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Introduction

This document is an introductory guide to Mac OS X for School of Computing & Information Systems students - it shows you how to log in and begin using the School's Mac OS X computers, and provides some useful tips on how to use Mac OS X as configured in the School of Computing & Information Systems environment.

Your Mac OS X Account

In order to use Mac OS X, you need an account. Accounts are automatically created on the Mac OS X environment for all students enrolled in units offered by the School of Computing & Information Systems. The username is the same as your University email account. School account passwords are not synchronised with your central University account.

The School's Mac OS X file servers host both Mac OS and Windows accounts. Different servers are used on each campus, as follows:

- liffey.cis.utas.edu.au       Launceston
- huntley.cis.utas.edu.au     Hobart

Your Mac OS account is usable for general computing requirements, but is also accessible as general file-storage space from the School’s Windows and Unix computers. All Mac OS accounts are allocated a 2 Gigabyte quota.

If you know your central account username and password, you can activate your account at one of the School’s self-help kiosks. Alternatively, visit the School's Help Desk in Launceston or Hobart for help activating your School account.

Ethics Guidelines

As a user of the School’s computing facilities, you are expected to act responsibly. It is a condition of use that you agree to abide by the Ethics Guidelines. Failure to comply with these guidelines may result in your access to School systems being restricted or revoked. A copy of the guidelines is posted in all School labs, and on the School web site.
Logging In and Out

Log into Mac OS X by typing your username and password into the fields on the login screen:

![Login Screen]

After logging in, you can run applications on the computer, connect to network servers, browse the internet and check your email.

When you’ve finished using the computer, you should either

- log out, or
- restart the computer

Do not shut the computer down – it will go to sleep after a short period of inactivity, and can be woken later by another user wanting to log in, or for network administrative access.

- To log out of the computer, choose the Log Out... command from the Apple menu, or press Command-Shift-Q.
- To restart the computer, choose the Restart... command from the Apple menu.
The Mac OS X Dock

The Mac OS X dock is the strip of icons that resides (initially) at the bottom of the screen, and performs many functions in Mac OS X. It:

- shows the icons of running applications
- acts as a placeholder for minimised windows (similar to the Microsoft Windows TaskBar)
- acts as a placeholder for shortcuts to applications, documents and folders

The dock is divided into two zones, separated by a vertical dividing line. The left-hand side is reserved for shortcuts to applications. The right-hand side is for shortcuts to folders and documents, minimised windows, and the trash can.

- To add a shortcut to the dock, drag the original icon into the dock. Application shortcuts must be dragged into the left side of the dock’s dividing line, document and folder shortcuts must be dragged to the right side.

- To remove a shortcut from the dock, drag it out onto the desktop. You cannot remove icons representing windows, running applications, or the trash can.

The extreme right-hand end of the dock contains an icon that represents the trashcan — this can also be used as an ejection drag point for mounted network volumes and removable storage such as CD-ROMs.

- To delete documents or folders from your Desktop or home directory, drag them to the trash icon in the dock (trashed items are available until the trash is emptied).

- To empty the trashcan, right-click the Trash icon in the dock and choose Empty Trash from the popup menu.

- To eject removable media, such as a CD-ROM, drag its icon to the trashcan. As soon as you drag a removable item, the trashcan icon will change to an eject icon.
Many aspects of the dock can be customised, including

- its visibility
- the edge of the screen that it is anchored to
- its “height”

Dock customisation is available in the Dock menu item, which is in the Apple menu at the top-left of the screen.

Getting used to dealing with the dock is an important part of using Mac OS X.

**The Dock Shortcuts Folder**

You can freely customise the Mac OS X dock to your own requirements, adding and deleting shortcuts as you wish – with one exception. Even if you delete it, the Dock’s Shortcuts folder will always reappear when you next log in. The Shortcuts folder contains folders that each contain shortcuts to the most commonly used applications and utilities on the computer.

