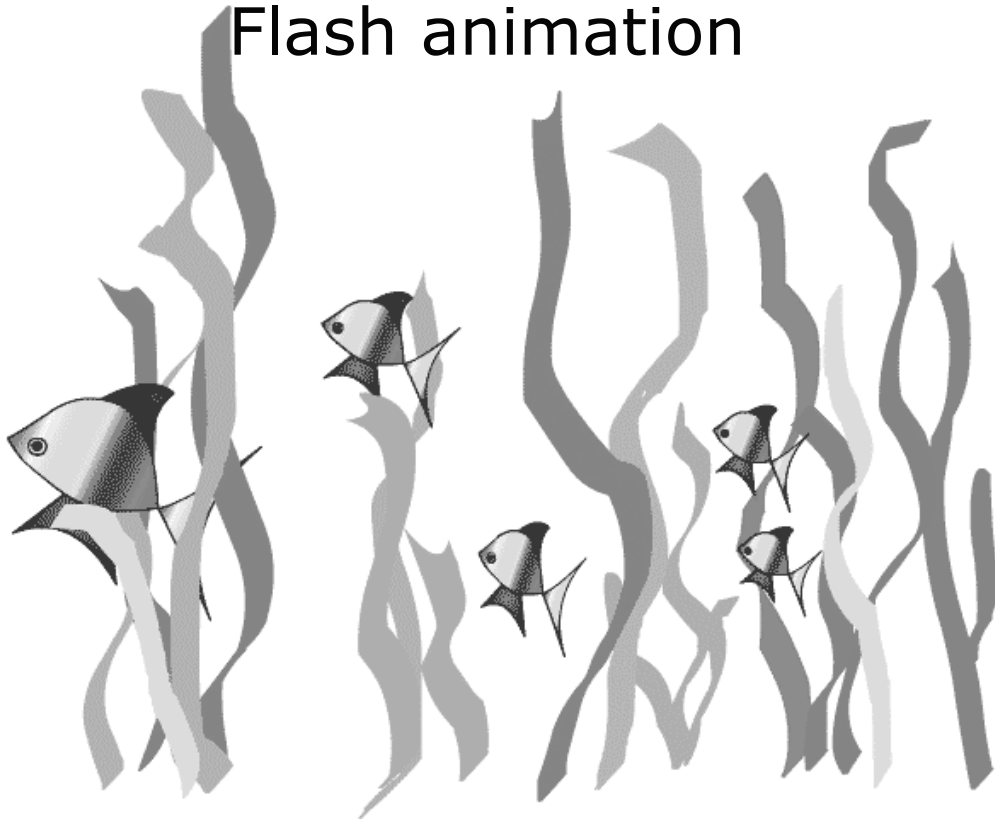


Macromedia Flash MX Key Concepts Tutorial

Learn the basics of
Flash animation



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Note: This tutorial is for teachers. It is not suitable for use with primary pupils.

Macromedia Flash MX – Key Concepts Tutorial

Jo King

Overview

Flash is a powerful piece of software, with applications ranging from a vector-based drawing package at one end to a highly complex ActionScript programming language at the other.

Somewhere between these two extremes lie the 'Key Concepts' that specifically identify Flash as an animation tool. This tutorial will explore these basic animation Key Concepts through a series of short projects.

Please note that this tutorial uses Macromedia Flash MX. Anyone using MX 2004 may notice slight differences in menus and tools.

Course Outline

Flash Animation – the 6 Key Concepts	2
Project 1 – Face <i>New Key Concepts: Layers, Timeline, Keyframes</i>	3-4
Project 2 – Eyes (Part 1) <i>New Key Concepts: Graphic Symbol, Motion Tween</i>	5-6
Project 3 – Eyes (Part 2) <i>New Key Concepts: Motion Clip Symbol</i>	7-8
Project 4 – Initials <i>New Key Concepts: Shape Tween</i>	9-11
Project 5 – Button <i>New Key Concepts: Button Symbol</i>	12-13
Project 6 – Fish <i>New Key Concepts: Instances</i>	14-16
Publishing the Movie	17
Frequently Asked Questions	18-19
Online Tutorials	20

Flash Animation – the 6 Key Concepts

Key Concept 1: Layers

Layers work like sheets of clear plastic on top of each other. If you look at all the layers together, you can see the whole animation, but each separate layer only contains a small part of the whole animation. In effect, you build up your animation from lots of small parts, each part on a different layer.

