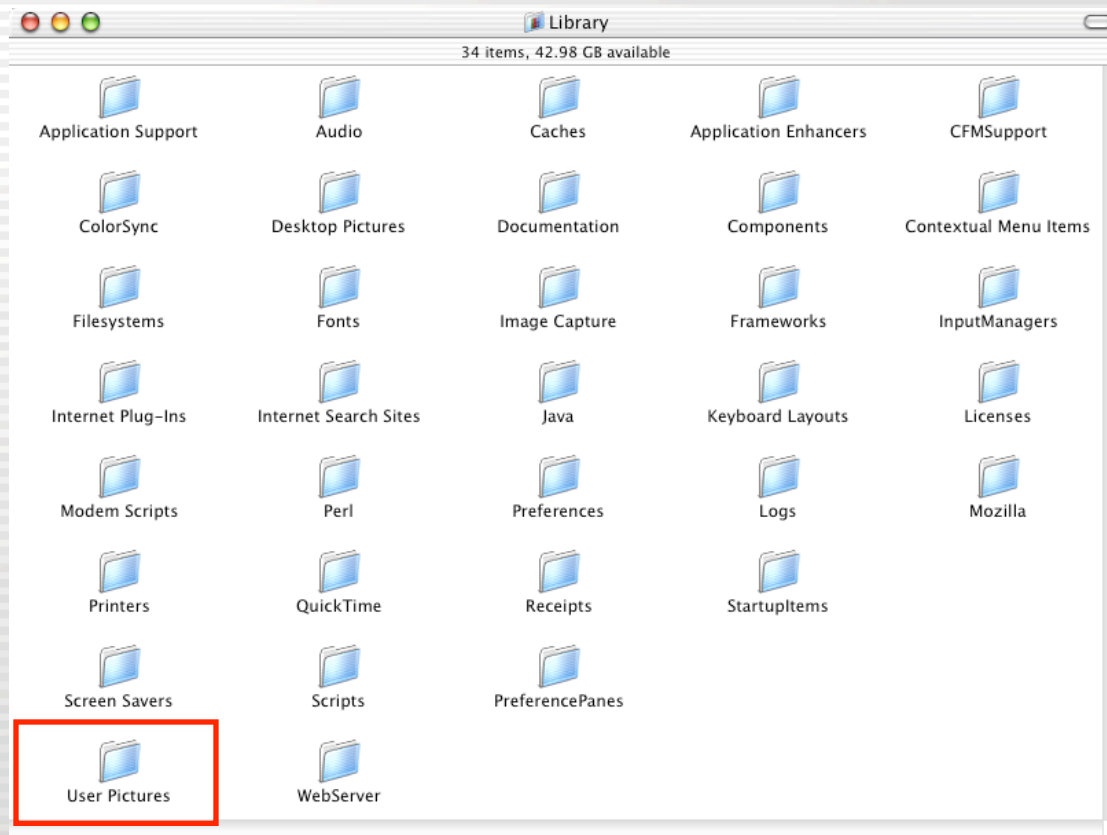
Screen Savers holds the screen savers available to all users.

# File System – Library



PreferencePanes holds 3rd Party System Preference panes like TinkerTool, Default Folder, etc.

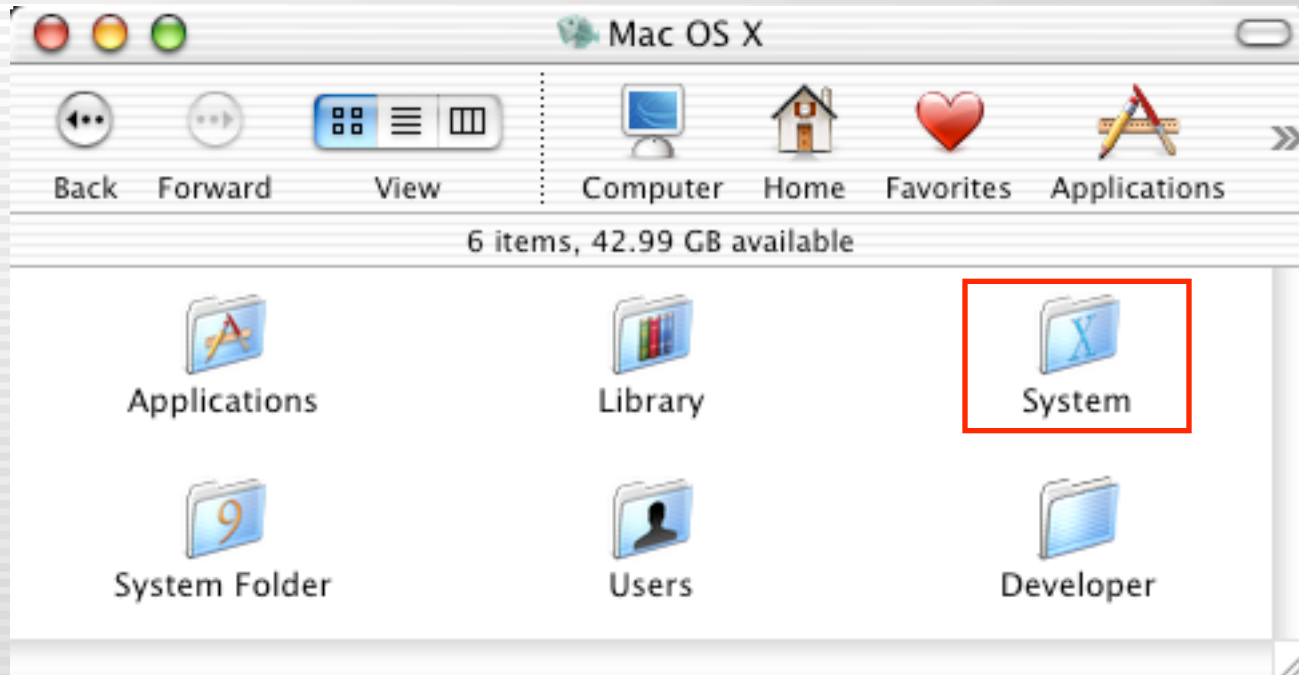
# File System – Library



User Pictures contains User Pictures that are available to all users and are used in the Login Window.

# File System – Root Level

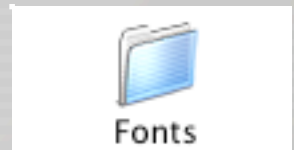
- System



The System folder contains the core “Mac OS X” software.

# File System – System

- **System folder – Notable Items**
  - CoreServices – Home of the Finder, the dock, the login panel images, Software Update, etc.
  - Extensions – Holds various extensions for items like SCSI cards, video adapters, USB devices, etc.
  - Fonts – The core OS fonts, users shouldn't add delete fonts in this folder.



# File System – System

- **System folder – Notable Items**
  - **Frameworks** – Folders containing the essential pieces of OS X. They are similar to Mac OS 9 dynamic shared libraries.
  - **PreferencePanels** – Holds the Apple default System Preference
  - **ScreenSavers** – Holds Apple’s default screen savers like Beach, Forest, etc.





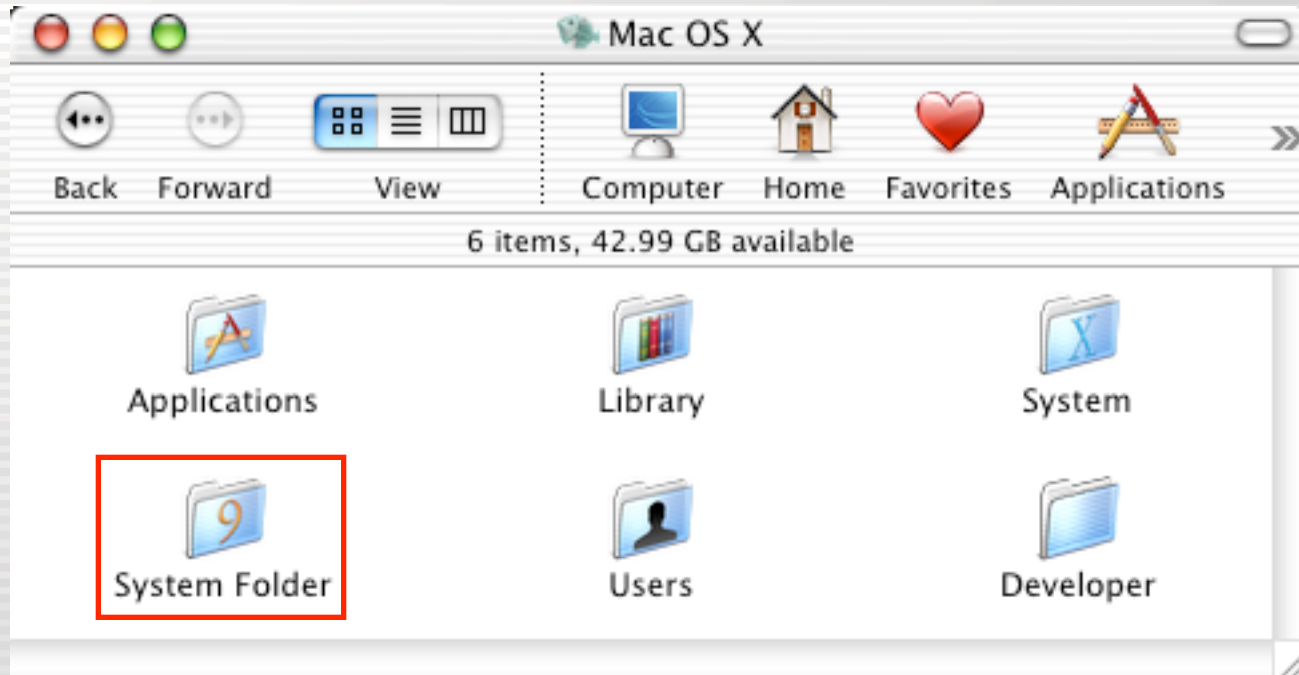
# File System – System

- **System folder – Notable Items**
  - **Services** – Holds software that allows you to access certain features in one app another app.
  - **StartupItems** – Holds software various protocols that load startup. These include Apache Web server, AppleShare, AppleTalk, Network Time, etc.



# File System – Root Level

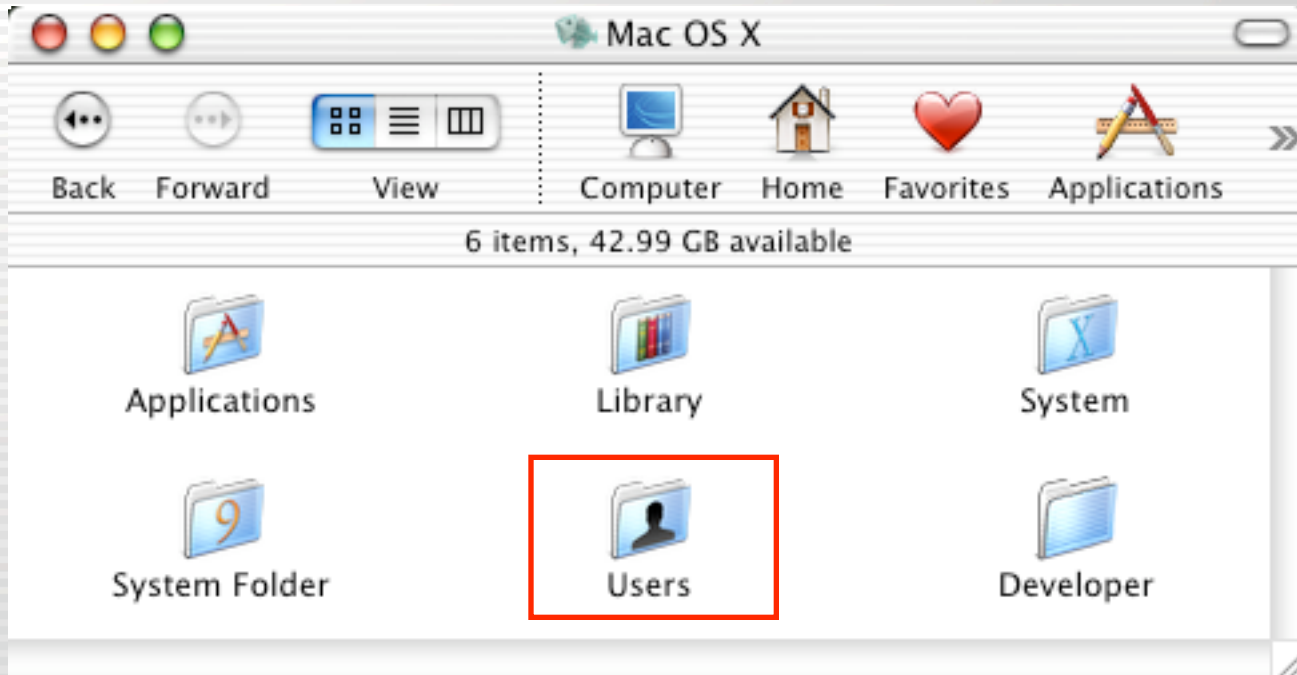
- System Folder



The “System Folder” folder is the Mac OS 9.x (Classic) operating system folder.

# File System – Root Level

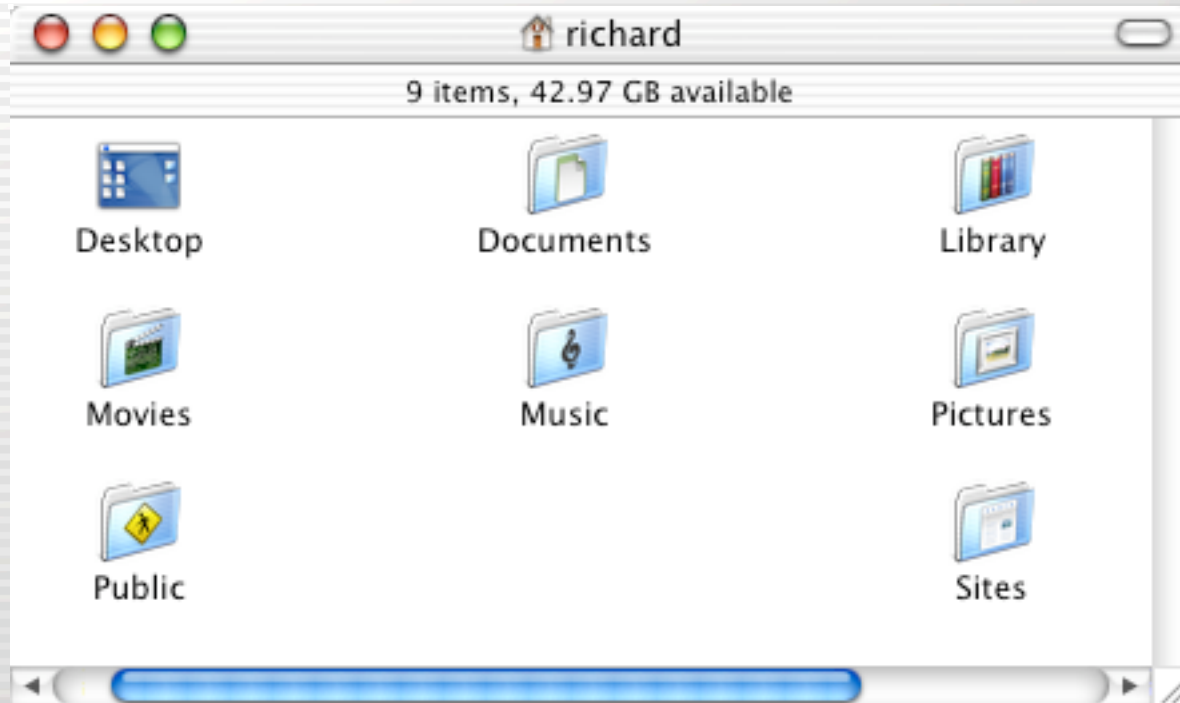
- Users



The Users folder holds each users Home folder.

# File System – Users

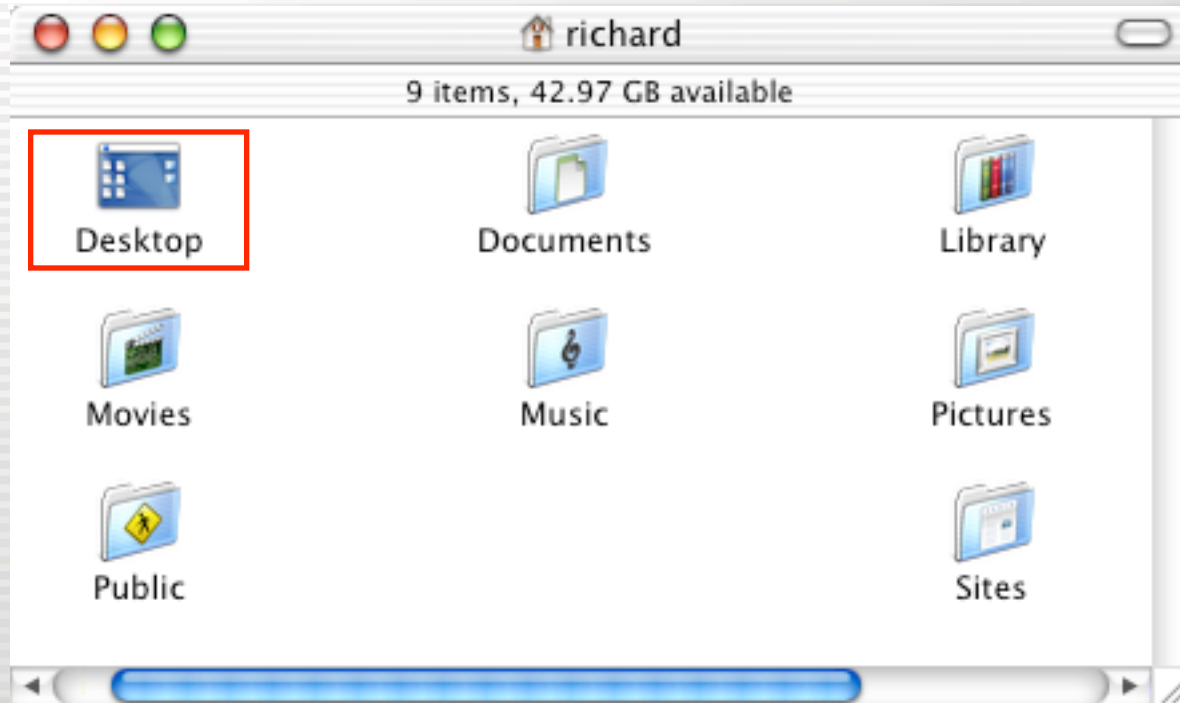
- Users



Users folder contains 8  
Desktop and Library are REQUIRED.