The Shortcuts item in the dock will act as a hierarchical menu when you click on it, allowing you to launch most programs in the same way that you would launch them from the Microsoft Windows “Start” button.
Accessing the Internet

Access to internet resources external to the University is controlled by a system known as “IMS”. In order to access any external resources, you must first authenticate (using your University username and password) to the IMS server.

IMS provides extensive monitoring of the internet traffic you consume, and of the sites that you visit.

The School’s Lab computers include an IMS client program (known as IAClient) that runs when you log in, and that passes your previously-stored username and password to the IMS server. If these credentials are correct, access to the internet is granted, and all external protocols (such as http, ftp, smb, rdp, ssh and so on) should work normally.

If your IAClient settings are not correct (perhaps, because you’ve changed your central password, without updating the IAClient settings), then no outgoing connections will work.

To manually store your credentials in the IAClient, run the **IA Client Configuration** program (in the Applications folder), and choose the **Update Credentials** option from the IA Client Configuration menu.

You’ll be prompted to enter you username and password, as shown here on the right. Once you’ve entered your username and password, click “OK” to save them.

The program will attempt to authorise your computer against the IMS server, and if your credentials match, you’ll see a confirmation that you now have internet access. You should not need to run the IA Client Configuration program again, unless you change your central password.

IMS is also used automatically when you connect to the University’s wireless network – you do not need to use the IA client in this case, as the UConnect wireless network passes your credentials on to the IMS server.
Accessing Course Content

Much of the School's course content is provided online via the University's online course management system known as MyLO. Access to MyLO is via a web browser. Not all installed web browsers are compatible with MyLO - the preferred Mac OS browser is Safari:

- start Safari from the "Web + RSS" option in the Dock Shortcuts folder
- if the browser starts with the School of Computing & Information Systems web page, click the Resources button on the left-hand navigation bar. In the content area, you'll find a link to MyLO:

- You can also connect to this system by entering the direct URL:
  
  http://www.utas.edu.au/coursesonline/

- Access to MyLO requires the use of your username and university-supplied password.
Navigating the File System

To use Mac OS X efficiently, you should learn the various ways of navigating the file system.

Special Folders in Mac OS X

Your **Home Directory** is the area where you can store your own files and folders. You can open a window to your Home folder by choosing Home from the Finder's Go menu. When navigating the file system in “open” and “save” dialog boxes, you can always return to your home directory by pressing **command-shift-H**.

Inside your home directory, Mac OS X creates a number of special folders that you should be careful not to delete or modify.

One of these is the **Desktop** folder. Any files you save on the Mac OS X desktop are actually stored in this folder.

- When navigating the file system in “open” and “save” dialog boxes, you can always return to the desktop by pressing **command-D**.

Another important folder that Mac OS X creates in your home directory is the **Library** folder. This is where Mac OS X and many of the Mac OS X programs that you run will store their preferences and related data. You would not normally save files into the Library folder, or delete files from it unless you had special reasons to do so. In Mac OS X 10.7 (Lion) the Library folder is normally hidden from view.

Finder Window Toolbar and the Sidebar

Windows in the Macintosh Finder can optionally display a toolbar and a sidebar. The image below shows two views of the hard drive, one with the toolbar and sidebar turned on, and the other with them turned off.
The commands that control the toolbar and sidebar visibility is in the Finder's View menu – choose either Show Sidebar or Hide Sidebar to toggle the sidebar on and off and Show Toolbar or Hide Toolbar to toggle the toolbar on and off.

You can customise the toolbar using the Customise Toolbar option in the Finder's View menu. The standard toolbar buttons (from left to right) perform the following operations:

- **Back**: Move to the previous view (like the back button in a web browser).
- **Forward**: Move to the next view (like the forward button in a web browser).
- **View**: Switches the current window between icon, list, column and cover flow views.
- **Options**: Shows options for the item(s) selected in the window. This shows the same menu as right-clicking the selected item.
- **Sorting**: Provides icon sorting options for the current view.
- **Search**: Enter text here to search for filenames containing the entered text. You can customise the search area by clicking on the magnifying glass icon.
Finder Window Sidebar

The sidebar is divided into three areas. The upper section shows "Favourites" which include your home directory and documents folder. The next shows shared devices on the network that are advertising services. The third section shows devices connected to the system, such as disks, network shares, and removable media.

