**Director**

In this tutorial you should learn how to create and control simple animation within Macromedia Director.

To the left you can see the main screen you will be using, comprising of:

- The Tools Palette;
- The Stage;
- The Score;
- The Cast;
- The Properties Window;

If these are not showing when you open Director they can be found in the **Window** menu from the pull-down menus at the top of the screen. All are listed under their own name. You can also click on the corresponding Icon at the top of the Director window.

**Drawing**

Let's start in a simple way, open the Paint window by clicking on the paint icon at the top of the screen.

This will open the Paint window. Using the drawing tools on the left of the window draw an oval with the filled oval tool.

You can change the colour to any colour you wish by clicking in the colour selector below the tools.

This will pull-out a colour palette. Select your colour from here.
Create a new draw window by clicking on the + sign at the top left of the window. This will create a new blank paint area. Draw two smaller ovals for the eyes.

Likewise for the pupils.

**Onionskin Window**

To open the onion skin facility click in the **View** menu and then on **OnionSkin**. The small window shown opposite will pull-out.

Click onto the multiple brush icon and then into the increment box to view preceding layers as a semi-transparent image.

You can use this technique to change the image of each frame slightly within your drawn animation sequence.

Continue this sequence - new paint screen - for each of the following items until you have built up all facets for a face:

* the mouth (as a smiley mouth);
* the mouth (as a black oval);
* eyebrows (up);
* eyebrows (down);
* hair (normal);
* hair (shock);
* ears;

When all these are done you are ready to start. Click onto the **Cast** icon and the **Score** icon at the top of the screen. You will see that every thing you have drawn has been given a separate cast member and number within the Cast window.

Click into the face oval in the cast window and drag it onto the stage. You will see that as well as appearing on the stage it will also appear in the **Score** timeline as a blue line numbered 1. This is now Sprite 1.

You now have a short film which will last about a second.
Repeat this process with each cast member until you have built up your complete face.

You will see that each time you drag an item from the cast onto the stage the score creates a separate timeline, one below the other.

You will also see that when you drag an image onstage the image is shown in a rectangular section of white background.

You can make this white background invisible by utilising the options in the Property Inspector.

In the Ink option highlight Matte. The background will disappear leaving only the main image. You will need to do this to each of the images that make up the face.

**Lets Animate**

Click on the pupils of the eye, this will highlight their sprite timeline (blue). At frame 10 click in this timeline. The videohead should appear above frame 10. Right click the mouse and a dialog pulls-up, click on the **Insert Keyframe** option. A circle should appear in the frame, this is now a keyframe.

A keyframe is where something different happens to the animation.

Do the same to frame 20 so that you now have two keyframes within the timeline. Click on the first keyframe and then move the pupils to the left, see the illustrations on the top of the next page.

Do the same with frame 20 but this time move the pupils over to the right.
There should be a clear movement line from the blue dot in the centre of the pupil sprite. This shows the path the animation will take when you play it. This is called **tweening**.

It's now time to try it out. Make sure you have the Control Panel visible on-screen. If it is not, it can be opened from the Windows Menu at the top of the screen or you can use the play facility set into the base of the stage window. Which ever you use make sure the small arrow shown here, is clicked on to give you the loop film option.

Click on the play button and watch your animation look to the left then to the right. It will continue to do this until you click on the stop button. You have made your first animation. Now let's make it more involved visually.

**Creating an Image Loop**

To make single cell frames work like real things (a bird flapping its wings etc.) you need to sequence a number of frames each with a different position of the movement. If you wish to move an number of frames within the timeline it becomes complicated. It is far simpler to create an animated loop of the whole action and set it into the cast window as an individual member. This member can then be tweened around the screen.

Draw an insect in two states like the images here. The first with the wings open the second with the wings closed (Do it in your own style). These will become your animation loop cast.

Find a place in the timeline where it's clear, click on a frame to highlight it, drag the image onstage. Then reduce the timeline to about three frames. This can be done by clicking in the rectangle at the end of the
line and dragging the mouse so the line is shortened.

Click on the line to highlight the whole line then use the **Edit** menu to **Copy** the line.

Click in the frame next to the end of the first line and use the **Edit** menu **Paste** option to create a second line and image, which is a copy of the first.

Highlight the second line - then highlight the second image (the closed wings) in the **Cast** window. Go to the **Edit** menu and highlight the **Exchange Cast Members** option, this will replace the first image with the second image in exactly the same place.

Highlight both lines and drag them into a blank space in the **Cast** window. This will create a **Film Loop** which consists of all animated actions, but is contained within 1 cast member.

Delete the two lines from the score window, you don’t need them anymore.

**Animate the Insect**

Drag the film loop onscreen, you will see an image of the insect appear.

Click on the end frame of the loop timeline to highlight that frame.

Click on the image and drag it across the screen. This will create an animation path with a number of yellow dots along it.

Press the Alt key and click onto one of the yellow dots. Drag it out to change the position of the line. Do this several times until you have created a curved path around the head.
Run the animation to see the insect fly round the characters head.

**Now its Yours**

Now play. See if you can make the eyes follow the insect around its path.

When you have done this make the insect fly into the characters mouth.

Give the character a shocked look.

See if you can enlarge the eyes without re-drawing them.

Make the insect come out of the characters ear. Add humour to the animation. Its time for you to experiment to see what can be done, see what you can do. Creativity is down to your imagination alone. Let your imagination rule.

You can now animate in Macromedia Director.