# File System – Users

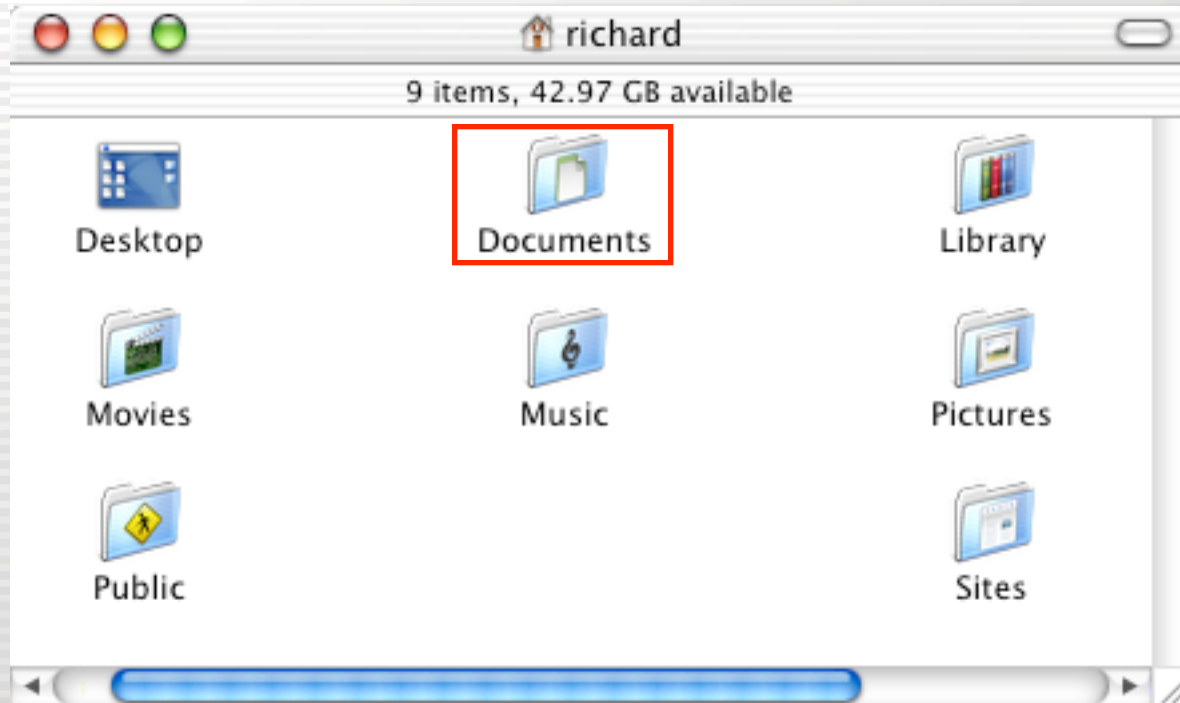
- Desktop



Files stored here, appear on the desktop

# File System – Users

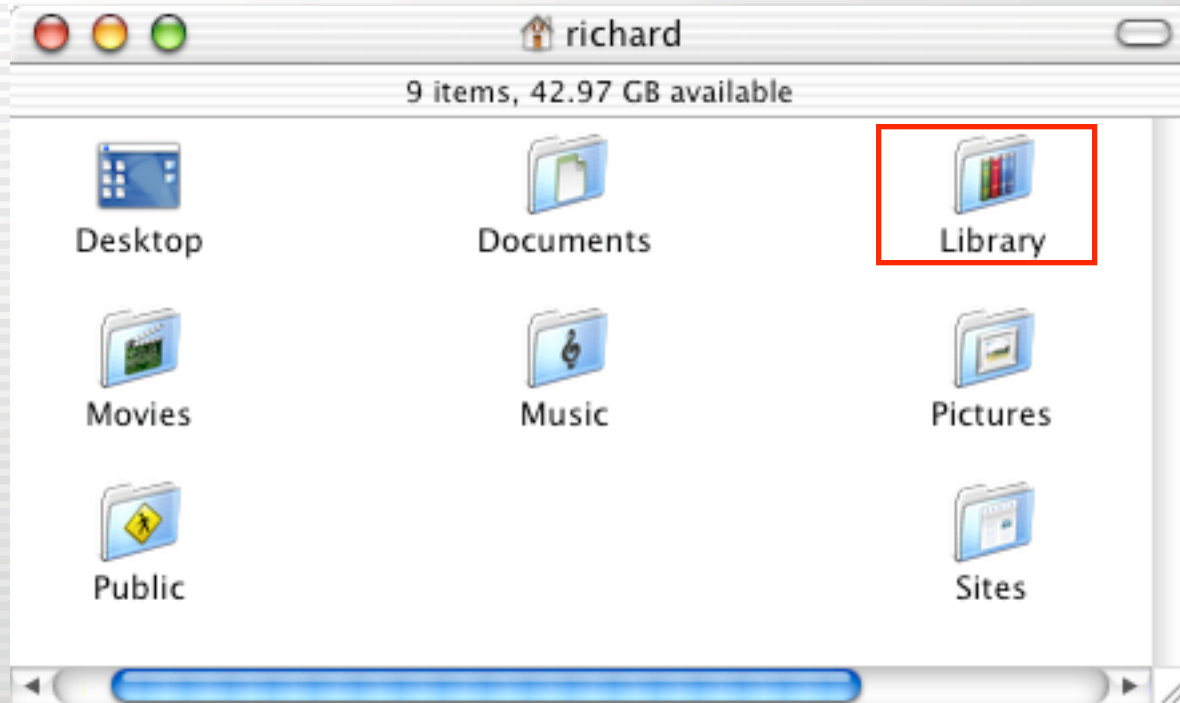
- Documents



The default location for saving/opening files.

# File System – Users

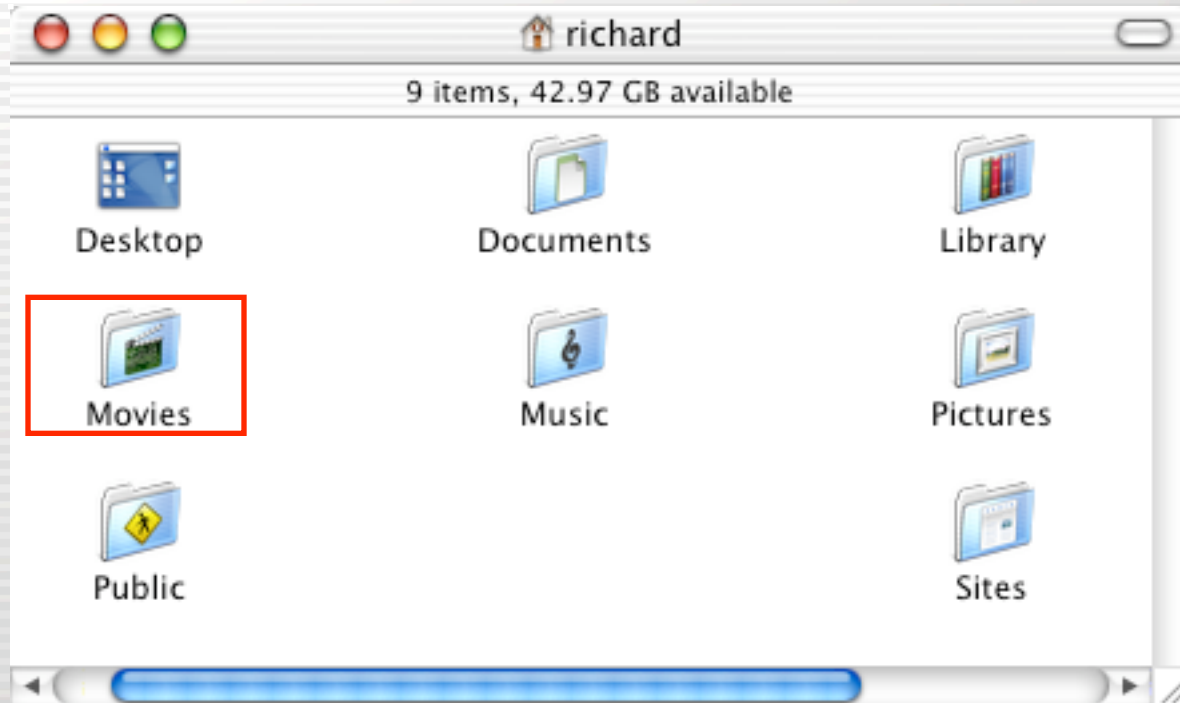
- **Library**



Has similar functionality as /Library folder but for the specific user. Includes, Prefs, Fonts, Screen Savers, etc.

# File System – Users

- Movies

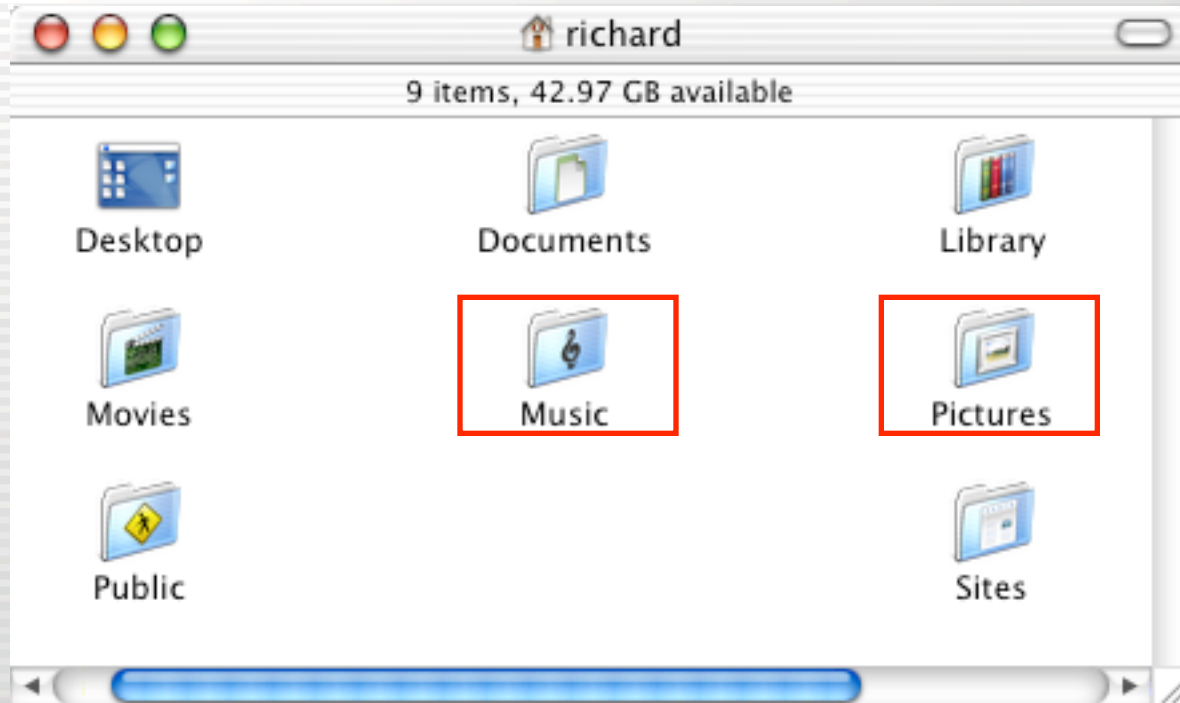


iMovie defaults to saving projects to this folder.



# File System – Users

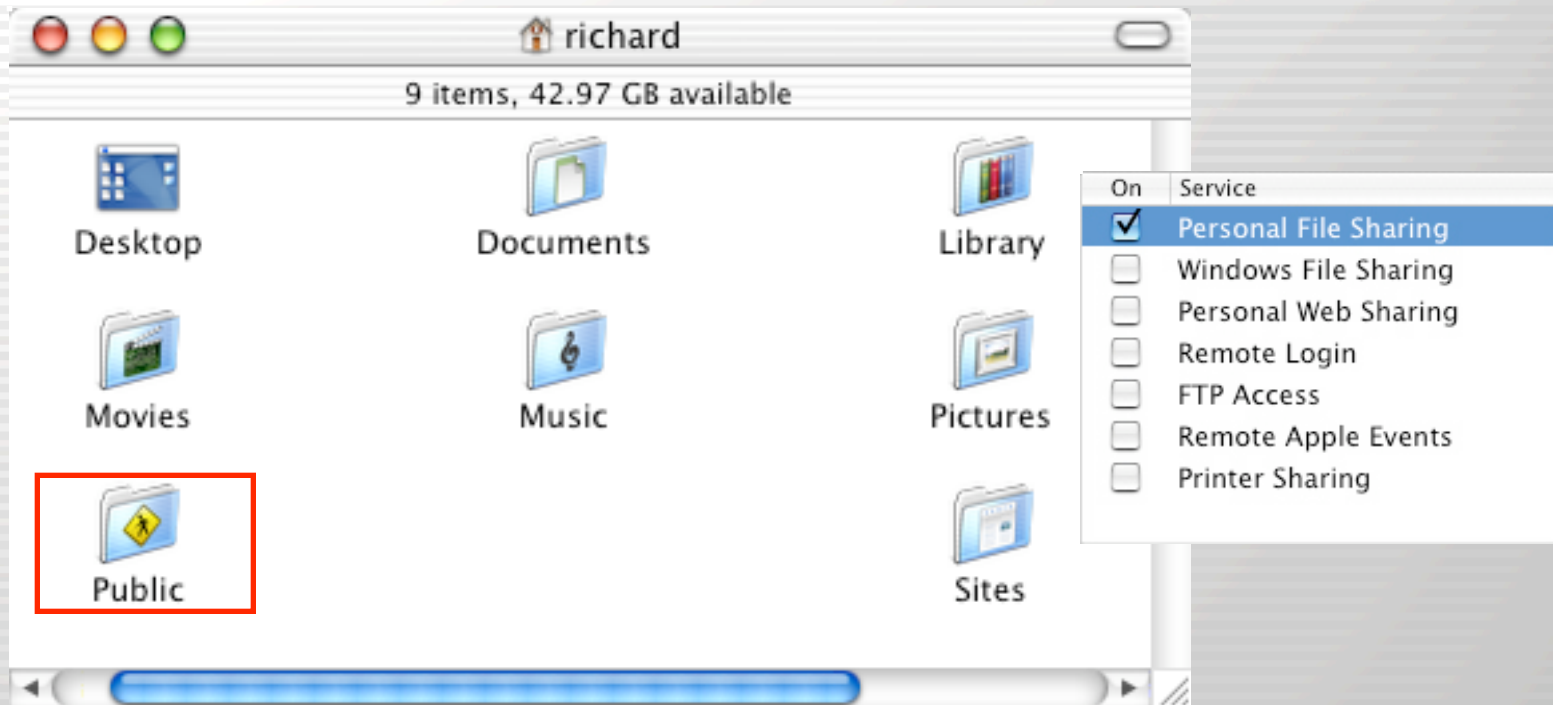
- Music & Pictures



iTunes and iPhoto use these folders.  
They should exist for these applications to work properly.

# File System – Users

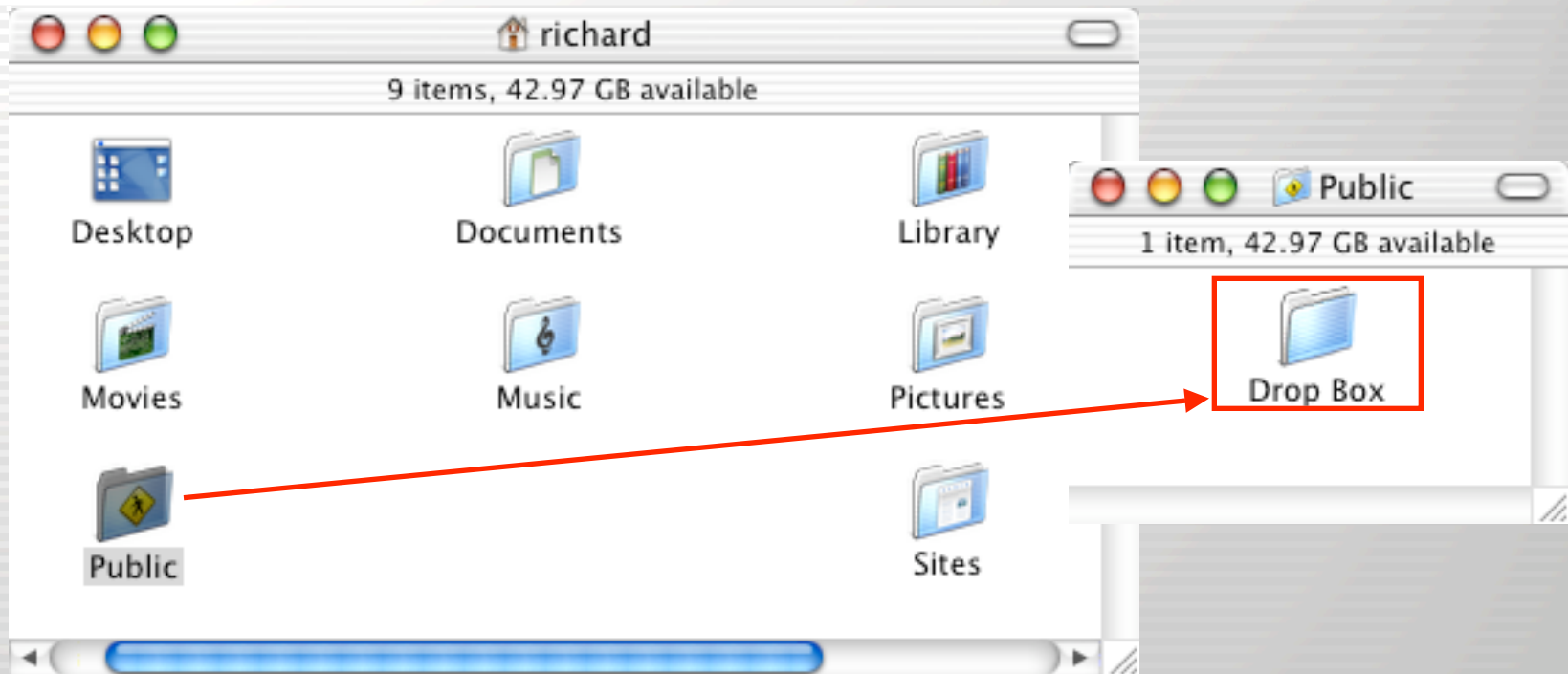
- **Public**



Used by “Personal File Sharing” to share files over the network.

