Introduction to the Macs

If you haven’t used a Mac before, you may find some things a little tricky to start with: you won’t find files in the same places as on a PC; there is no C: drive on a Mac; there is no start menu etc. After a short while, you will learn how to navigate your way around the new operating system and find that most things are as easy as or easier than before.

Logging in/out

To log in to a Mac, you need the username that the College provided you with. If this is the first time that you have logged in to the Macs in the Media Arts Centre, your password is set to ‘temp’. You can change your password by clicking the Apple icon in the top left corner of your screen and choosing System Preferences, then choosing Users & Groups and clicking the Change Password button.

To log out, click the Apple icon in the top left corner of your screen and choose Log Out.

Menu Bar

At the very top of your screen you will see a menu bar. Every time you switch between applications, you will see that the menu bar changes to reflect the currently active application. The one thing that stays the same is the Apple menu (Apple icon in top left)

The Dock

At the bottom of your screen, once you have logged in, is the Dock. This is where all of the commonly used applications can be found. To run one of these applications, click it with your mouse (it only needs a single click) the application will then run. If you hide the application, it is still running and you will notice a small white ‘light’ beneath its icon in the Dock. Click the icon to re-open the application. To fully quit an application, go to the menu bar where you will find the first menu is the name of the application you have open. Click that & choose Quit. Alternatively, right-click the icon in the Dock & choose Quit.

Minimise, Maximise & Exit buttons

On all windows, you will find these on the left of the title bar, rather than the right side as it is in Windows. The buttons are round and are colour coded too, RED for Close, YELLOW for Minimise and GREEN for Maximise.

Finder

The Mac equivalent of Windows Explorer is Finder and you can see it at the far left of the Dock. Finder is always running, even when you first start up, you will find that the Menu Bar has the menus for Finder, so you can carry out any file operations necessary, quickly and easily. To open a Finder window, either click the Finder icon in the Dock or (with the Desktop active, press Command N).

Shortcut Keys

Many of you will be used to using shortcuts e.g. CTRL-Z for undo. These can still be used, except you now use the Command (Apple) Key instead of the CTRL key i.e. Command-Z for undo.

Deleting files

Instead of selecting files & hitting the Delete key, you can either right-click them and choose Move to Trash, drag the file(s) to the Trash icon in the Dock or press Command-Backspace. To empty the trash, right click its icon & choose Empty Trash or, in the Finder menu, choose Empty Trash.

Force Quit

If an application freezes and you cannot quit it, go to Finder and, from the Apple menu (top left of the screen) choose Force Quit. This will then give you the choice of applications, choose the unresponsive one & then click Force Quit. Alternatively, right-click the icon in the Dock & choose Force Quit.
SPACE Server

The new SPACE server allows each user to have their own space that is accessible wherever they log in (within the Media Arts Centre). It also allows each user to customise their desktop to suit their own tastes and also to set up their own Final Cut Pro layouts, keyboard layouts etc appropriate to their own needs.

To access your work, open a new Finder window and, on the pane on the left side, you should find a section called FAVORITES. In there, you will see your user name. If you click that, you will see a number of folders which are unique to you. All of these folders actually reside on the server. Anything that you save in those will be saved directly onto the server.
Post Production Workflow

When you have finished the production stage of your film (i.e. filming, sound recording etc), you need to start the post-production stage. There are several parts to this process and should be carried out in the correct order.

Log
Before you even get into an edit suite, you should review your footage and make detailed notes about what is on the tape or card and which parts of it you want to use. You should create a shot log containing the start and end timecodes for each take/shot. For each shot, you should write down what happened in that shot, referring back to your script when necessary. Also, you should note whether the shot was good, bad or if just part of it was usable etc.

Ingest
Once you get to the editing suite, you should have your tape or card, shot log and script with you to refer to. Using your shot log, you can quickly find the clips that you wish to capture. Spending time in an edit suite, trying to decide which shot is best is a waste of resources as someone else could be using that space. Ingest all of the shots that you need for your film, DO NOT ingest the entire tape/card. Again, this is a waste of resources as you will fill up your space and spend more time cutting it down later. While ingesting, it is a good idea to name your clips and create keywords.

Mark up
When you ingest your clips, invariably there is unwanted footage before and after the part of the shot that you wish to use. Open each clip and mark In & Out points so that when you come to assemble them, you have less trimming to do.