Key Concept 2: Timeline

The timeline is divided up into numbered blank frames. You control the order that things happen in your animation by placing events in different frames along the timeline. The default setting for Flash is 12 frames per second, so every 12 frames represents one second of animation

Key Concept 3: Keyframes

You control changes in your animation by positioning keyframes along the timeline. A keyframe position indicates which layer is affected and where on the timeline that change happens.

Key Concept 4: Symbols and Instances

Symbols are part of the reason that Flash produces such small files. When you create a symbol, Flash stores it in its library. Next time you use your symbol in the animation, Flash refers to its library copy. So a symbol can be used hundreds of times in an animation or just once – the file size is the same.

There are 3 kinds of symbols: Graphic, Movie Clip and Button

By editing a symbol, you change all the examples of it in your animation. You can also copy a symbol and change its size, colour and transparency without affecting the original symbol. This copy is called an 'instance'.

Key Concept 5: Tweening

In traditional animation, if you were moving an object across the stage, you would have to set its new position in every frame in the timeline. With tweening, all you have to do is set the first position and the last position. Then you ask Flash to add tweening to fill in the animation between the 2 keyframes. There are two kinds of tweening:

- Motion tweening is used when symbols are changed. It covers position change, colour change, alpha (transparency) change, rotation and scaling changes.
- Shape tweening is used when one shape is deformed into another. Neither of these shapes can be symbols.

Key Concept 6: Buttons and ActionScript

If you want users to interact with your animation, you need to use buttons. Once you have created a button symbol, you can assign actions to it using ActionScript, so that something happens when the user clicks interacts with that button.

[Back to contents](#)

Project 1 – Face

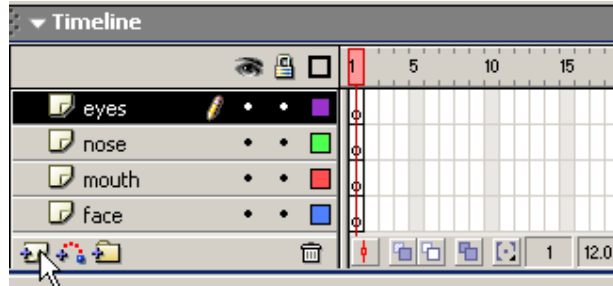
Eyes, nose and mouth appear one after the other to create a finished face
New Key Concepts: Layers, Timeline, Keyframes

1. Organising Layers by Naming

Get into the good habit of naming each layer as you go along.

Double click to re-name the existing layer from 'Layer' to 'face'.

Use the 'Insert Layer' tool to add layers and re-name each one, until you have 4 layers in place – eyes, nose, mouth and face.

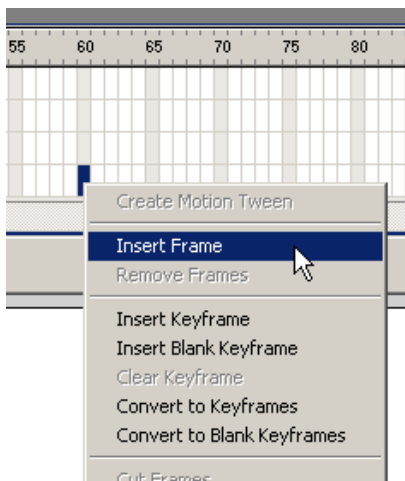
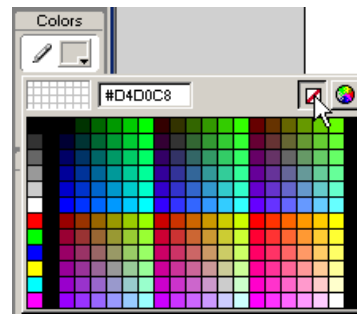


2. Drawing the face background

Click on the first keyframe on the face layer.