# File System – Users

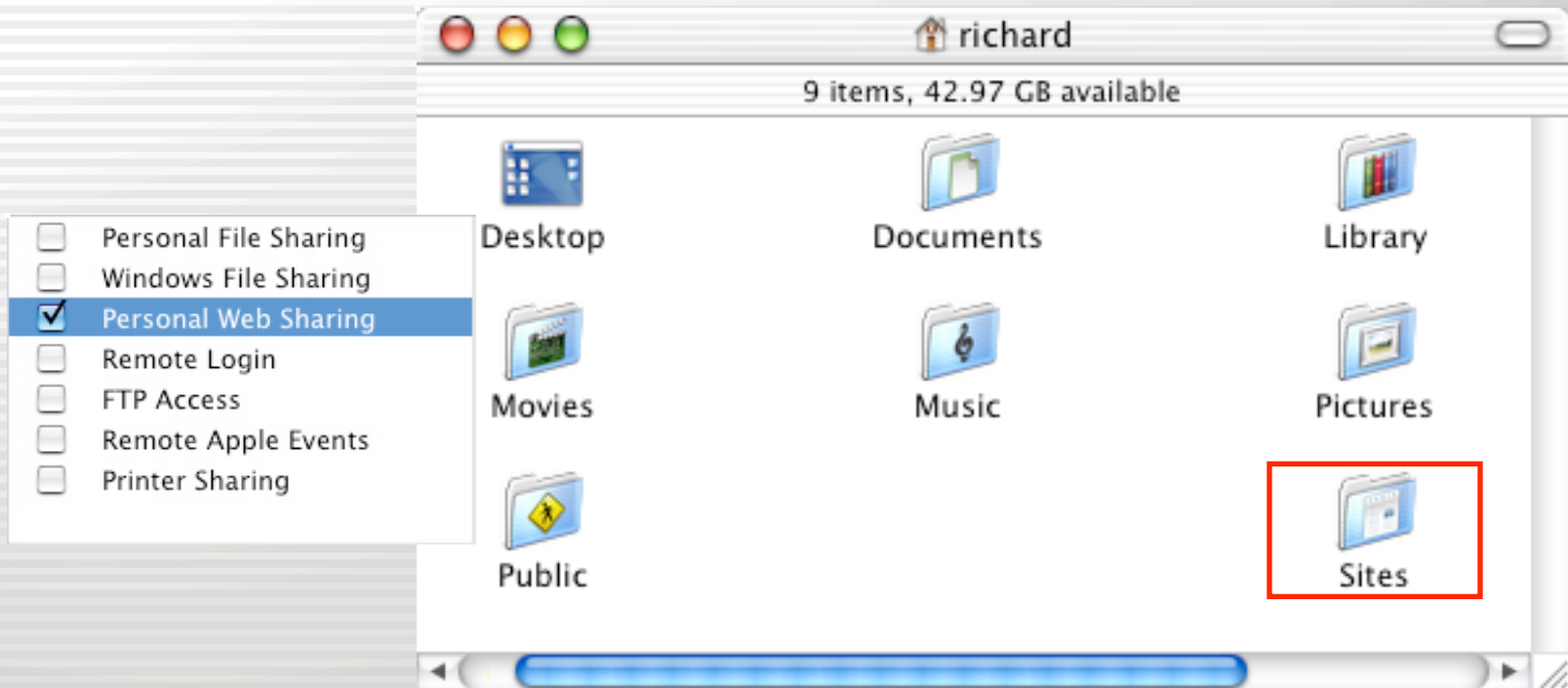
- **Public**



Allows network guest users to put files in “Drop Box”

# File System – Users

- Sites



This folder is used by “Personal Web Sharing” for users web sites.

# File System – Users

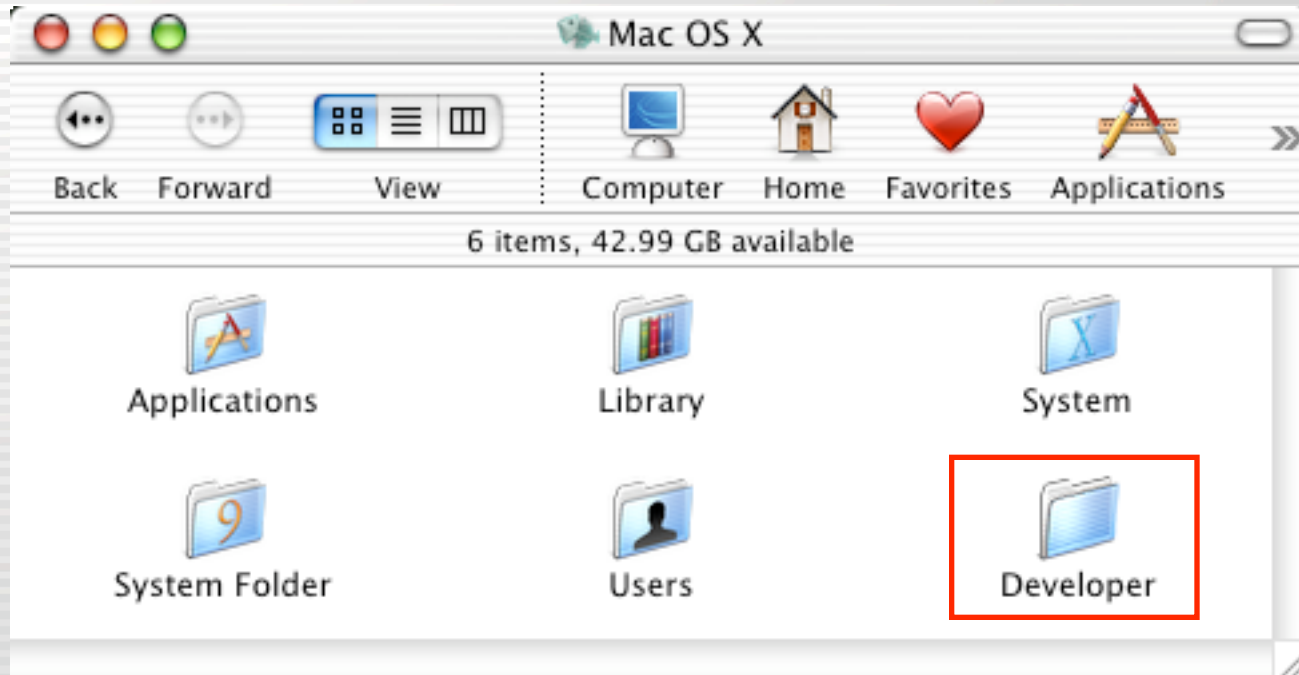
- Sites



Web browsers will read the “index.html” when they access <http://your-ip-or-dns/~yourname>

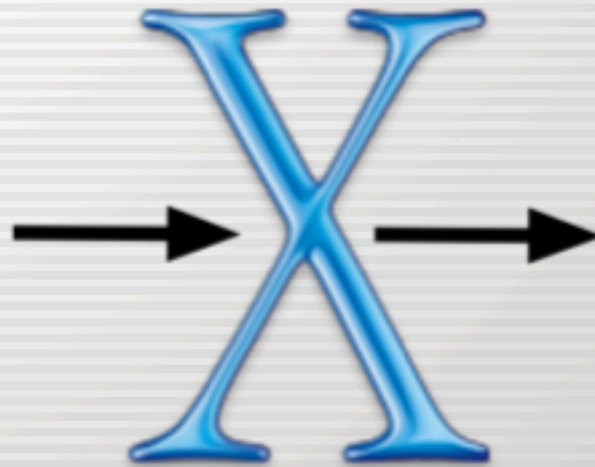
# File System – Root Level

- Developer



The Developer will be available if you installed the Developer Tools. Useful for programming.

# Classic



Mac OS X

# Classic – What is it?

- **Mac OS X Environment like Carbon & Cocoa**
  - **Runs Mac OS 9.x operating system as a process**
  - **Usually, slower than running Mac OS 9**
  - **Allows running most Mac OS 9 applications**
  - **Developed for user transition to Mac OS X**



# Classic – Why use it?

- **Transition**

- If you don't have the money to upgrade software and/or hardware
- Developer hasn't released a Mac OS X version
- There isn't an alternative Mac OS X application
- Older documents can't be converted

# Classic – Why NOT use it?

- **Apps Do Not run Properly**
  - Some classic applications do not run properly
  - Startup into Mac OS 9, while you can.
- **Classic Apps Crash**
  - Individual Classic Apps can crash other Classic apps and/or the Classic environment
  - The Classic Environment is Memory Protected
- **Classic Apps Usually Slower**

# Classic – Why NOT use it?

- **Apple is NOT supporting & developing for Mac OS 9**
  - **No future support for booting in Mac OS 9**
    - **No hardware release after June 30, 2003**
  - **The are planning to support Classic**
  - **Wants developers to focus on Mac OS X**
  - **Many software companies eliminating or severely reducing Mac OS 9 development.**

# Classic – Mac OS 9 “Dead”?



# Classic – Requirements

- **Mac OS 9.1.x (9.2.2 is best)**
  - **You need the right version of Mac OS 9**
    - **Mac OS X 10.1, required Mac OS 9.1 or higher**
    - **Mac OS X 10.2, requires Mac OS 9.2, or higher**
- **256MB RAM or even more**
- **400MHz G3 or better**

# Classic – Installation

- It should be included with default Mac OS X installation from factory.
- Else startup from Mac OS 9 Installation CD and install.
- **Optimizing**
  - Update to latest version of Mac OS 9
  - Disable unneeded startup files
  - Launch Classic & allow it to modify System Folder

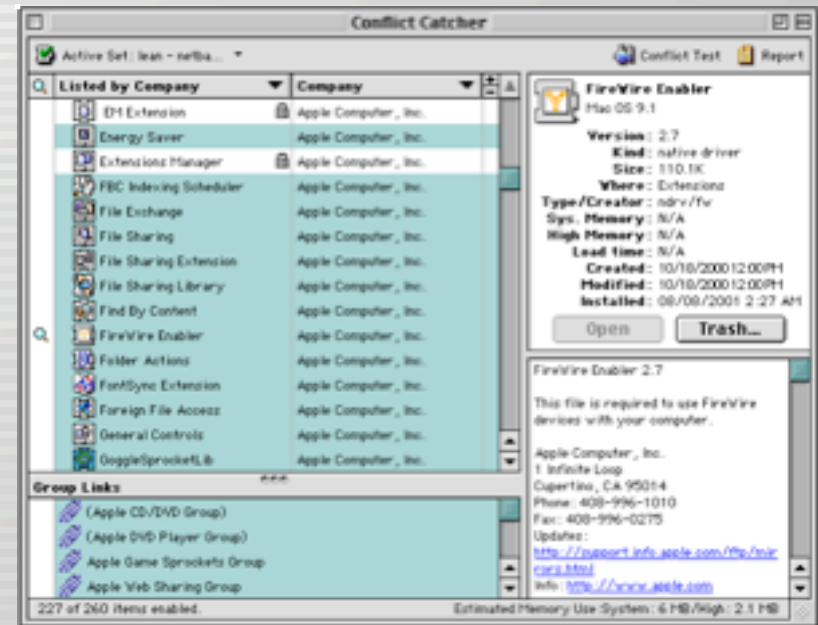
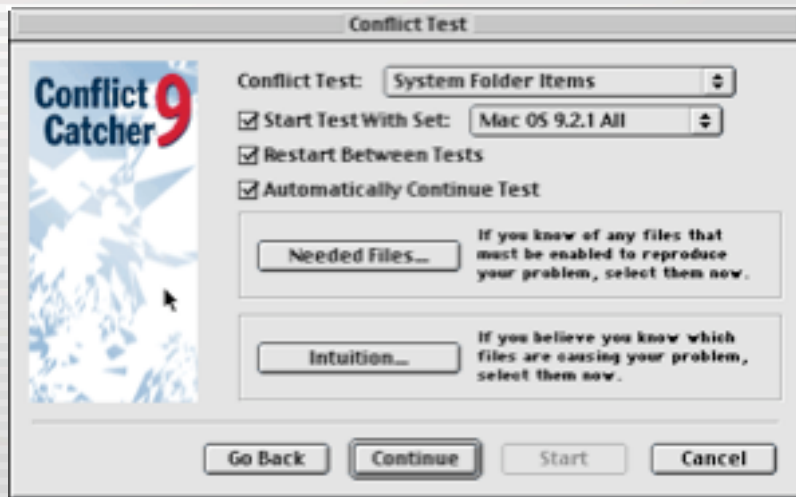
# Classic – Optimizing Tools

- Info on Mac OS 9 Startup Items
  - Extension Overload



# Classic – Optimizing Tools

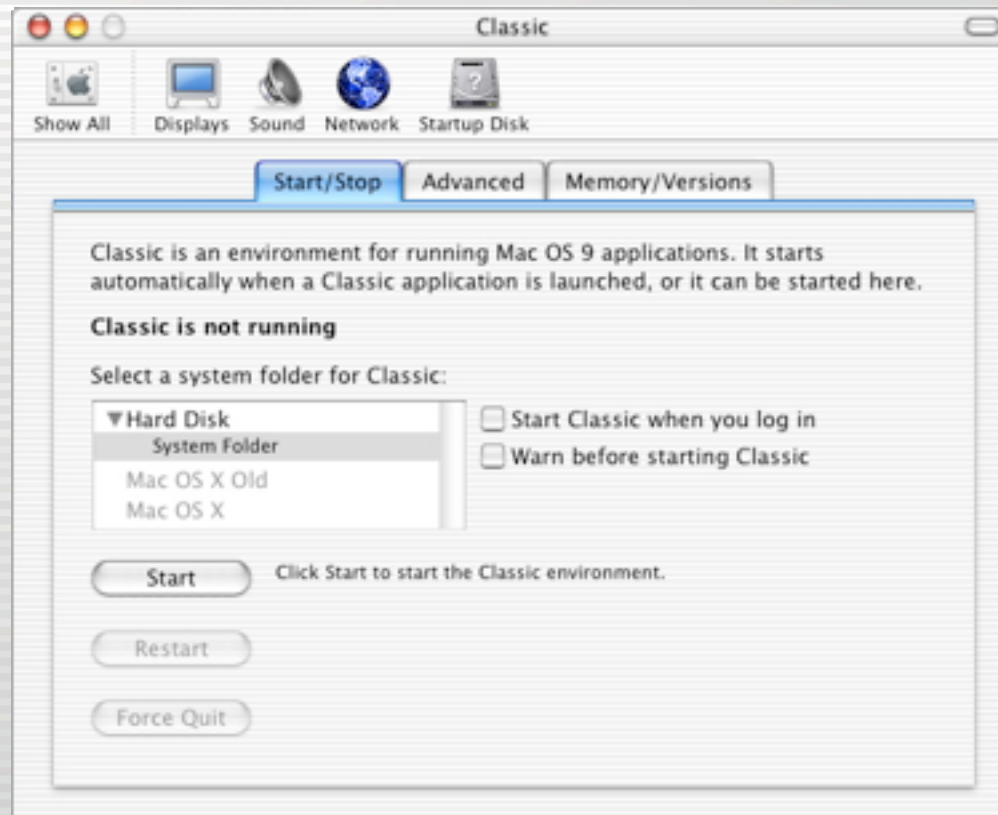
- Startup file management & conflict testing
  - Conflict Catcher





# Classic – Using Classic

- Select the Classic Startup Volume



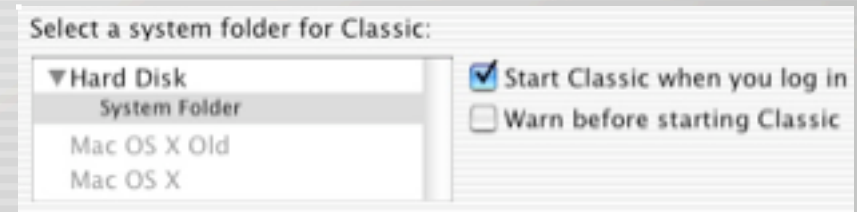
# Classic – Launch Classic

- You have three methods for launching the Classic environment.

- Manually



- Launch at login



- Launch a Classic App



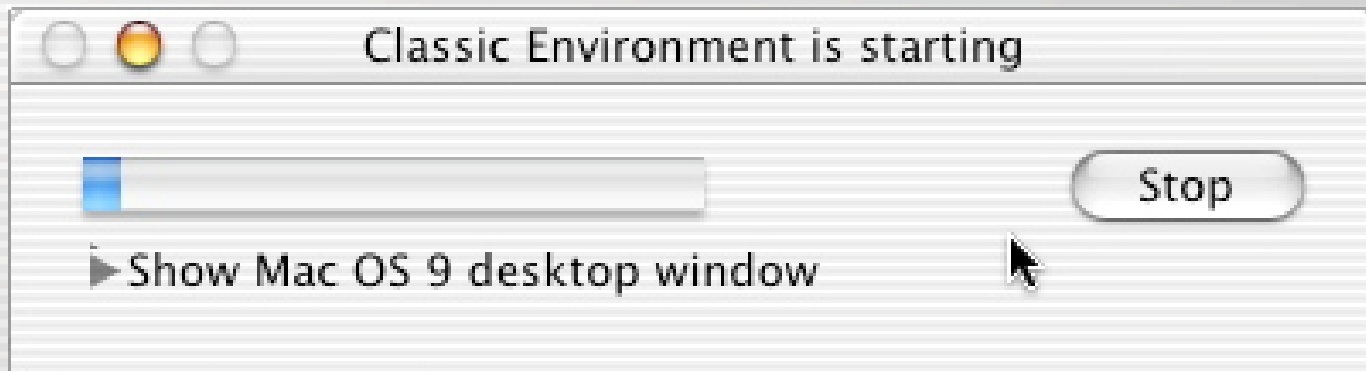
# Classic – Launch Classic

Classic launching with desktop window showing



# Classic – Launch Classic

Classic launching with desktop window hidden



# Classic – Look & Feel

- **When you launch a Classic app**
  - It bounces in the dock & remains there while the application is running



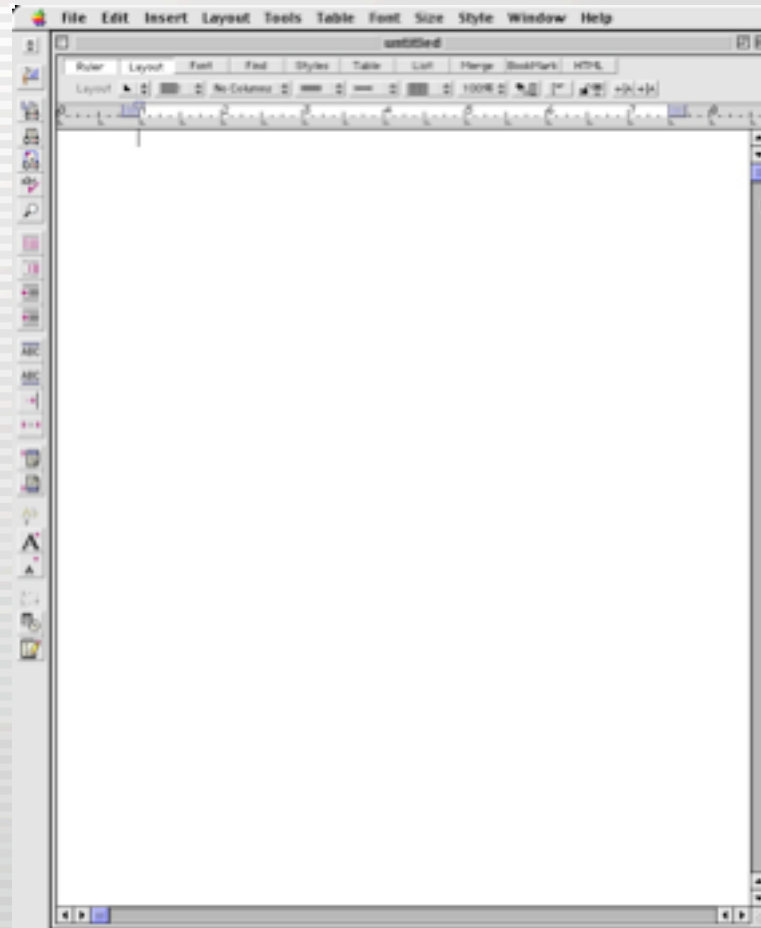
- But when it is active:
  - All menus switch and the menu bar switch to Mac OS 9 Platinum appearance.