Much like the dock, you can drag items into the Favourites section of the sidebar to make your own shortcuts, and drag them out of the sidebar if you no longer require them. Sidebar elements also appear in Open and Save dialog boxes.

Connecting to Network Shares

Once you have logged in, you can connect to any file servers on the University network on which you have an account, or which offer guest access.

Mac OS X allows you to connect to AFP (Macintosh), SMB (Windows/Unix), and FTP, mounting the share on the desktop as another disk-like icon.

To connect to a network service, choose Connect to Server from the Finder’s Go menu. The browse box that is displayed allows you to search for servers on the local network. Alternatively, you can connect to shares directly by entering a server URL in the address field. URL formats and servers are as follows:

- via Apple protocols: afp://huntley.cis.utas.edu.au
- via Windows protocols: smb://huntley.cis.utas.edu.au
  smb://alacritas.cis.utas.edu.au
- via FTP: ftp://user@ huntley.cis.utas.edu.au
  ftp://user@ alacritas.cis.utas.edu.au

As you can see, some servers speak more than one protocol, allowing you to connect in more than one way. For example, the School’s servers lawson and alacritas accept FTP and SMB connections. When in doubt, smb shares are probably the most useful.
Note that the examples provided above show you how to connect to the server **huntley**. If you are already in a School of CIS lab, you will already have a connection to your huntley account, so there is no need to connect again.

To access your huntley files from a Macintosh, choose **Home** from the Finder’s **Go** menu. To access your huntley files from Windows, open the **H:** drive in “**Computer**” (from the Start icon).

Provided you have VPN software installed and running, you can also connect to your account as described above from outside the University network.

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**Burning CDs and DVDs**

All of the Macintosh systems provided by the School of Computing & Information Systems include CD-R/RW/DVD-R/RW burners.

- you can erase CD-RW and DVD-RW media
- you can burn your own files onto a CD-R, CD-RW, DVD-R, or DVD-RW
- you can burn images of popular open-source software, such as RedHat Linux, and FreeBSD

**Erasing CD-RW and DVD-RW Media**

To erase CD-RW or DVD-RW media, run the **Media Eraser** application in the Utilities folder (in the Applications folder).

- Choose either Quick Erase, or a Full Erase. Quick Erase just marks the first part of the disk as free, and takes around a minute. Full Erase writes blank data across the entire disk, and takes much longer. Quick Erase is sufficient for most purposes.
- You can only erase CD-RW and DVD-RW media, not CD-R or DVD-R.
- **You may not be able to erase UDF-formatted disks that have been recorded or formatted on a DVD recorder.**
Burning your own Data CDs and DVDs

To burn your own data onto a CD or DVD, insert a blank into the drive. After a short pause, the Finder will display the dialog box on the right.

Enter a name for the disk, and click OK.

To add files to the disk, drag them from the Finder onto the disk icon, as you would copy files to a regular disk or folder. You can perform any normal file-system operations on the blank media (such as deleting files, creating or deleting folders, and rearranging the layout of files). Nothing is actually written to the disk at this point.

To burn the data to the disk, either:

- drag the CD/DVD icon to the Trash icon in the dock (which will become a Burn icon when you start dragging), or
- right-click the CD/DVD icon and choose Burn from the popout menu

Note that Mac OS X does not use packet-writing techniques, and CDs and DVDs burned as described above are single-session disks. Disks that you burn in Mac OS X are compatible with Mac OS 9, Mac OS X and Windows computers.

