A Crash Course in OS X

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Objectives

- To learn some of the basics of the OS X operating system including the use of the login panel, system menus, the file browser, the desktop, and Terminal.
- To learn the process of compiling and running Java programs with BlueJ.

Step by step assignment

Directions are highlighted in

gray boxes.

1. Logging in

The computer systems in the Computer Science Department laboratory (room 16 Wing Communication Center) are Apple G5 and Intel Core Duo dual-processor systems, and they are using an **operating system** called OS X. (The operating system is the standard software that controls basic computer functions, including interacting with the user.)

If the screen is dark or a screen saver is displayed, then strike the space bar. This should cause the login panel to appear.

Type your user name (first five letters of your last name then underscore then first initial then middle initial), followed by the *tab* key, and your password (9-digit student ID number), followed by the *return* key. If the login panel shakes side-to-side, then you have made an entry error. In case of an error try again. Ask for help if the error persists.

2. The display

The image on your screen is called a **desktop**. Each time you log in the OS X operating system displays the desktop retained from the last time you logged out. Your desktop will appear roughly similar to the one on the next page. There are three portions of the desktop that deserve special explanation:

<u>**Menu bar**</u> – This is the light bar across the very top of the screen. This menu bar always displays the menu of commands that are available for the particular application that is running in the foreground. For the desktop pictured on the next page the OS X desktop (Finder) program is running, so the menu bar is labeled *Finder* on the left. (You can return to this menu at any time by clicking on an unoccupied portion of the desktop or one of the Finder's file browser windows.) Pull-down menus are activated by clicking on any of the words in the menu bar. The black apple icon at the far left activates a submenu that is available regardless of which application is in the foreground.

Dock – The row of icons across the bottom of the screen is called the **dock**. The dock icons provide quick access to selected applications or files. You can customize your own dock.

<u>Finder</u> – The Finder is the OS X mechanism for accessing files, and will be described shortly in more detail.



Finder window

Dock

You will also notice that, like other modern operating systems, OS X uses **windows** as the primary way to display information to the user (you).

At any time only one window and its associated application will be in the **foreground**. You can identify the foreground window, because it is more vivid and has colored highlights. Clicking on a window brings it, and its associated application to the foreground.

In the upper left side of the foreground window's title bar are three buttons that look like colored beads. The left of these three buttons (red) is clicked to close¹ the window (permanently). A click to the middle (yellow) button minimizes (hides) the window into the Dock. Clicking the right (green) button maximizes the window.

Two other important manipulations of windows are accomplished as follows:

Moving – the foreground window is moved by dragging anywhere on its top bar.

Resizing – the foreground window can be made larger or smaller by dragging on

the lower right corner resizer (see picture on next page).

Try moving and resizing this Finder window.

¹ *Note for Windows users:* Closing a window does not usually quit an application, you still need to use the "Quit" command to quit any running application.

3. Using file browsers (Finder)

The OS X file browser (Finder) is different from MS Windows file browser windows, and it can be far more efficient if used properly.



Clicking the third button segment from the left (as shown below) on the Finder places the Finder in column mode. This is highly recommended. (The other three options are much more like older Apple and Microsoft Windows systems.) You may also find it helpful to keep two finder windows on your desktop.



Files are stored in **directories** (also called **folders**) which form hierarchical structures. A Finder reflects the structure of folders within folders.

In the Finder above there is a folder called "Macintosh HD" (or "MacOSX" or something else on different machines) which contains a folder called "Applications" which in turn contains a file called "Safari". (Folders are identified by a small file folder icon to the left of the name, while files use other icons.) Note that in UNIX notation the pathname proceeds from left to right across the columns; in Unix this file would be written as follows

/Applications/Safari

To navigate a Finder window in column mode you generally work left to right across the columns until reaching the final file. Note that the column to the right of the selected file displays relevant information about the selected file.

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To select a file, click on the corresponding folder/file name in a Finder window column. The leftmost column can be clicked to reset to some predefined position in the file structure. The so-called **root directory** that represents your whole disk drive is called *Mac OS X*. This root folder is the root directory that contains everything accessible on the computer's hard disk. The entry associated with the hou



everything accessible on the computer's hard disk. The entry associated with the house icon is clicked to set a Finder window to your personal folder.

Use a Finder window to reach the Safari file. Next, click on the home button (the one with the house picture) and notice how the Finder resets to your personal home directory. Check out two other directories: /*Mac OS X/Archives/Documentation/jdk1.5* provides useful Java documentation and /*Mac OS X/Applications* the most commonly used applications.

4. The Dock

You will already have icons in your Dock; you will find some of the associated applications to be useful and others not. There are three ways for you to insert additional icons into your Dock.

- 1) You can insert new icons by dragging the smaller versions from the Finder and dropping them between any two existing icons in your dock.
- 2) When you click the yellow button on the top of the foreground window, it causes the window to be temporarily reduced into the Dock.
- 3) If you run an application (program), an icon is automatically inserted in the Dock during the time that the application is active.

You can remove any item from the Dock excepting the blue faces icon and the trash can. To remove an icon from the Dock drag it and drop it on an unoccupied region of the desktop. Dock items are activated by a single click. Clicking an application icon causes its program to execute (or be brought to the foreground if it is already executing). Clicking a reduced window restores it on the screen.

Dropping things on the trash can "puts them in the trash". If the file from the Finder is put in the trash, then the associated file or folder is moved to the trash folder. Files that are trashed can be recovered by double-clicking the trash can icon and dragging from the resulting window. Trashed files are not permanently deleted until you activate the Finder application (by clicking on the desktop background), select the *Finder* submenu followed by the *Empty Trash* command.



5. <u>Useful icons to place on the dock</u>

Applications can be placed into the Dock, along with file icons. Applications are also inserted in the Dock by dragging them from a Finder.

Be certain to include the following applications in your dock. Some may already be present. The others can be located as shown to their right.



Mail

File path: /Mac OS X/Applications/Mail



Terminal File path: /*Mac OS X*/*Applications*/*Utilities*/*Terminal*



Safari File path: /*Mac OS X*/*Applications*/*Safari*



BlueJ

File path: /*Mac OS X*/*Applications*/*BlueJ* (or look in: /*Mac OS X*/*Archives*/*Applications*/*BlueJ*)



Firefox

File path: /Mac OS X/Applications/Firefox

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