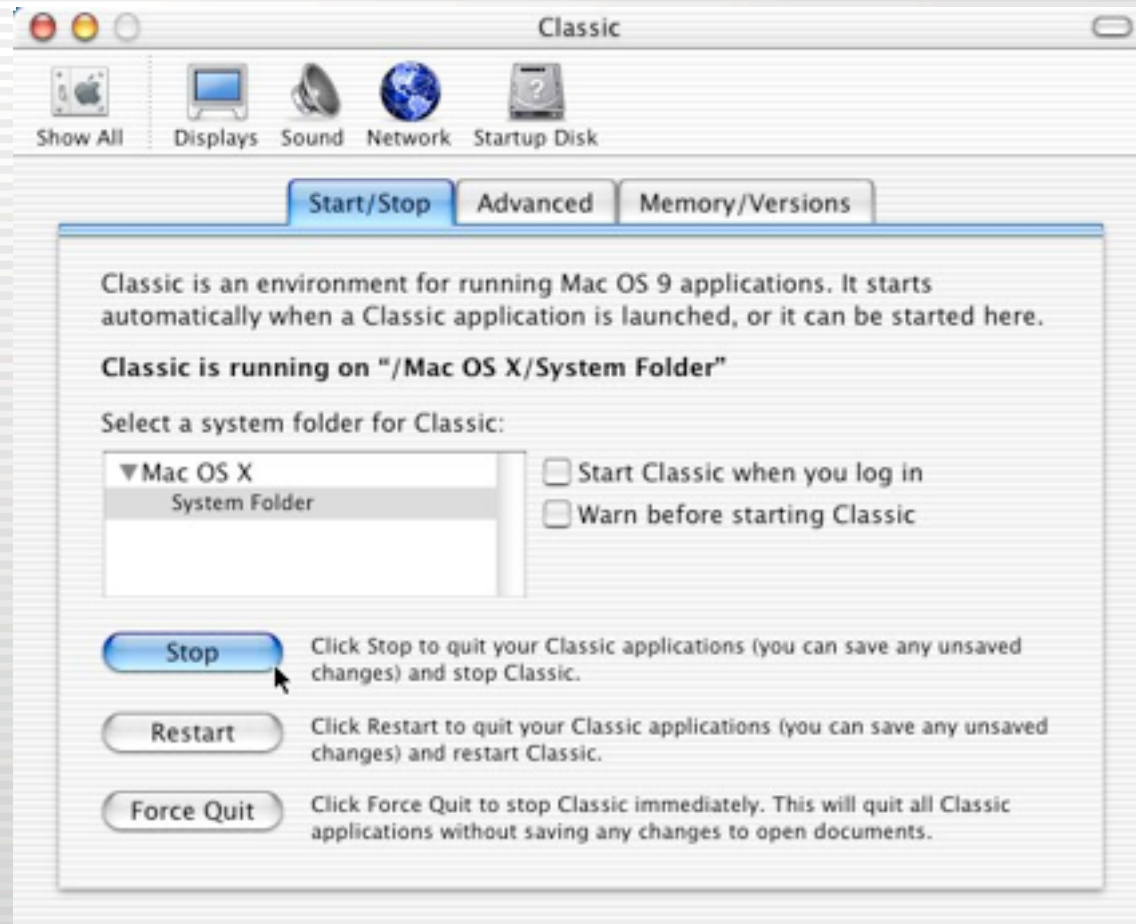
- Switching between the Mac OS 9 & Mac OS X interfaces can cause some confusion

# Classic – Look & Feel

## Classic application WordPerfect 3.5e

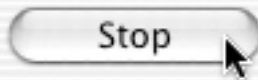


# Classic – Stop & Force Quit



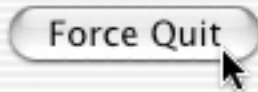
# Classic – Stop & Force Quit

- **Stop Classic**



Click Stop to quit your Classic applications (you can save any unsaved changes) and stop Classic.

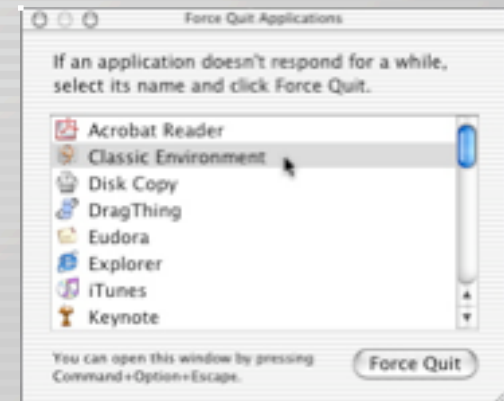
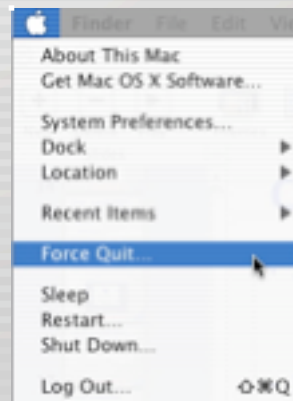
- **Force Quit**



Click Force Quit to stop Classic immediately. This will quit all Classic applications without saving any changes to open documents.

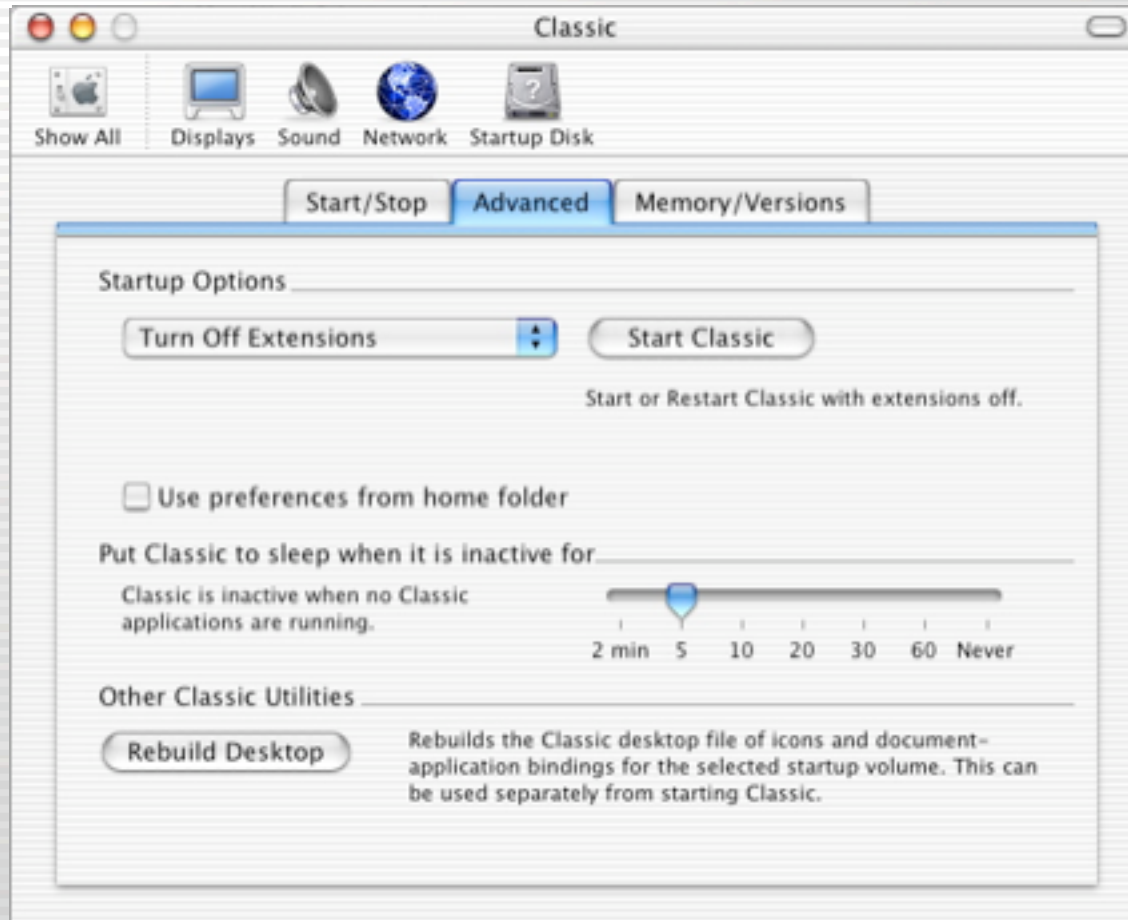
- **Other Methods**

- Using Apple Menu
- Using Keyboard Shortcut





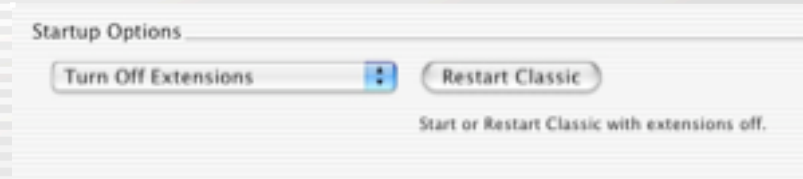
# Classic – Advanced



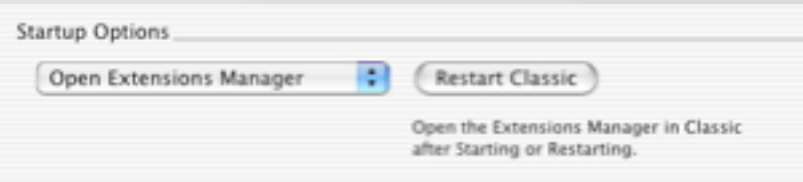
# Classic – Advanced

- **Startup Options**

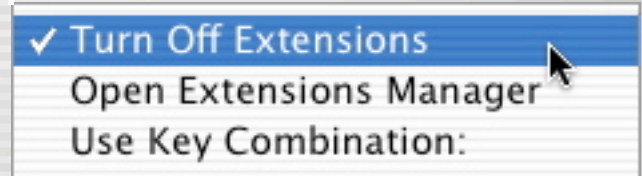
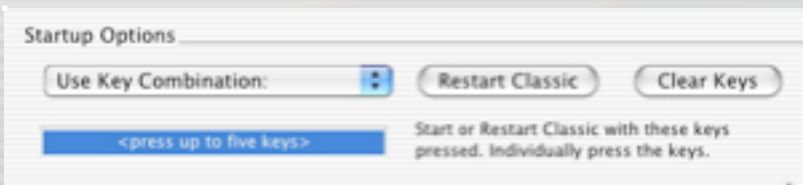
- **Turn Off Extensions**



- **Open Extensions Manager**



- **Use Keyboard Combination**



# Classic – Advanced

- **Startup Options**

- **Use Preferences in home folder**

Use preferences from home folder

- **Put Classic sleep if it is inactive for**

Put Classic to sleep when it is inactive for \_\_\_\_\_

Classic is inactive when no Classic applications are running.

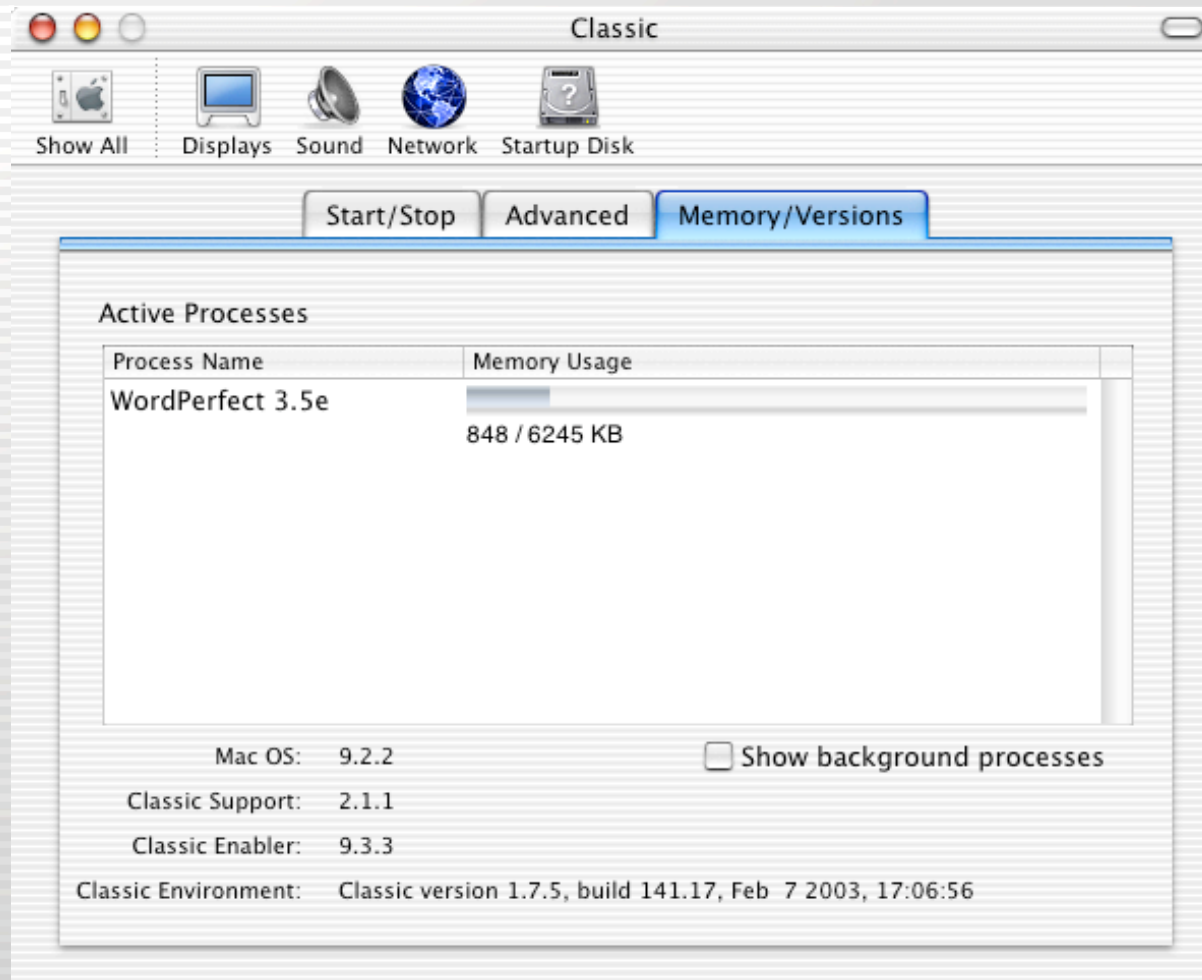
2 min 5 10 20 30 60 Never

- **Other Classic Utilities – Rebuild Desktop**

Other Classic Utilities \_\_\_\_\_

**Rebuild Desktop** Rebuilds the Classic desktop file of icons and document-application bindings for the selected startup volume. This can be used separately from starting Classic.

# Classic – Memory/Versions



# Classic – Memory/Versions

- **Memory**

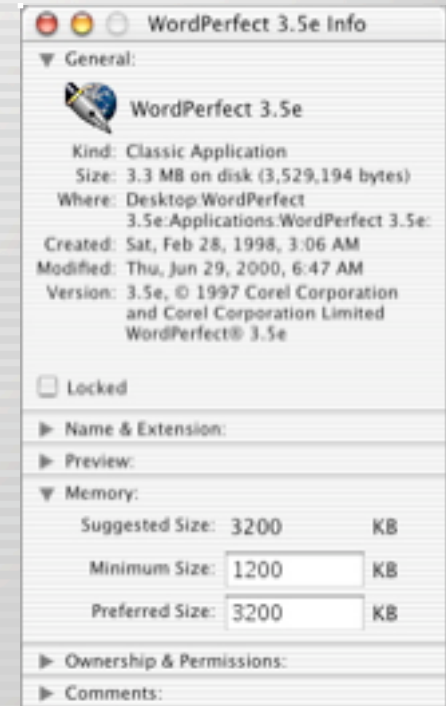
- **Active Processes**

Process Name	Memory Usage
WordPerfect 3.5e	830 / 6245 KB

- **Adjusting Application Memory**

- **Versions**

Mac OS:	9.2.1	<input checked="" type="checkbox"/> Show background
Classic Support:	2.1.1	
Classic Enabler:	9.3.3	
Classic Environment:	Classic version 1.7.5, build 141.17, Feb 7 2003, 17:06:56	



# Dual Booting



# Dual Booting – What is it?

- **Starting up off multiple OS's**
  - Mac OS 9
  - Mac OS X
- **Why?**
  - **Compatibility & Speed**
  - **Learning Mac OS X**
- **Note, this is a temporary solution**
  - **Upgrade peripheral(s) or software**
  - **Or use alternate software**

# Dual Booting – Switching OS's

- Switching between OS's...