Downloading Software

Internet traffic is increasingly expensive to the University, and you are not permitted to download large files such as Linux ISO images. Because of the interest of many students in open source operating systems such as RedHat Linux and FreeBSD, the School provides copies of many of these images on the web server:


As you browse the software archives, if you wish to download any files, be sure to right-click the filename in the list, and save the download on your own removable storage (such as a USB drive). Do not save these images to your login account, or you may quickly exceed your storage quota, and potentially corrupt your files.
Using X-Windows

X-Windows is a windowing system for Unix (and other systems) that provides a graphical user interface similar to that provided by the Apple Macintosh and Microsoft Windows.

All Mac OS X lab computers include the X-Windows software. You can use this to establish a graphical login session on one of the School's Unix hosts (lawson or alacritas), and you can also use it to run locally installed X-Windows software.

To connect to a Unix host using the X-server software, click the Shortcuts folder in the Mac OS X dock, scroll up to the X-Windows option, and choose one of the options.

For more information on using the Unix operating system through the X-Windows interface, refer to School's Unix Guide, available from the Help Desk.

Changing your School Password

To change your School password, open a web browser in one of the School's labs, and visit the page:

https://password.cis.utas.edu.au/

You will be presented with two buttons. One allows you to change your School password to something different. The other allows you to reset your School password to be the same as your central password.

Whichever method you choose, the change will be propagated to the various systems in use within the School, including the Unix server, the Windows domain controllers, the Mac OS X authentication servers, the printing systems, and the tutorial allocation system. This new password will not be propagated to servers run by other schools or entities such as IT Services.

You can also reset your password at one of the School’s self-help kiosks, or you can visit our help desks.
Changing your Central Password

To change your central password, open a web browser in one of the School’s labs, and visit the page:

https://password.its.utas.edu.au/

If you change your central password here, the change will not be pushed on to your school accounts. You must visit the School’s password change page (as described above) to change your School password.

You can also change your central password by visiting the service desk in the Library.

Using The ScratchDisk

Sometimes you need to use more disk space than your disk quota will allow for, or you need access to high-speed local storage. An example of this would be if you were capturing video content from a FireWire-connected video camera. You could not capture this content to your home directory because:

- the volume of data to be captured would quickly exceed your quota
- your home directory is stored on a network server, and network delays would likely cause video frames to be lost

To alleviate this problem, each machine includes a "ScratchDisk". This is not really a disk volume at all – it is a link on your desktop to a publicly writable folder at the root level of the local hard disk (named ScratchDisk).

If you need temporary file space for large projects, you can create these files on the ScratchDisk.

Files you store on the ScratchDisk are not deleted when you log out, and will still be there if you log in again, provided no other user accesses the computer in the meantime. Your files in the ScratchDisk are deleted if another user logs into the same computer. To avoid data loss, be sure to save any files you need back to your home directory or a network server before logging out.
The Mac OS X Keychain

The Keychain is a repository for items that must be stored securely – for example, for storing passwords to internet services and computer accounts. Many Mac OS X applications will offer to use the Keychain to store your passwords and usernames.

Note the following points about the Keychain:

- There can be multiple keychains, but normally the default keychain will be sufficient for most purposes.
- Keychains are stored in your Library folder, in your Home directory,
- The keychain’s contents are stored in an encrypted format using a strong encryption technique. It would be extremely difficult for another user to determine the passwords stored in your keychain, assuming they could access it in the first place.
- Each keychain has a password or passphrase that must be used to open the keychain before its contents can be used by programs. Provided that your keychain passphrase is the same as your login password, the keychain is unlocked automatically when you log in.
- Even when your keychain is unlocked, other users cannot display the passwords stored in it unless they know the keychain password.

Occasionally, the operating system will warn you that an application is trying to access the contents of the keychain, and ask you to authorise the access. This typically happens when an application has been upgraded and the operating system no longer recognises the application’s signature, but can happen at other times.

When you change your login password your keychain will be recreated (with no entries) on your next login.

Corrections

This document is periodically revised. Corrections and suggestions for additional content are welcome, and should be made at the Technical Services Help Desk.