Assemble Edit
Place your clips in the correct order on your timeline. Do not worry too much about the edits being perfect at this stage as you are just assembling the clips to see if the film works. You can now look at changing the order of clips, removing clips that don’t work well and deciding on cutaways etc.

Trim
Once you are happy with the overall sequence of clips, you should then go in and trim down the edits so that the film flows better, now is the time to create the rhythm and feel of the film. Add cutaways, split edits etc. You should now have an idea of the overall length of the finished film. You may find that you need to cut some of the film to fit into the allotted time. Again, go through and cut out any shots that are superfluous or just don’t work, ensuring that the film still makes sense. Often, removing a few frames either side of an edit point can speed up the film and also make dialogue flow better.

Add Effects etc
Once you have the edit how you want it, you can now consider any effects you may want to use. Use effects sparingly, only use them if they add something to the film, don’t just use them because they ‘look pretty’.

Colour Correct
Go through the film and colour correct any shots that need it. You may find that two shots that are placed next to each other have different colour casts. This can affect the viewer’s perception of the space that the characters are in. Try to match up the colour of any shots that are supposed to be in the same place. If you want to give the entire film a colour cast, you should still try to correct all of the shots first and then add the colour cast at the end as a secondary colour correction, so that there is a consistency between shots.
Sound Mix
Once you have finished the editing process (even before you add effects/colour correct) you can start to consider the sound mix. If you have a sound editor, you can give them a copy of the edited film with the sound that you have and they can then mix that with other sound effects, music etc. This should only be done once the editing is finished and you have a ‘Picture Lock’ (i.e. no further editing to the sequence which will alter the timing) as any changes to the sequence will mean that the sound mix will have to be re-done.

Output
You have several options for outputting your film. You can create a DVD/BluRay, upload to YouTube, Vimeo or Facebook or create a master file for handing in etc. We recommend keeping a copy in the highest possible quality so you will be able to make other copies/DVDs etc later.

Note about Formats
The Media Arts department is currently set up to use SD cards. Each iMac has an SD card reader built-in, at the rear, and there are SD card readers in most edit suites. If you cannot find one, ask a technician.

Ensure that your camera is set to record in in the correct format BEFORE you start shooting.

Also, it should be noted that Final Cut Pro projects are NOT backwards-compatible. Therefore, if you have your own copy of Final Cut Pro, you should make sure it is the same version that we currently have installed in the department to ensure full compatibility.
Final Cut Pro X (FCPX)

Starting up
Click the Final Cut Pro X icon in the Dock at the bottom of the screen. If it is the first time you are running the application, or you are creating a new Library, it may ask for some folder locations. On the Backups dropdown, pick Choose. It should default to your Documents folder. In there, create a New Folder, name it FCP Backups (or similar) and Click OK.

User Interface
When you start FCPX, you will see that the screen is divided into sections. On the top-left, you will find the Library that is currently open, along with any Events that are contained within that Library. Next to that, you will find the contents of the active Event - video clips etc. When you first start, you will find a Library called Untitled and an Event inside that named after the date it was created.

On the right is the Viewer, where you watch your clips and edits. At the bottom of the screen is the area where you edit. The main, darker area inside that is called the Storyline. Between the top and bottom sections is a bar, containing buttons for various functions. In the middle is a box containing the timecode for the currently selected clip/project.
Organising your edit
When editing it is important to be organised as it will save you a lot of time and frustration. To help, you can choose to organise your clips in various ways (e.g. Group by Date, Type etc). You can also add Keywords to assets to quickly be able to find clips that relate to each other or you can rate them as Favourites or Rejects.

Saving Projects
FCPX saves your work as you edit, you never need to save. In fact, there is NO Save option in the File menu!

Importing footage from cards
BEFORE YOU DO ANYTHING ELSE, BACK UP YOUR CARDS!

Many people copy the footage from their cards and then wipe them so they can carry on filming. What happens if the footage you have copied gets accidentally deleted? You’ve lost all of your hard work and have to re-shoot. Make sure you have at least TWO copies of your data, preferably in two DIFFERENT places (on the server and on your own hard drive is the best option)

To back up a drive, the best way is to open Disk Utility (in Applications > Utilities folder), select the card on the left panel and then, at the top, choose New Image.