- In Mac OS X

- Startup Disk

- Located in System Preferences



- In Mac OS 9

- Startup Disk

- Located in Control Panels



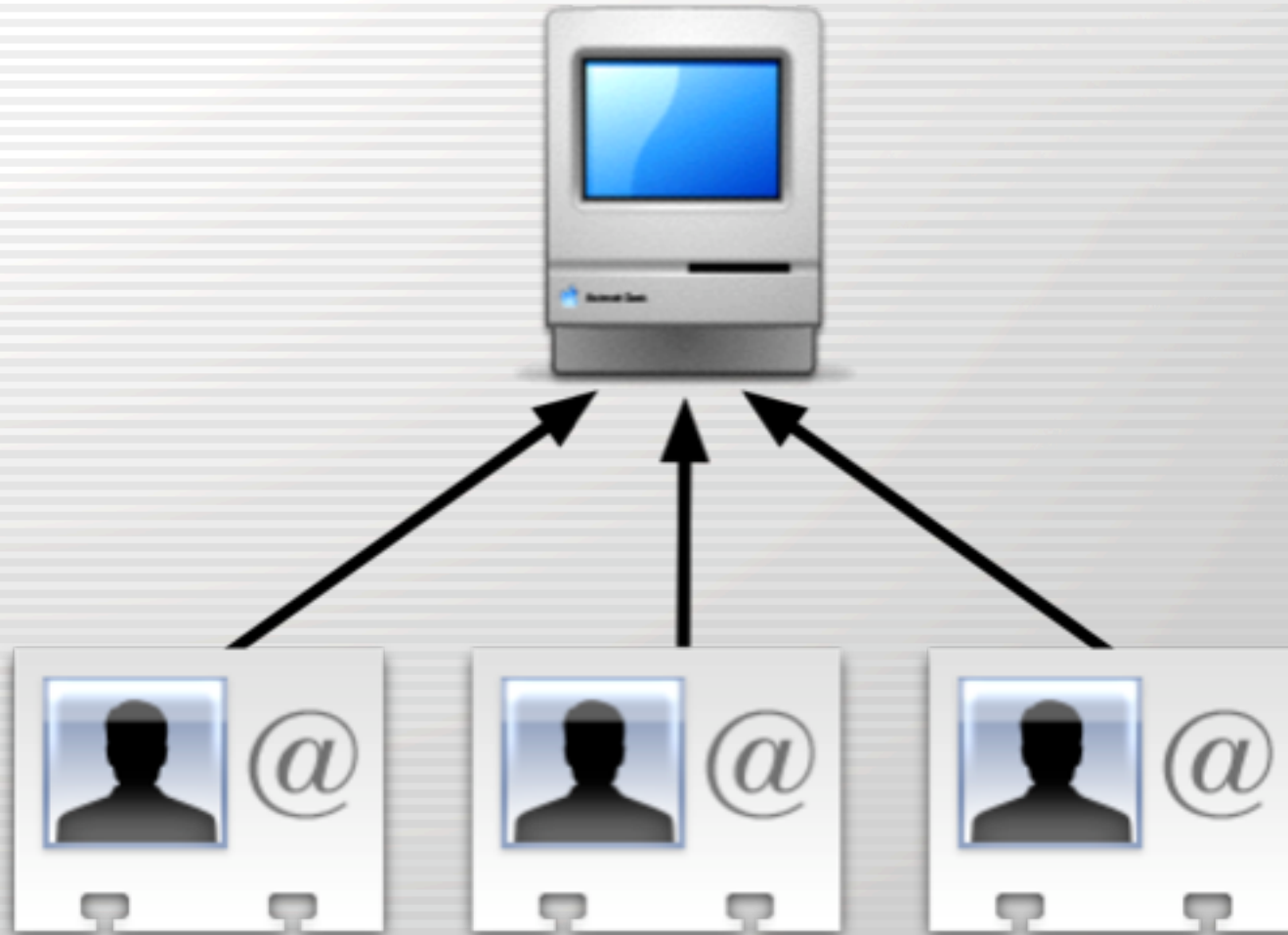


# Dual Booting – Switching OS's

- Or use Startup Manager (aka Boot Picker)
  - Hold down the Option key on startup
  - The following screen will display:

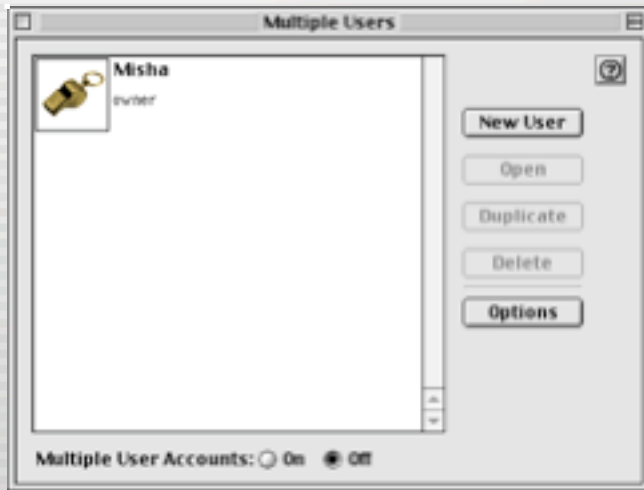


# Multiple Users



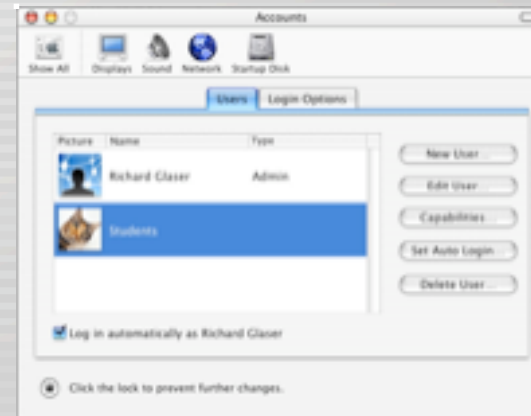
# Multiple Users – Mac OS 9

- Mac OS 9 used Multiple Users
  - Did a reasonable job of implementation
  - Built on-top a single user OS.
  - Many applications were incompatible

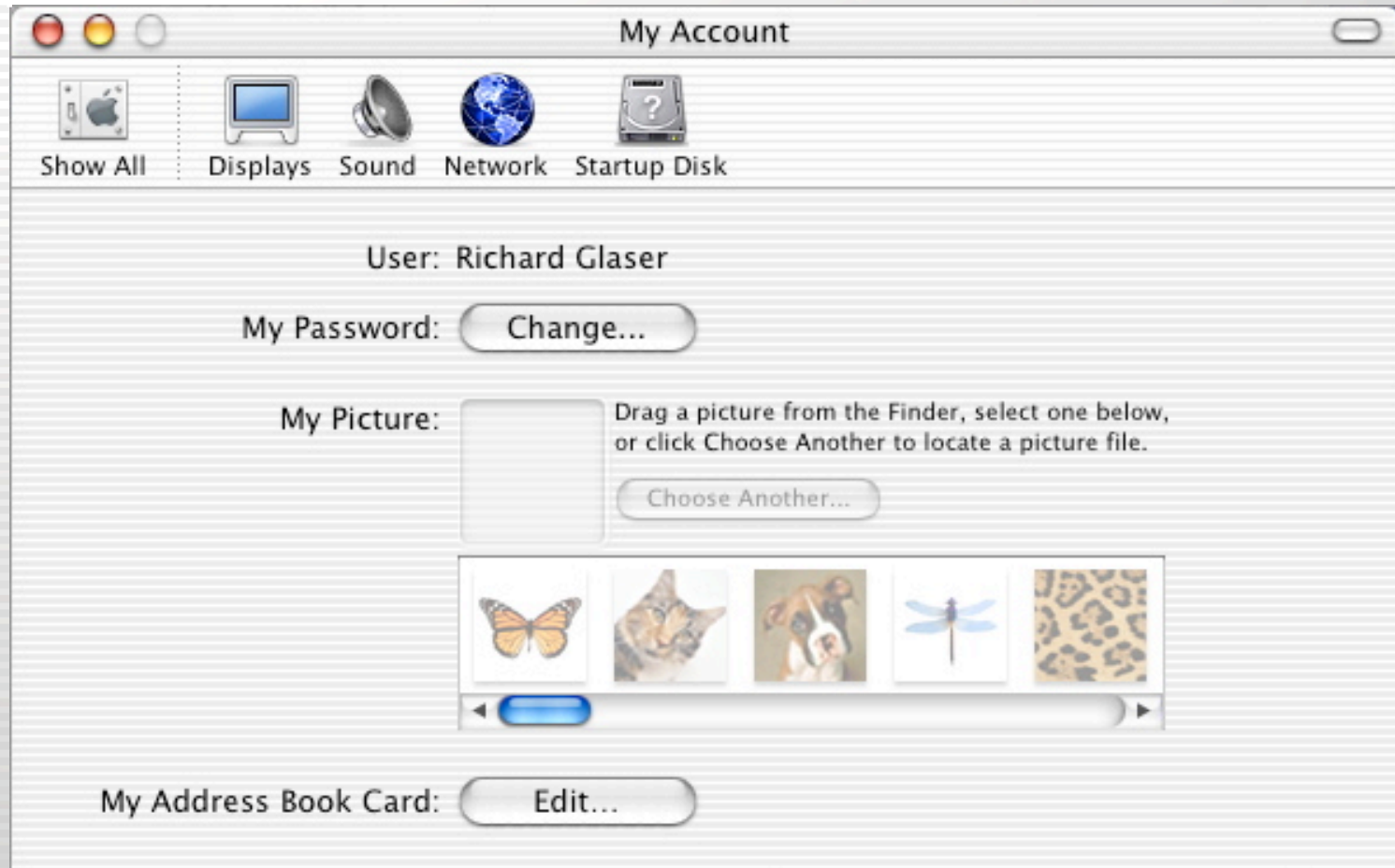


# Multiple Users – Mac OS X

- Mac OS X
  - Built as a Multi-User OS
  - Can be set to force everyone to login
  - Or can be set to auto-login for one user

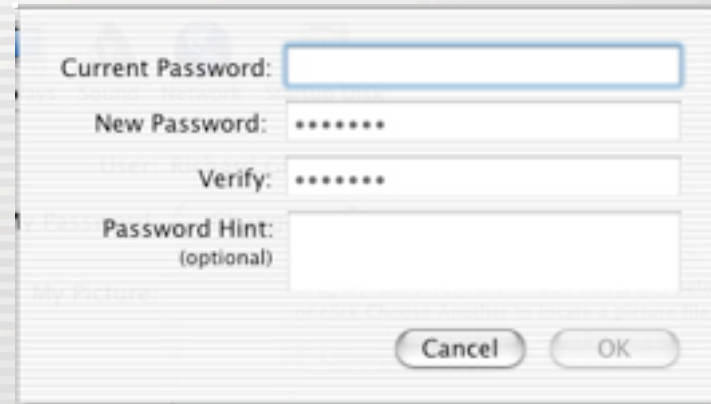
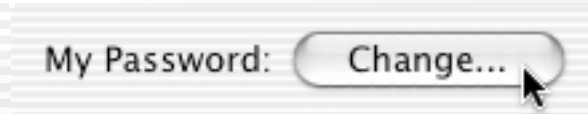


# Mac OS X – My Account

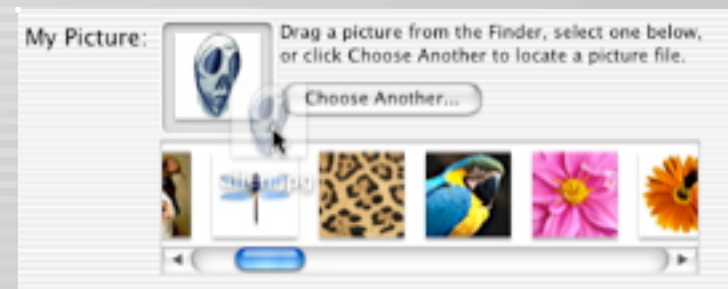
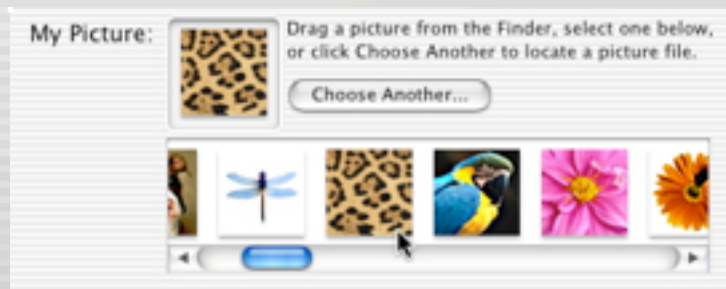


# Mac OS X Users – My Account

- **Change Password**



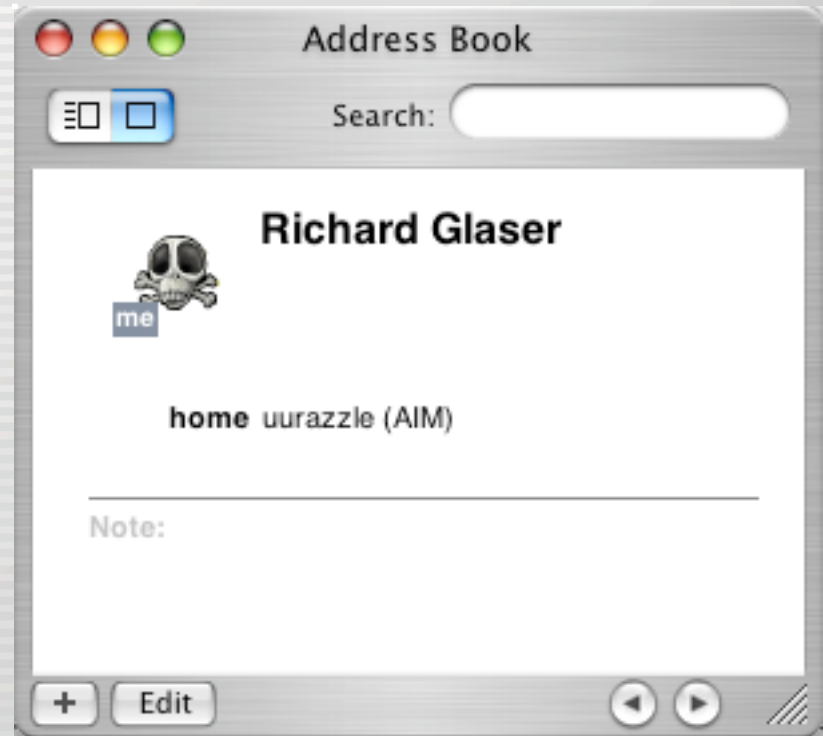
- **My Picture**



# Mac OS X Users – My Account

- **My Address Book**

My Address Book Card:



# Mac OS X Users – Accounts

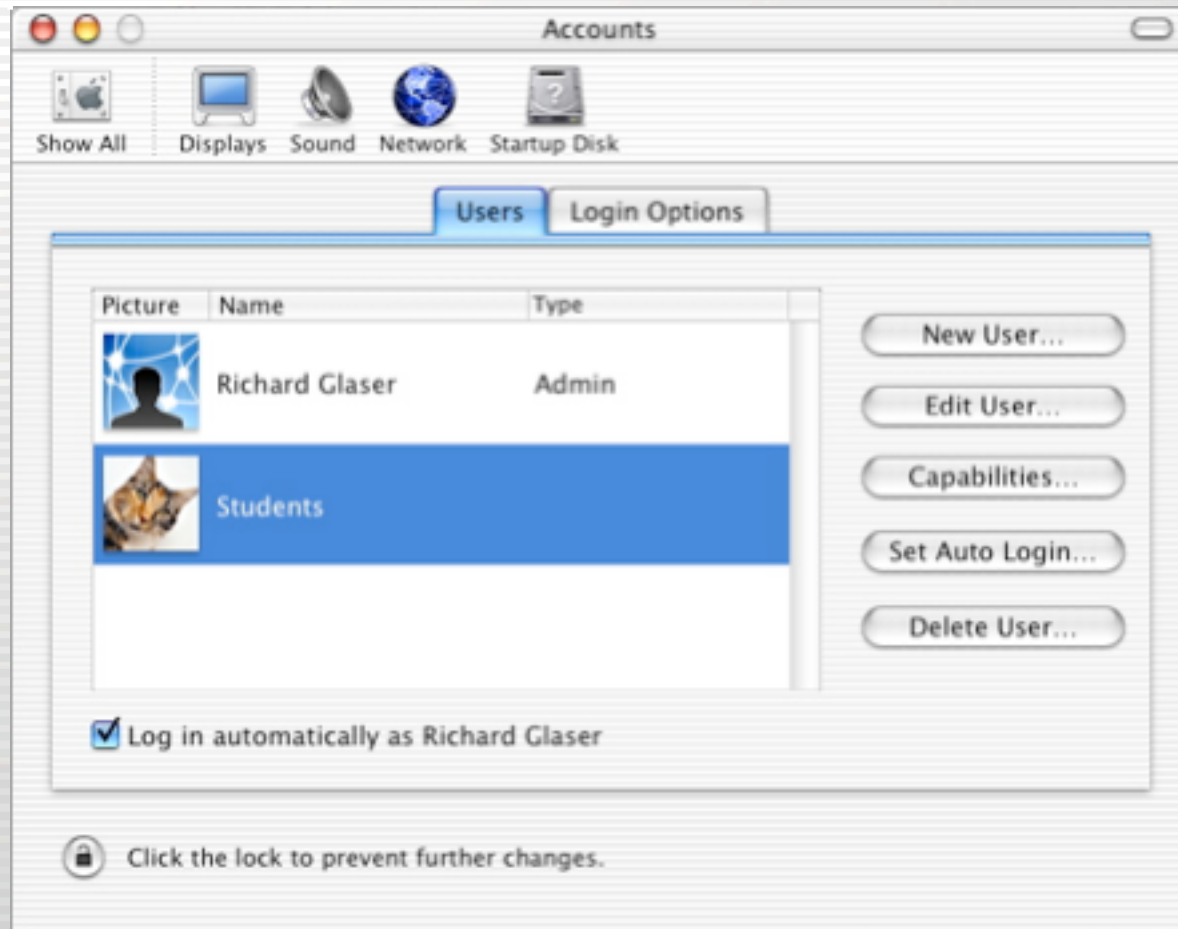
- **Why setup accounts for multiple users?**
  - **Security**
    - Protects users from deleting/modifying others docs
    - Restricts access to the computer to authorized users
  - **User Customization**
    - Desktop Picture, Screen Saver, Dock Settings & Icons
    - Web browser bookmarks and settings
    - Application Settings (Word default font, etc.)
  - **Troubleshooting**
    - Workaround account specific issues



# Mac OS X Users – Accounts

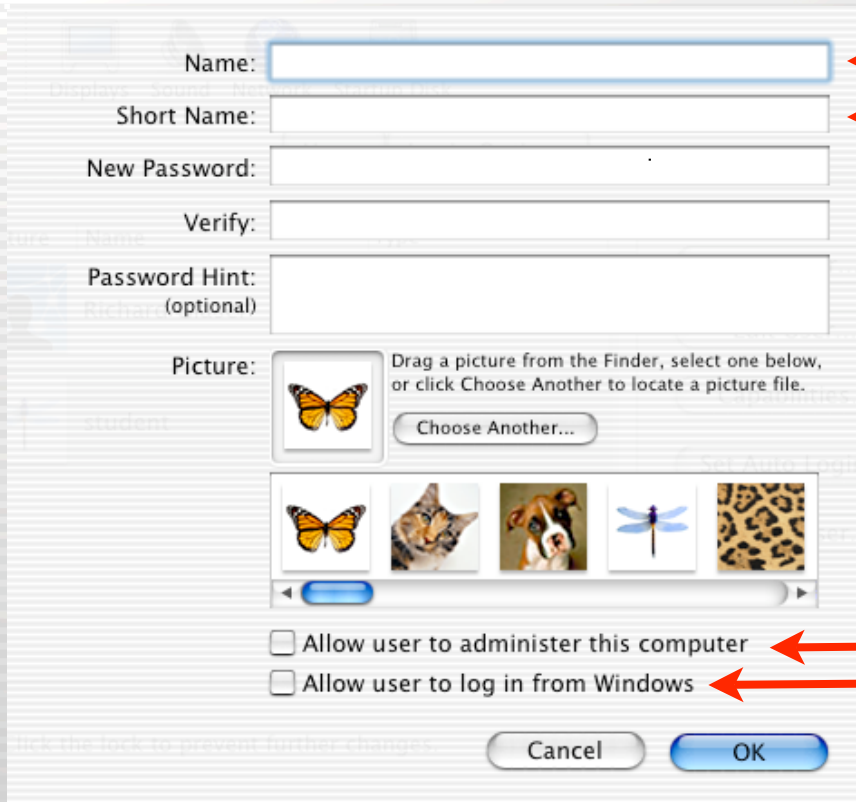
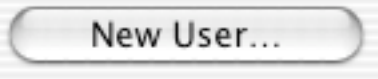
- **Multiple Account Scenarios**
  - **Home**
    - Mother or Father Admin
    - Mother or Father User
    - Kid(s) User(s)
  - **Dept**
    - Dept. Admin
    - Secretary User
    - Student(s) User(s)
  - **Wouldn't recommend using multiple admin's**

# Mac OS X Users – Accounts



# Mac OS X Users – Accounts

- **New User**



The image shows the 'New User' dialog box in Mac OS X. It contains the following fields and options:

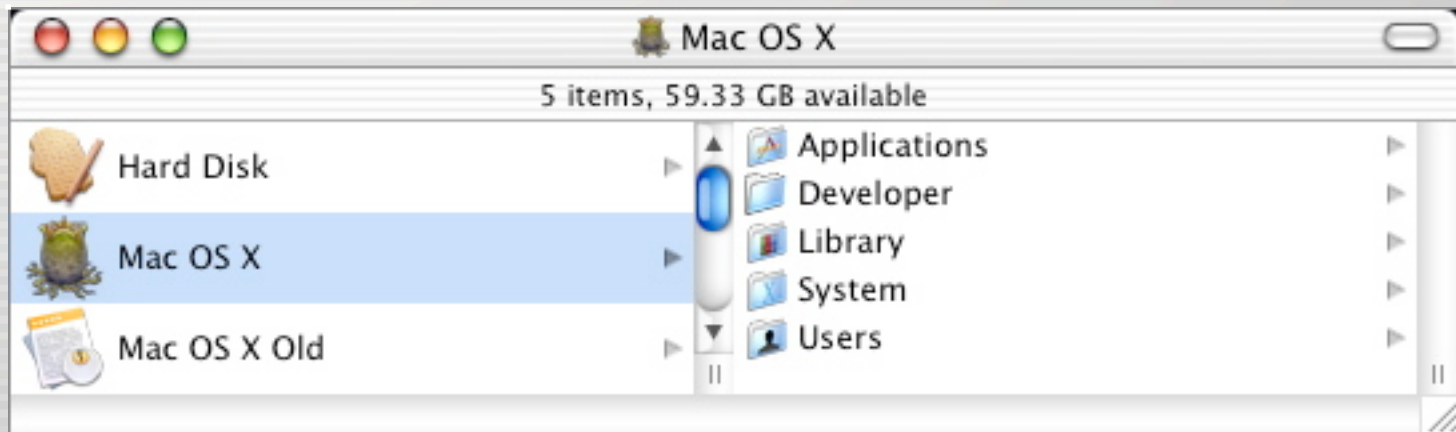
- Name:** A text field with a blue border, containing the text 'John Doe'.
- Short Name:** A text field containing the text 'john'.
- New Password:** A text field.
- Verify:** A text field.
- Password Hint (optional):** A text field.
- Picture:** A section with a 'Choose Another...' button and a row of five picture thumbnails: a butterfly, a cat, a dog, a dragonfly, and a leopard print.
- Permissions:** Two checkboxes: 'Allow user to administer this computer' and 'Allow user to log in from Windows', both of which are unchecked.
- Buttons:** 'Cancel' and 'OK' buttons at the bottom.

← **Name = John Doe**  
← **Short Name = john**

← **Administrator Privileges**  
← **Windows User Access**  
**With File Sharing**

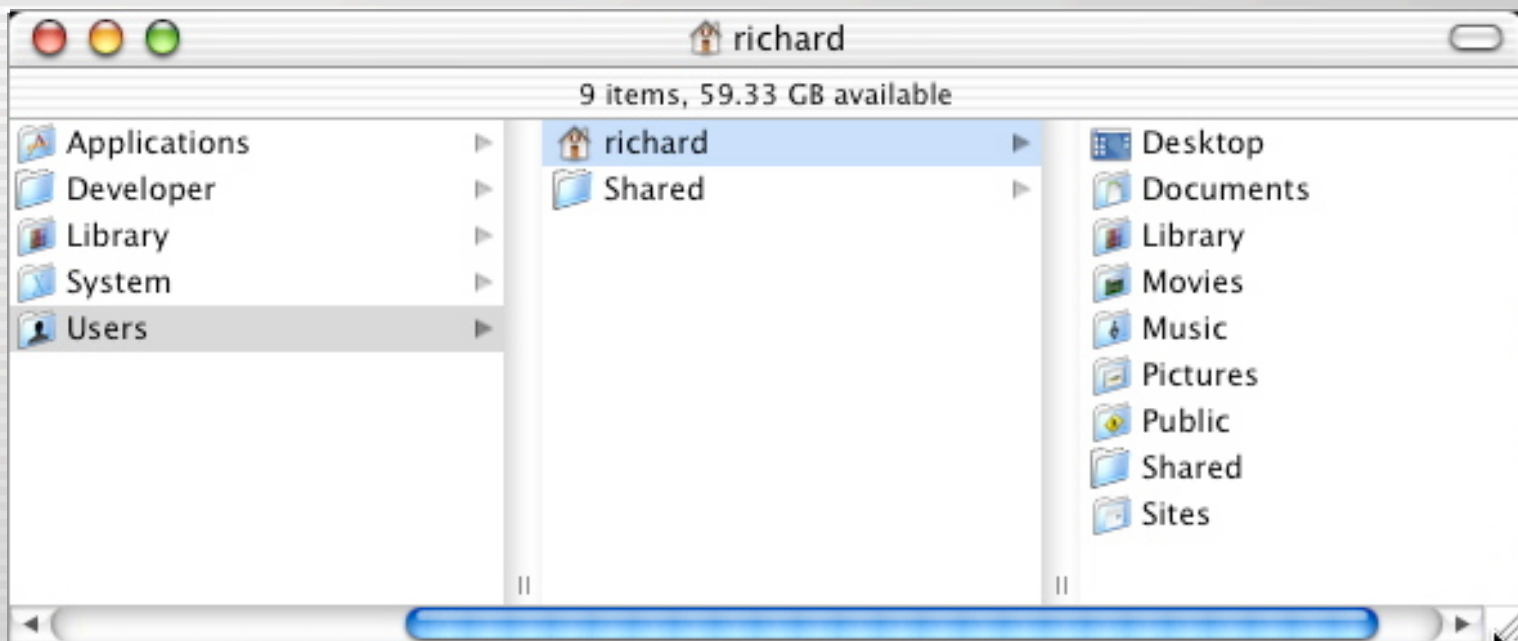
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - Can install programs into the /Applications folder.
  - This is the main shared location used by users for launching applications.



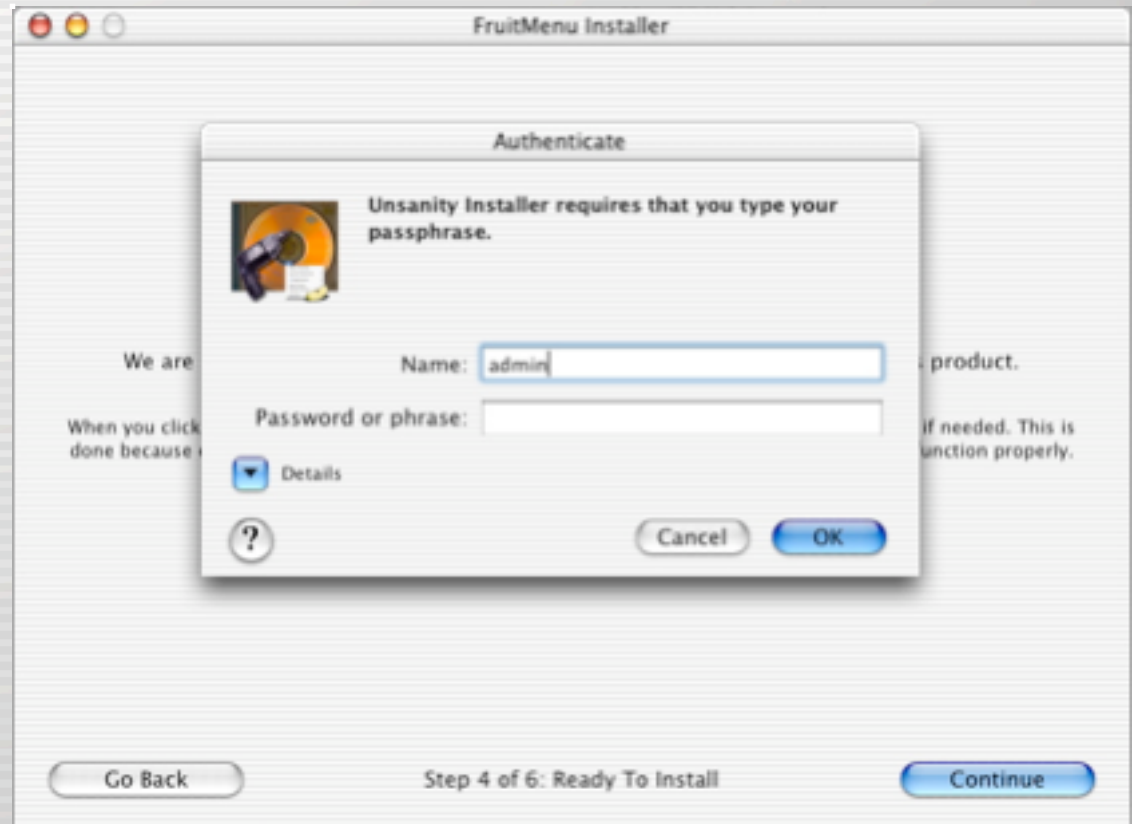
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Non-Admin Users can install/use Apps in their home folder, if it does require Admin rights.**



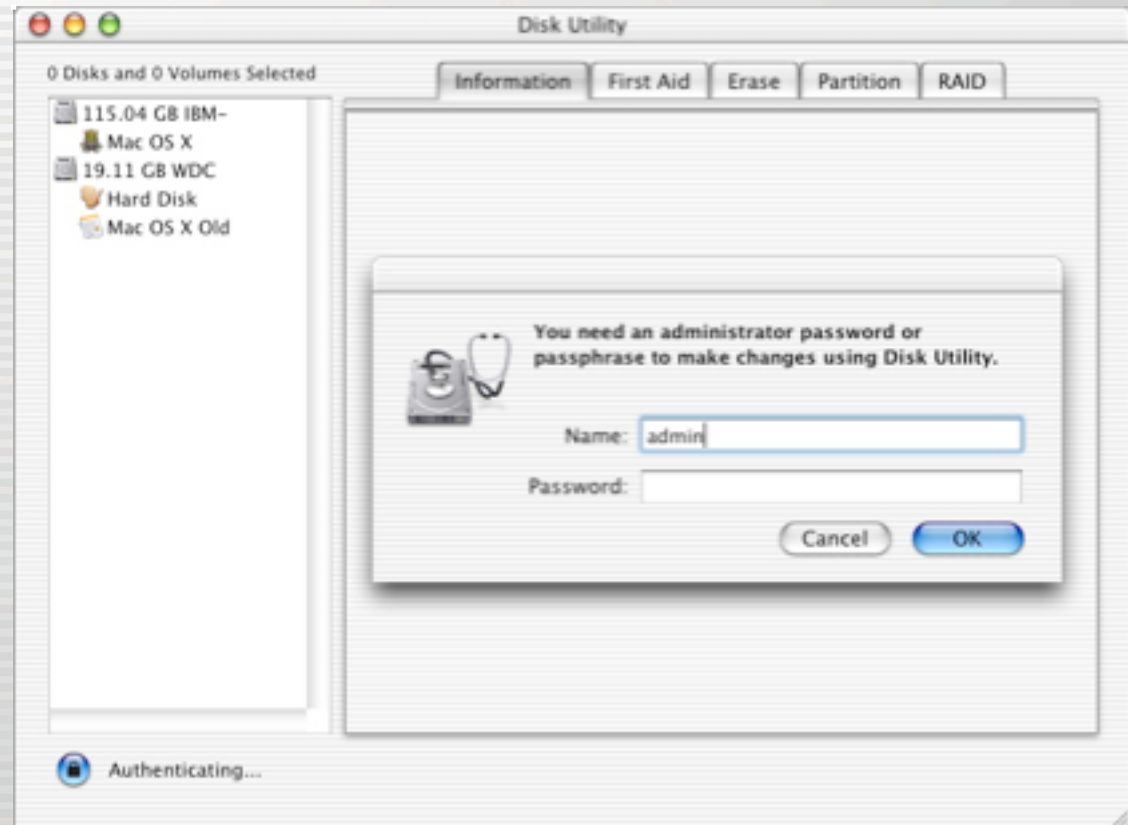
# Mac OS X Users – Accounts

- Administrative Accounts – Installers Ex.
  - FruitMenu



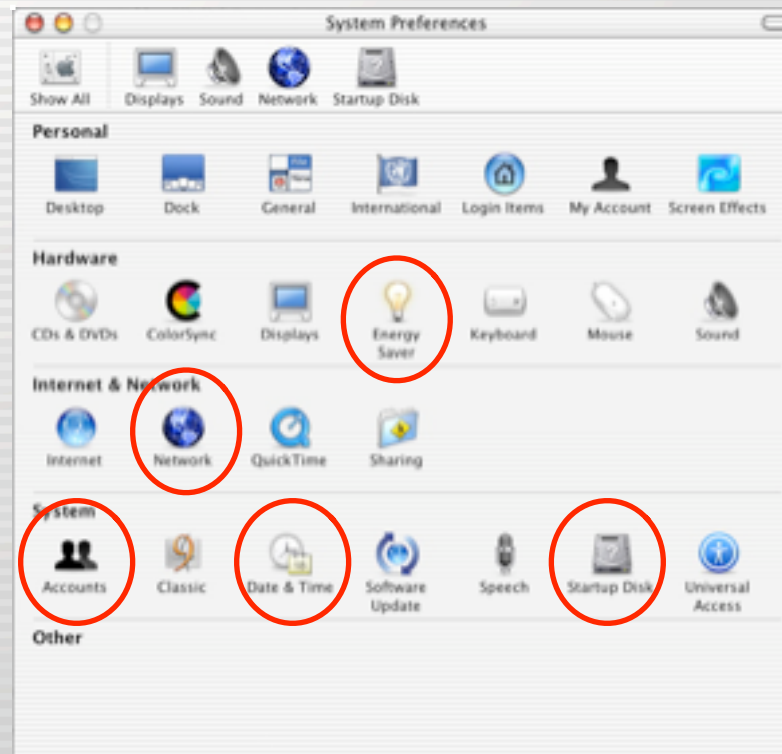
# Mac OS X Users – Accounts

- Administrative Accounts – Software Ex.
  - Disk Utility



# Mac OS X Users – Accounts

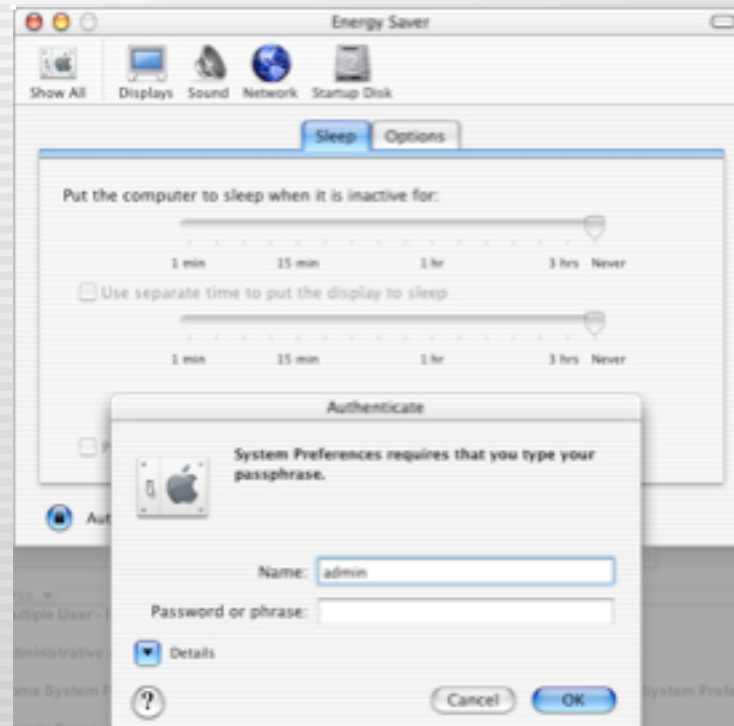
- **Administrative Accounts**
  - Some System Preferences require admin





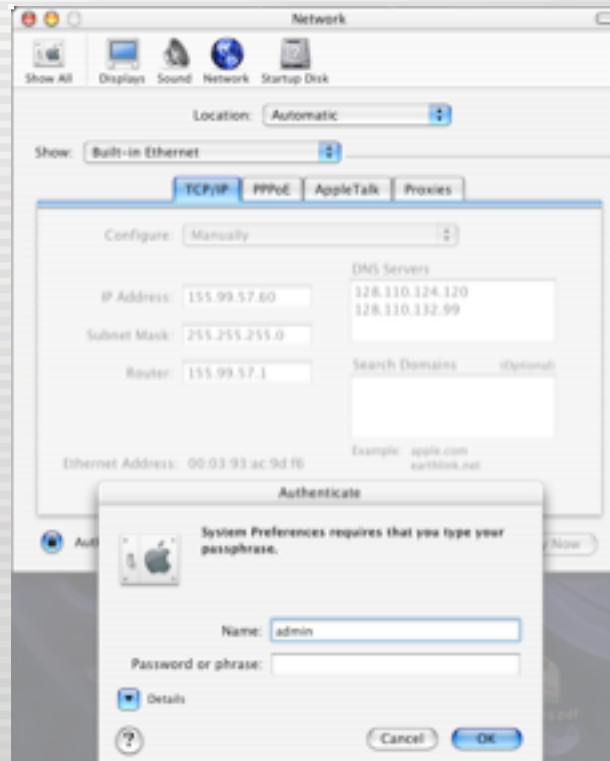
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Energy Saver requires an Admin Account**