Give the new disk image a sensible name, choose your Documents folder (or a sub-folder within it) and hit the Save button.
Once you have created a disk image, you can eject your card, double click the new disk image (.dmg file) and convert your clips from there.

**MP4/AVCHD/MOV**

Most cameras record in one of these formats and, normally, it is simply a matter of putting your SD card in (or opening the appropriate DMG file), then clicking the `Import` button on FCPX. The card/drive will then appear on the left of the Import Window. Select it and the clips should appear at the bottom right. You can watch the clips at this stage, choosing which ones you wish to use and also mark sections if you only need extracts (saving time and space).

If clips appear completely green, they are in a format that FCPX doesn’t recognise and will need to be converted. If shot on our Sony PMW-100 cameras, read the Sony XDCAM section below. If they were shot on another camera, see the MPEG Streamclip section.

If all is well, select all the clips you wish to Import and then click **Import Clips**. You will see the following window appear:

In this window, you can choose whether to copy the files into the library (always do this if you are importing from removable media, or want your entire project to be easily transportable). You can choose the event that they are imported into, or create a new one.
You are given the choice to **Create optimized media**, which will convert any files that are lower quality into ProRes 422 for ease of editing, and also to **Create proxy media**, which will create smaller, more compressed files which are easier to edit on lower powered machines (like older laptops).

Beneath that, you can choose whether to create **Keywords** using either Finder Tags, the names of the folders that the clips currently reside in or whether there are no, one, two or a group of people in the shot.

During the import process, you can have FCPX analyse the video for colour balance problems and the audio for clicks, hums etc. It can also remove any silent channels that may exist (e.g. when you don’t have a microphone plugged in)

**Sony XDCAM**

If you have shot on one of our Sony PMW-100 cameras, your footage will be in MXF format.

- Ensure the disk image is open or you have the card in the card reader.
- Open **XDCAM Transfer** application (in the Applications folder).
- If it is the first time you have run this application, it will ask you for locations of files etc. The only one that you need to pay attention to is the Import Location. That is where it will store the converted files, defaulting to Movies/SonyXDCAM Transfer. If you want the files in your Documents folder, change that location.
- A new window will appear (see below)
- Click the **Add...** button in the bottom left and navigate to the disk and then, through PRIVATE to the SONY folder
- Thumbnails of your shots will appear, you can select and view the clips and mark the sections you want and/or add log notes etc.
- Choose the clips you need, then in the bottom right, choose the project you wish the clips to be imported into and click **Import**
- Once all the files are converted, go back to FCPX and import them from the location you set earlier.
MPEG Streamclip

If your camera records in a format that FCPX doesn’t recognise, use MPEG StreamClip (in the Applications folder) to convert them to Quicktime movies:

- Launch MPEG StreamClip.
- Go to the List Menu & choose Batch List (CMD-B).
- Click the Add Files button and then locate all of the files you wish to convert.
- You will be asked to choose a Task. Select Export to Quicktime.
- Select a location where the converted files will go (somewhere in your Documents folder)
- You will see a screen with lots of settings.
- Choose Apple ProRes 422 from the Compression drop-down menu.
- Set the quality to 100%.
- Leave all other settings as they are.
- Click the To Batch button; you will then see a screen with the batch list of clips. Click Go.
- Once the clips have been converted, you can import them into FCP7.

Marking up Clips

In FCPX, to skim through a clip, you just place your cursor over it and move forwards/backwards. If you click and drag while over a clip, it will set the In and Out points (a yellow box), which define which part of the clip you wish to use when moving it to the Storyline. You can use I and O keyboard shortcuts to mark In and Out points too. To clear In/Out points, press ALT-X.

Adding Clips to the Storyline

Simply dragging a clip (once marked) to the Storyline is easy:

- If you drop it at the end (in the darker area) it will snap to the end of the previous clip (like a magnet).
- If you drop the clip above or below any existing clips in the Storyline, they will be Connected to the clip nearest the start of the one you are bringing down. If you move the clip that was already on the Storyline, the Connected Clip will move with it.
- If you drop a clip ONTO a clip that already exists on the Storyline, you will get a pop-up menu asking what you want to do with it, including options like Replace or Add to Audition.

Moving and Removing Clips

To change the order of the clips in the Storyline, just click & drag them around, you will see other clips move out of the way to accommodate the clip in the new position.