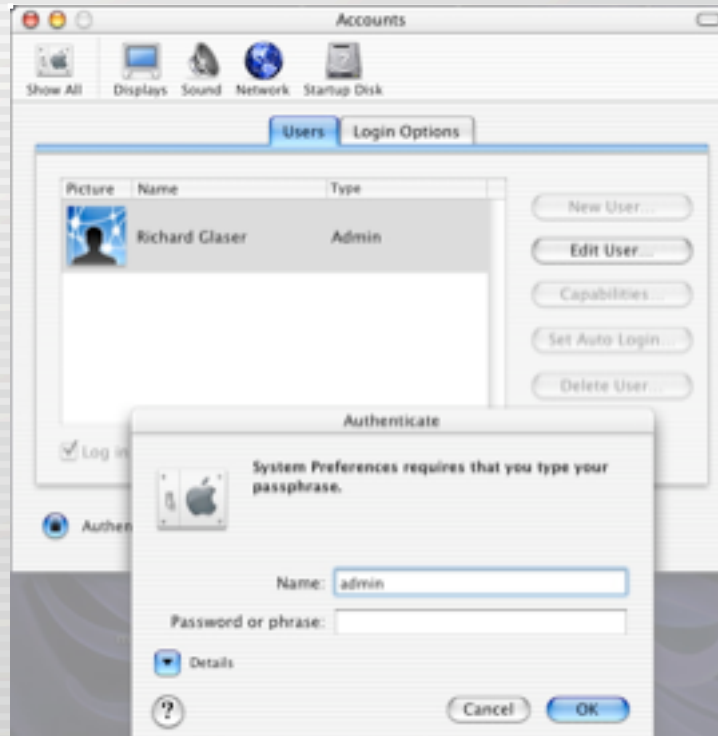
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - Network requires an Admin Account



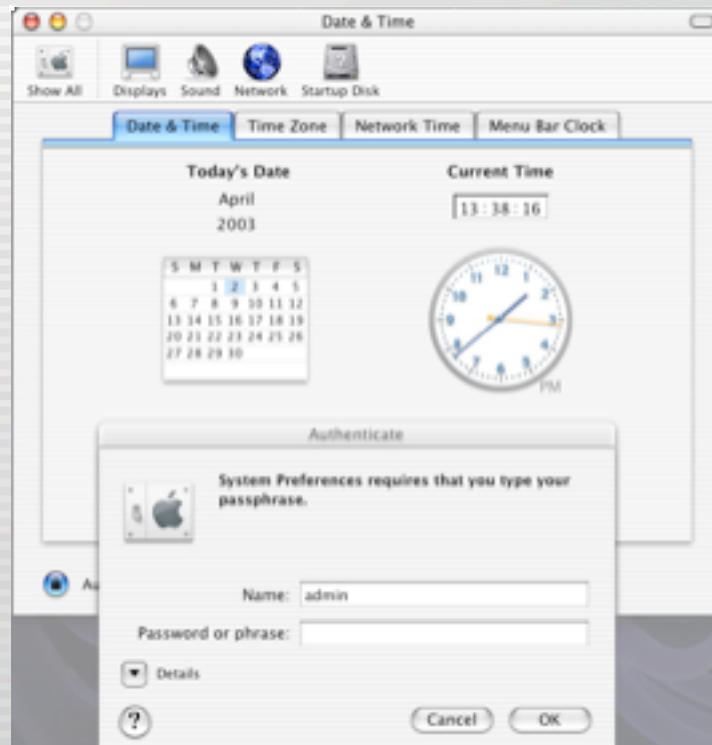
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - Accounts requires an Admin Account



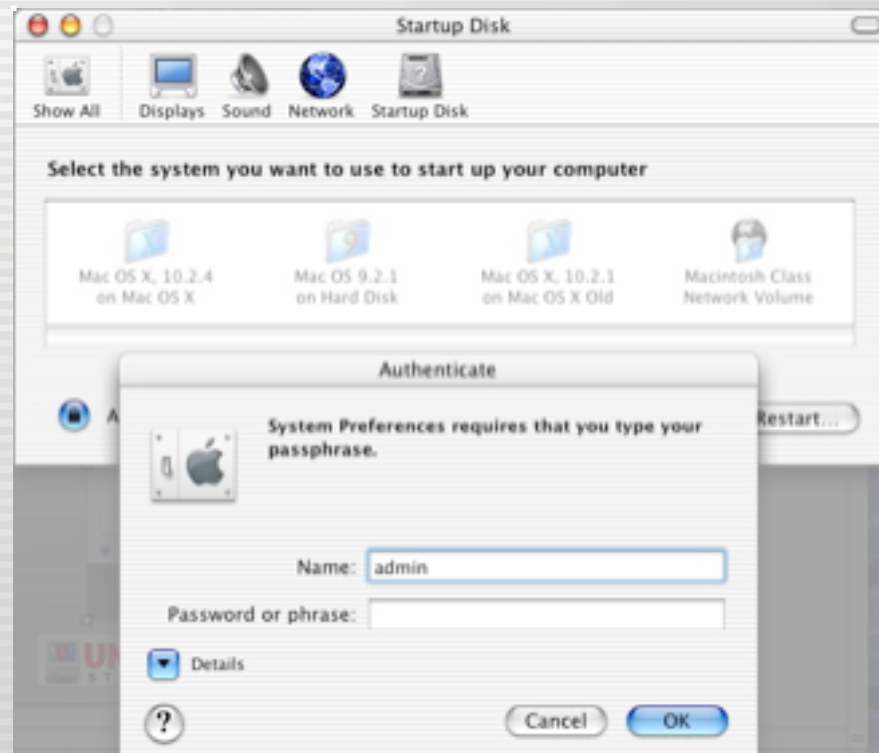
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Date & Time requires an Admin Account**



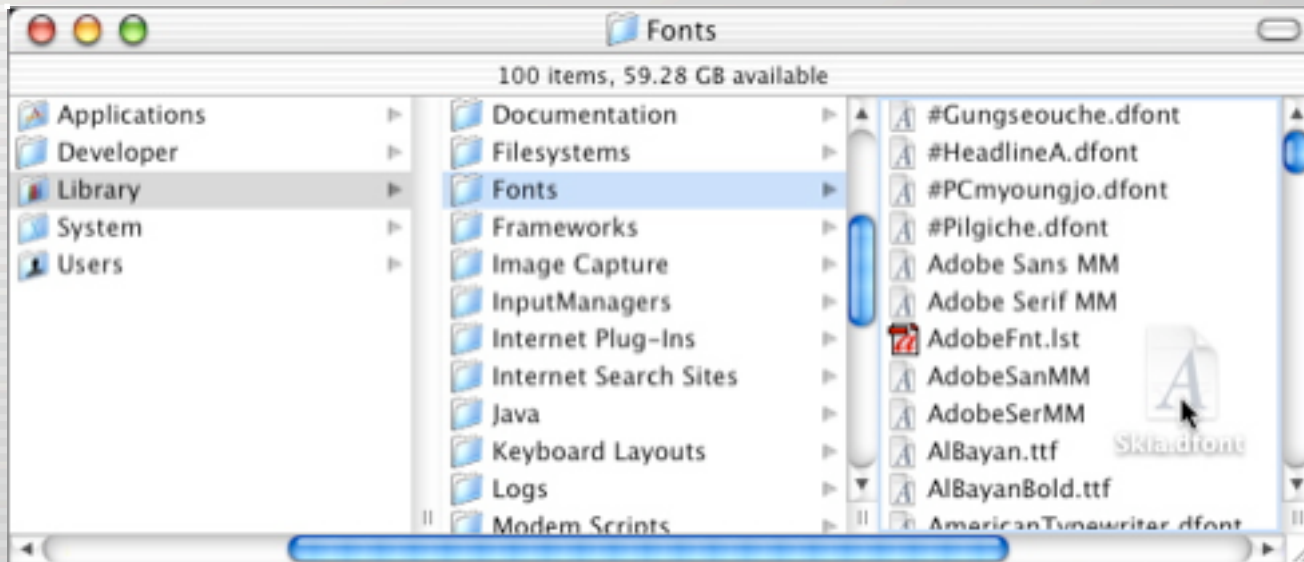
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Startup Disk requires an Admin Account**



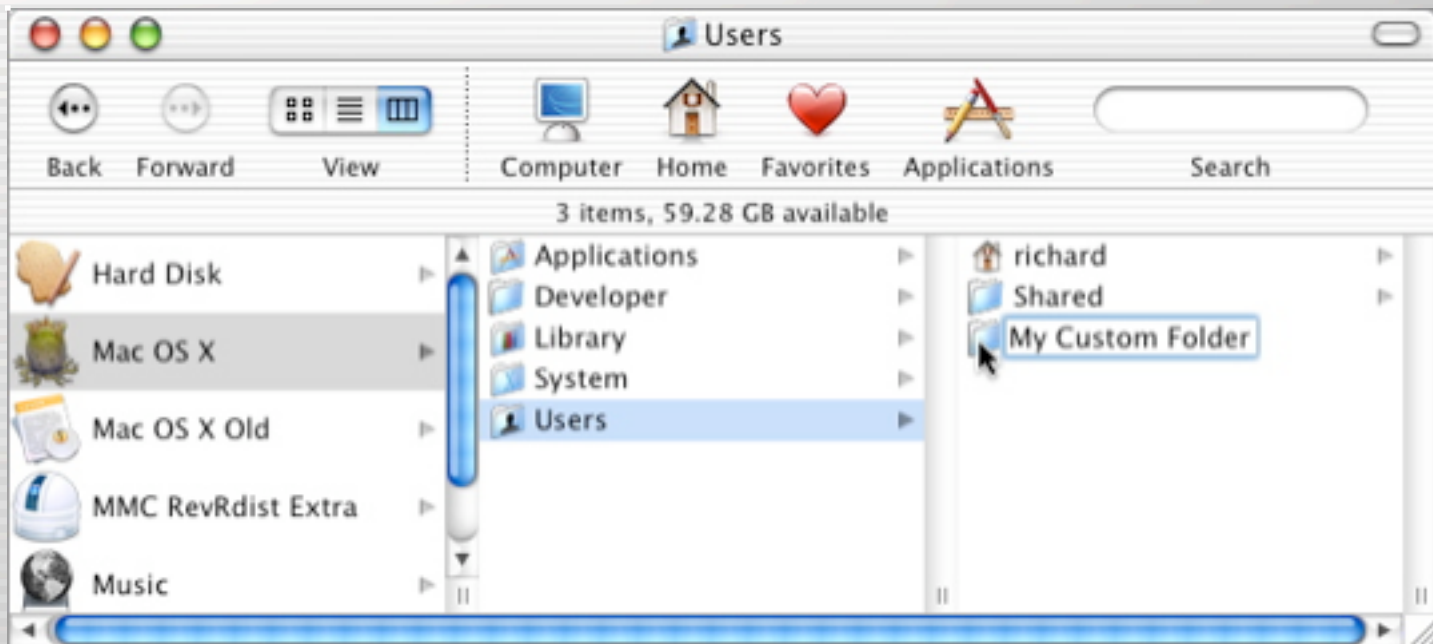
# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Other notable privileges**
    - **Adding fonts** to /Library/Fonts folder that all users can access.



# Mac OS X Users – Accounts

- **Administrative Accounts**
  - **Other notable privileges**
    - Create & delete folders outside user folder



# Mac OS X Users – Accounts

- Capabilities

Capabilities...

Select what student can do with this computer

Use Simple Finder

This user can:

Remove items from the Dock       Change password  
 Open all System Preferences       Burn CDs or DVDs

Use only these applications:

To add other applications, drag them the list or click Locate.

Allow	Application
<input checked="" type="checkbox"/>	▶ Applications
<input checked="" type="checkbox"/>	▶ Utilities
<input checked="" type="checkbox"/>	▶ Applications (Mac OS 9)
<input checked="" type="checkbox"/>	▶ Others

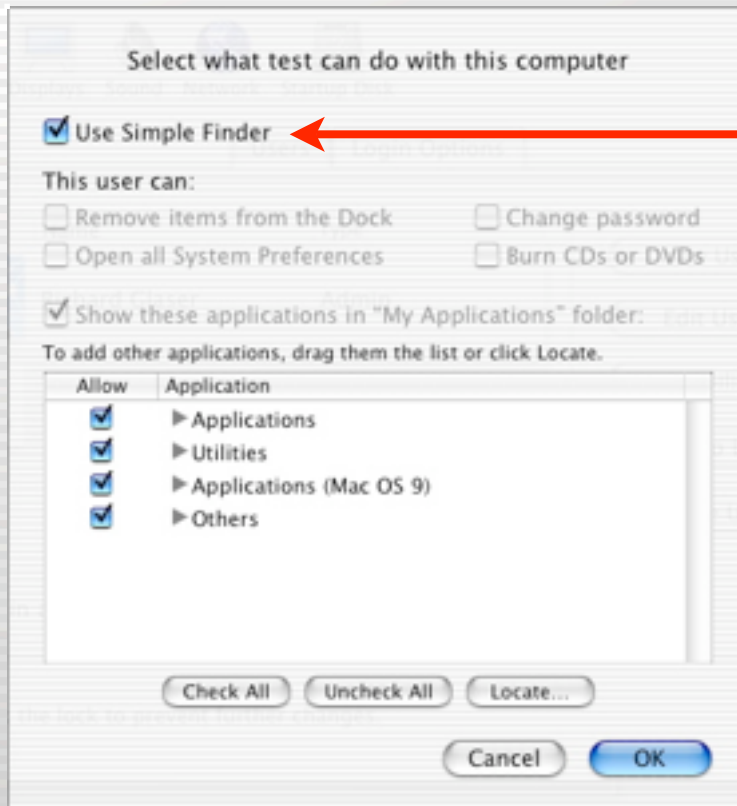
Check All    Uncheck All    Locate...

Cancel    OK



# Mac OS X Users – Accounts

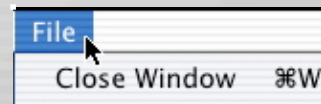
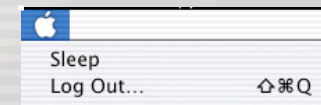
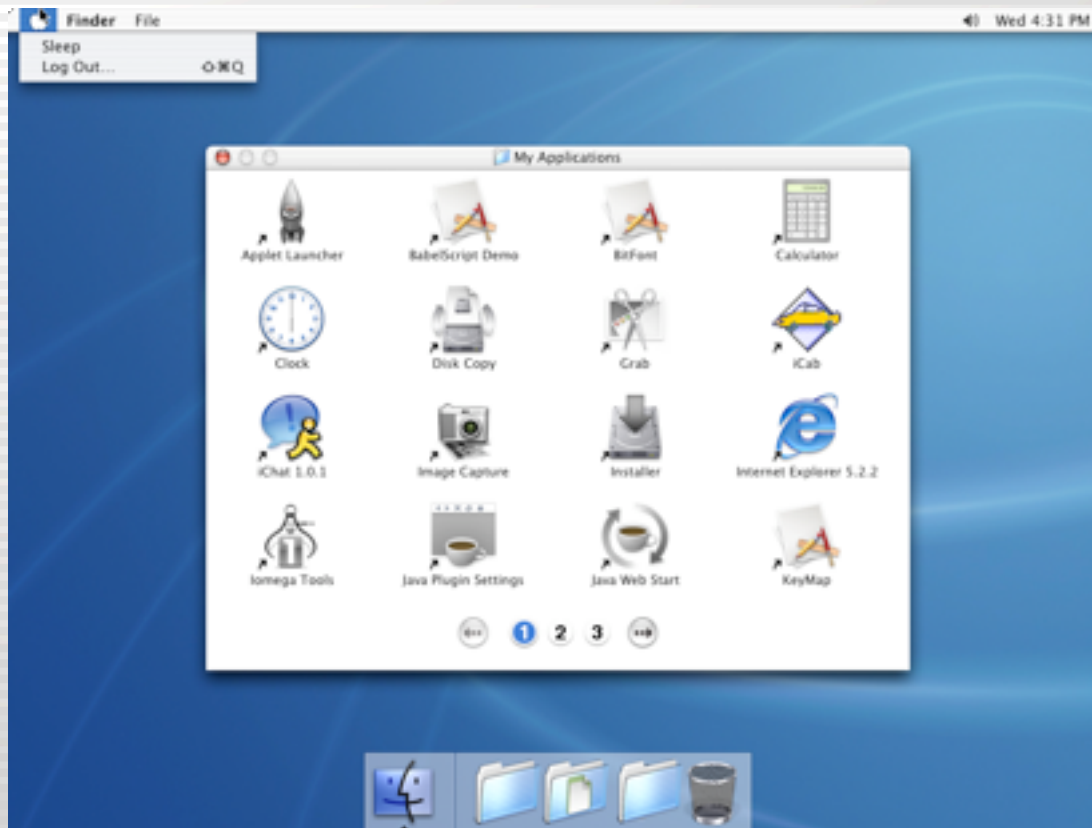
- Capabilities – Simple Finder