To delete a clip, hit the Backspace key (above the Return key) and any gap created will be closed. If you want to retain the gap when you delete a clip, hit Delete (above the Arrow keys) instead.

Trimming

Trimming (detailed editing of the start and/or end points of a clip) is easy in FCPX, just place your cursor over an edit point - slightly to the left to edit the end of a clip or slightly to the right to edit the beginning of the next clip - and then click and drag it. Zooming in before doing this gives finer control. Clips on the Storyline will move to account for the changes.

Roll, Slip and Slide

These more advanced trimming tools can all be carried out using the Trim Tool (T). These allow you to edit two in/out points at the same time. Allowing you to change the end of one clip and the start of the next clip at the same time (Roll), the start and end point of one single clip (Slip) or the end point of the clip BEFORE the one selected along with the start of the clip AFTER (Slide). These take a bit of practice to get used to.

Browsers

There are a number of browsers available, allowing you access to various effects, transitions etc. (see image below)
Transitions
Open the Transitions Browser and you will find many transitions. Skim over the transitions’ icons with your cursor to preview them. When you find one you wish to use, simply drag it and drop it on the edit point between two clips on the Storyline.

Effects
The Effects Browser contains many video and audio effects. Click in the Storyline to place your playhead over the clip that you intend to add an effect to, then skim across an effect’s icon to preview what that effect will look like when applied. When you find the right one, drag it and drop it onto the clip in the Storyline. You can add more than one effect to a clip but be aware that the order in which they are applied can make a difference to the final outcome.

Titles
The Titles Browser has lots of different titles that you can use. Drag them into the main Storyline to use them on a black background or drag them above the Storyline and connect them to a clip to use that clip as the background for the title.

Colour Correction
As soon as a clip is used, it is automatically assigned a colour correction. To use it, select the clip in the Storyline and then, in the Properties Window (under Video) click the arrow to switch to the Colour Board.

The Colour board has three areas, Color, Saturation and Exposure. Each area has four ‘pucks’. The largest one adjusts the overall picture. The black one adjusts the shadow areas, the grey one the midtones and the white one adjusts the highlights.

Start with Exposure and get that right, then move to Color and correct any colour casts by dragging the pucks down over the colour you wish to get rid of.

Saturation allows you to increase or decrease the amount of colour, so you can go for subdued colours or even black and white.

Audio Editing
In FCPX, video clips often have the audio attached in the same block in the Storyline. Along each clip, you will see a black line over the audio section, this is the volume level for that clip. Drag it up or down to raise or lower the volume of that clip. If you want to make adjustments on small sections of a clip, hold down the ALT key and click on the line to add audio keyframes. Add more than one keyframe and you can then adjust them individually.
Audio clips can be attached to the Storyline and adjusted in the same way. For spot effects, ensure they are connected to the clip that they need to be in sync with and, if that clip is moved, sync will be retained.

If you need to separate the audio from a video clip, you can right-click it and choose Detach Audio.

Click the small audio meters next to the Timecode to open larger, more accurate meters to the right of the Storyline. Ensure that the volume level never exceeds 0db on these meters to prevent audio distortion.

**Sharing**
To deliver your finished edit, click the Share button (far right of the centre bar) and choose one of the options in there. If you are connected to the internet, you can share directly from here to Facebook, Vimeo or YouTube. For hand-in and/or keeping a final copy of your work, choose Master File.

**Keyboard Shortcuts**

- **Apple - C** = Copy
- **Apple - X** = Cut
- **Apple - V** = Paste
- **Apple - Z** = Undo

- **N** = Snapping on/off
- **I** = Mark In
- **O** = Mark Out
- **X** = Mark Clip
- **Alt - I** = Clear In
- **Alt - O** = Clear Out
- **Alt - X** = Clear IN & Out

- **L** = Play forwards (press multiple times for faster play)
- **J** = Play backwards (press multiple times for faster play)
- **K** = Pause
- **K + L** = Play forwards slowly
- **K + J** = Play backwards slowly

- **Backspace** = delete & close gap
- **Delete** = delete & leave a gap
- **F** = Favourite clip
- **U** = Unrate clip
- **Apple - K** = Open Keyword Editor

Apple-Alt-Esc - Force Quit (if an app stops responding)