Select Simple Finder

# Mac OS X Users – Accounts

- Capabilities – Simple Finder



# Mac OS X Users – Accounts

- Capabilities – Other Restrictions

- 
- 

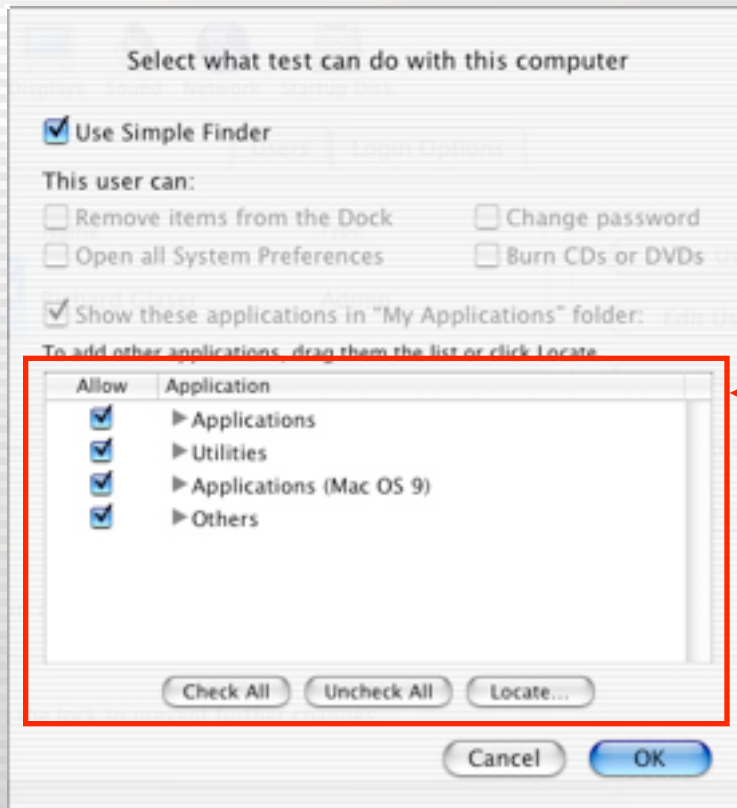
This user can:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Remove items from the Dock  | <input checked="" type="checkbox"/> Change password  |
| <input checked="" type="checkbox"/> Open all System Preferences | <input checked="" type="checkbox"/> Burn CDs or DVDs |

- Remove items from the dock
- Open all System Preferences
- Change password
- Burn CDs or DVDs

# Mac OS X Users – Accounts

- Capabilities – Use only these Applications

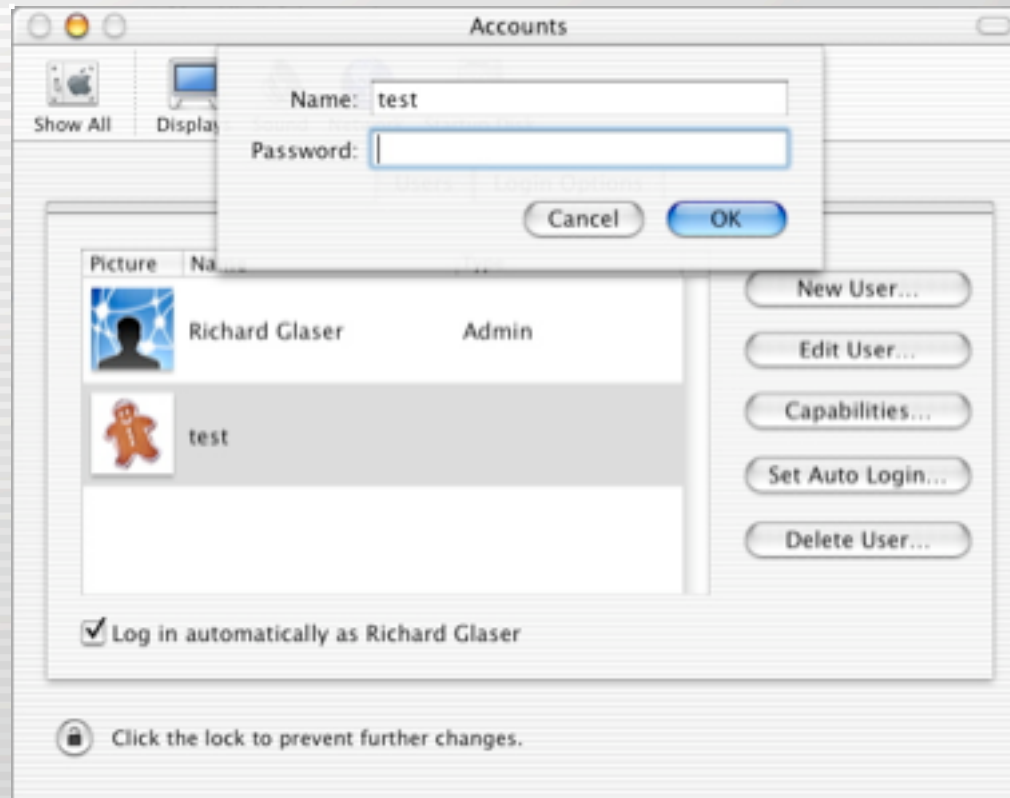


Select Applications this user will have access

# Mac OS X Users – Accounts

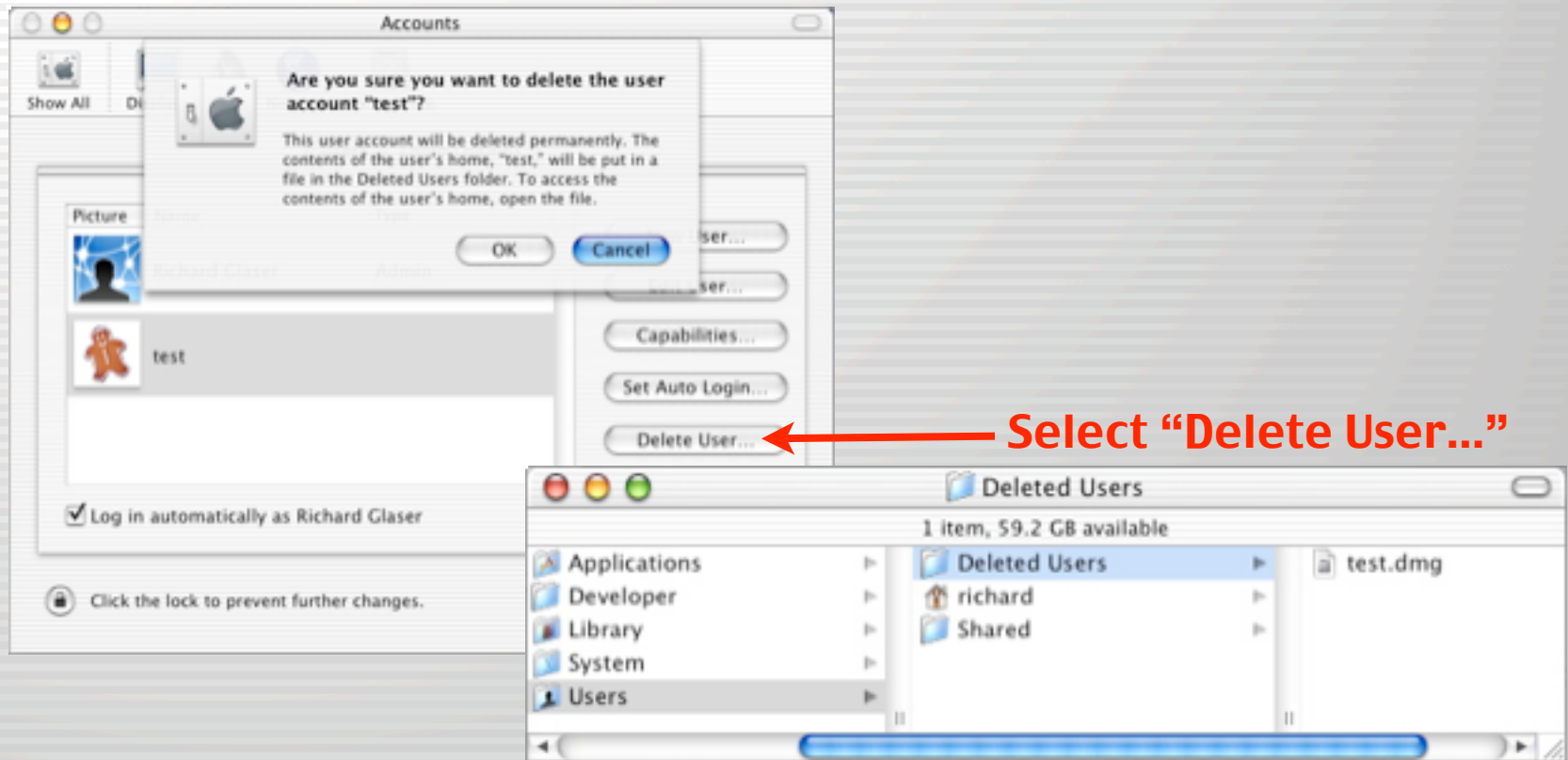
- Set Auto Login...

Set Auto Login...



# Mac OS X Users – Accounts

- Delete User

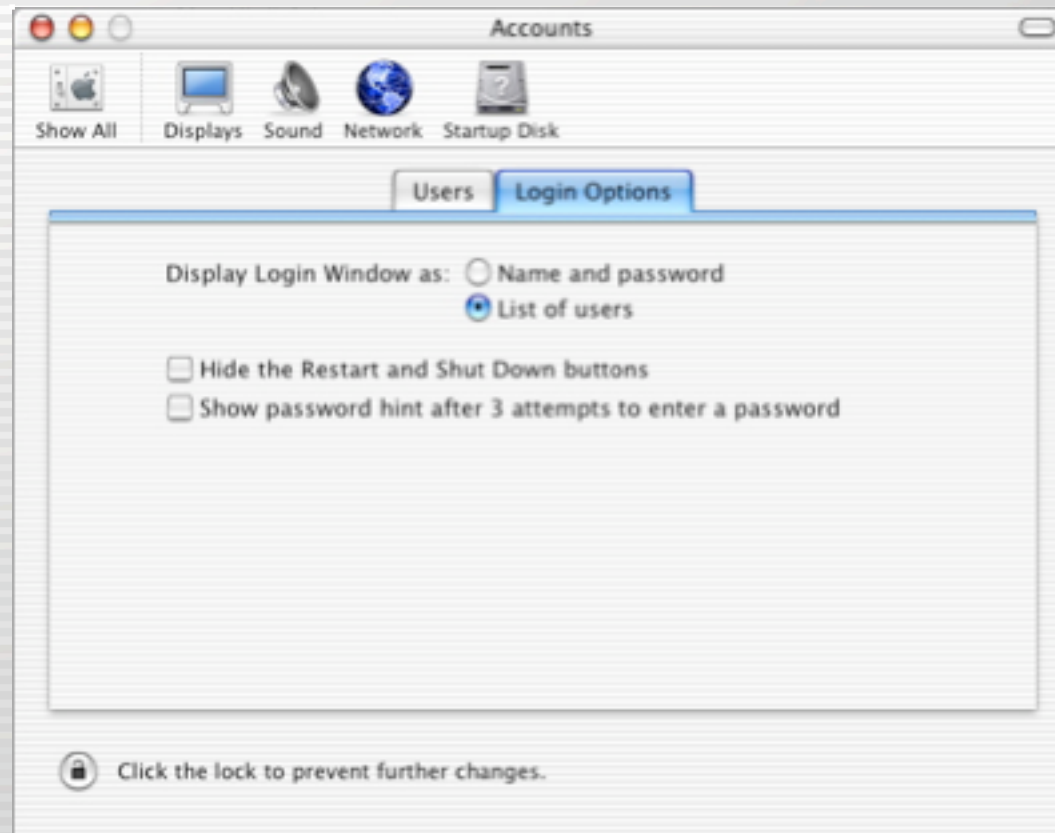


Select "Delete User..."

"Deleted User" Image Backup

# Mac OS X Users – Accounts

- Login Options



# Mac OS X Users – Accounts

- Login Options

Display Login Window as:  Name and password  
 List of users

- Name and Password



← Enter name or short name here



# Mac OS X Users – Accounts

- Login Options

Display Login Window as:  Name and password  
 List of users

- List of Users



Click test icon/name



Then Displays Password Field

# Mac OS X Users – Accounts

- Login Options

Display Login Window as:  Name and password  
 List of users

- List of Users



Select "Go Back"



Then Displays List of Users

# Mac OS X Users – Accounts

- **Login Options**

- Hide the Restart and Shut Down buttons
- Show password hint after 3 attempts to enter a password

- **Other Options – Hide Restart/Shut Down**



**Hide the Restart and Shut Down Buttons**

# Mac OS X Users – Accounts

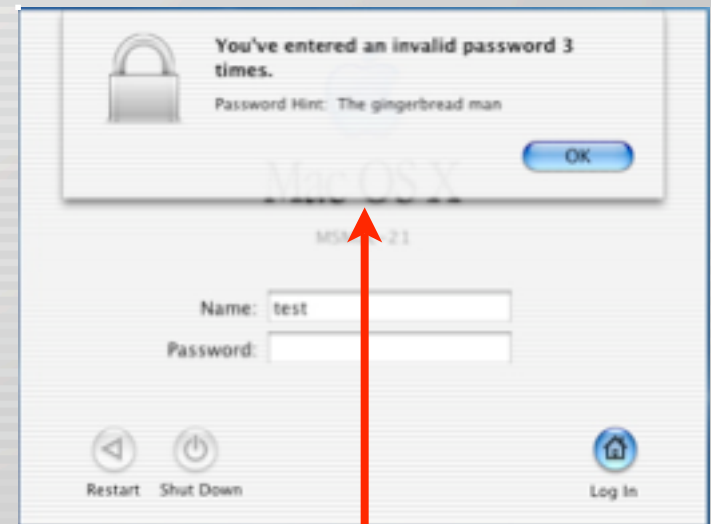
- Login Options

- Hide the Restart and Shut Down buttons
- Show password hint after 3 attempts to enter a password

- Other Options – Show Password Hint

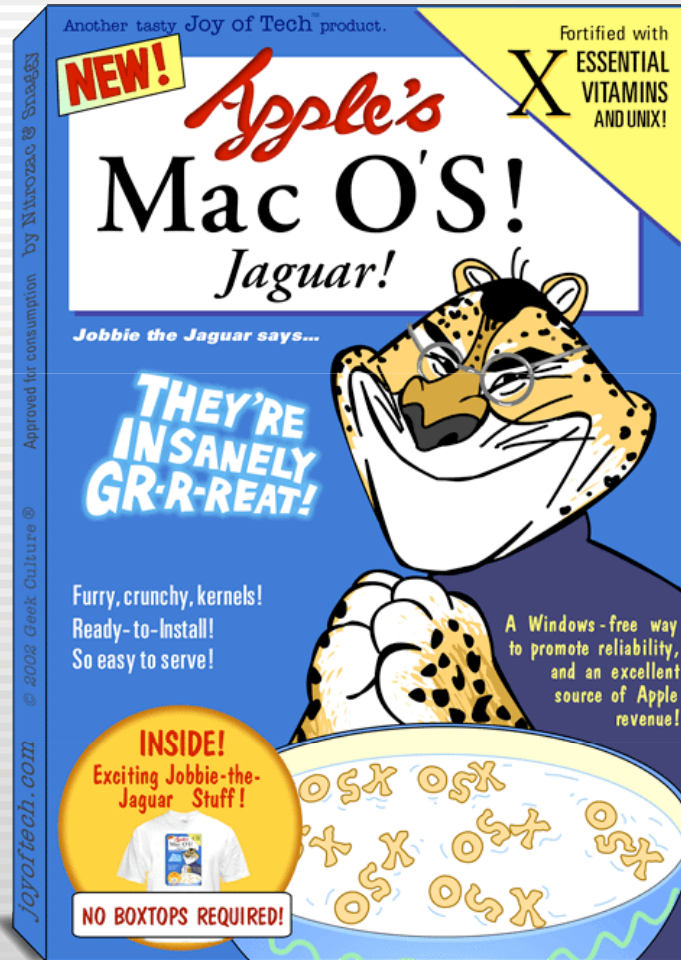


Incorrect password entered three times



Password hint displays

# Contact Information



- Campus Mac Web Site:  
[www.macos.utah.edu](http://www.macos.utah.edu)
- Campus Mac Email:  
[mac@scl.utah.edu](mailto:mac@scl.utah.edu)
- Apple Web Site:  
[www.apple.com](http://www.apple.com)

# More Classes Offered

- **Classes will be offered next semester:**
  - **Mac OS X History & Technology**
  - **Mac OS X Basics**
  - **Mac OS X Intermediate**
  - **Mac OS X Advanced**



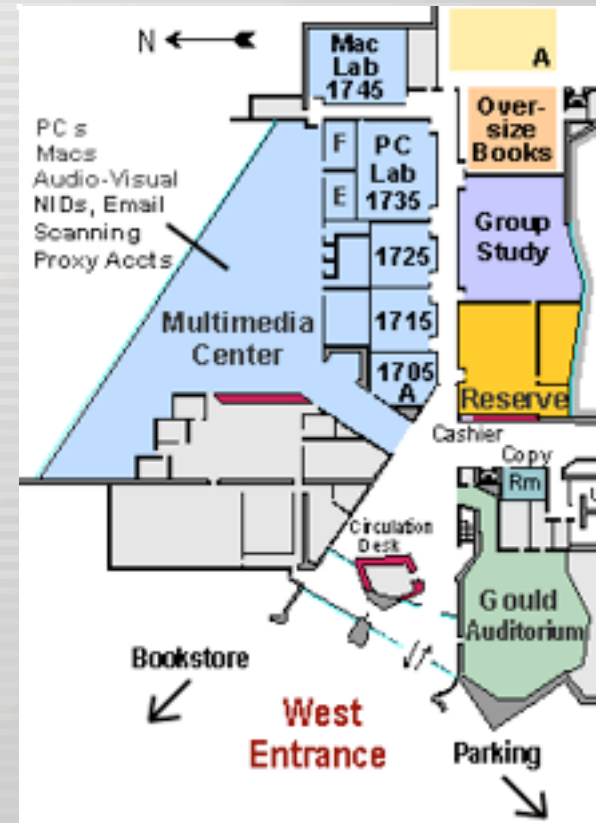
# Apple Seminar

- **Integrating Mac OS X on Campus**

- A joint seminar with Apple and University of Utah

**Thurs, May 1st  
9:00 AM – 4:00 PM**

**University of Utah  
Marriott Library  
Gould Auditorium**



# Apple Seminar

- Integrating Mac OS X on Campus
  - To register, go to campus Mac Support Web Site

[www.macos.utah.edu](http://www.macos.utah.edu)

- Click on “Integrating Mac OS X on Campus” link

-



**Highlight**

-  [www.macosxlabs.org](http://www.macosxlabs.org)  
The communication, collaboration, and instruction web site for the Mac OS X Labs Deployment Initiative.
-  [Events & Seminars](#)  
A list of upcoming Events and Seminars in Utah and surrounding mountain states.
-  [Mac Managers Meeting](#)  
The next Mac Managers Meeting will be held on Wed, Mar 19th @ 1 PM in MMC Room 1725.
-  [Mac OS X Classes](#)  
Interested in free classes teaching you more about Mac OS X?  
Check out the class schedule.
-  [Mac OS X Integration on Campus](#)  
Interested in free seminar sponsored by Apple Computer to be held at the U of U on Thurs-May 1st @ 9:00 Am



# Questions and Answers



# Survey

- **Please fill out survey**
  - **How was the instructor?**
  - **How was the content of the class?**
  - **Have suggestions on improving classes?**
  - **Want to have us teach other classes?**