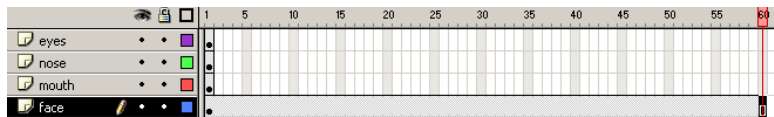
Using the Oval tool, a suitable fill colour and the Stroke set to 'No Colour' (ie no border), draw a large face on the stage.

At the moment the face is only on frame 1. As soon as frame 2 is played, it will disappear (click on frame 2 to check). You need to set the face background to stay there for the whole animation. Move along the timeline to frame 60, where the animation is going to finish (you can easily alter this later on). Make sure you are on the face layer, right click in frame 60 and Insert Frame.



You do not need to insert a keyframe – keyframes are when something is changing and the face is not going to change.

You should see the frames on the face layer change to a grey bar. Now when you click anywhere on the grey bar, you will see that the face stays on the stage.



3. Adding the other face parts to come in to the animation one by one

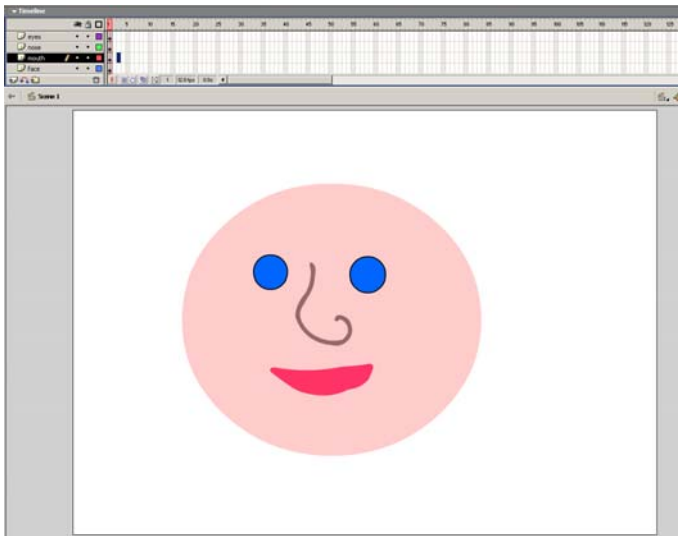
Right click on frame 10 of the mouth layer. This time Insert Keyframe (because something is changing at that frame). Draw a mouth in frame 10.

Note that the colour of the brush is chosen from the fill colour tool.

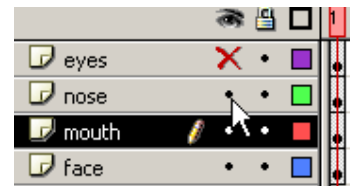
You will need to insert a frame at 60 again, so that the mouth stays on the stage until the end of the animation.

Insert a keyframe at 20 for the nose layer and one at 30 for the eyes layer. Do not make pupils or irises for your eyes. These will be added and animated in Project 2. Each time insert a frame at 60 as you did before.

If you click on frame 60, you should have something like this:



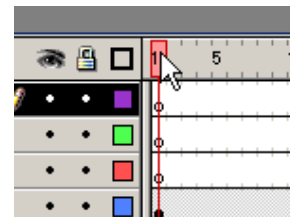
Double check that each part of the face is on the correct layer. Do this by clicking on the Hide Layer tool and checking that the correct part disappears:



Clicking again on that tool will make the part reappear.

4. Testing the animation

Drag the playhead back to frame 1 and press Enter. You can also test the looping effect of your animation by going to the Control menu >Test Movie (or press Ctrl + Enter). Close down the Test Movie window to return to the Flash stage. Now save the project.



5. Extension

Drag the face layer above the mouth layer. What happens if you test the movie now? Can you see why the order of the layers is very important?

Can you alter the keyframes so that the eyes appear first, followed by the nose and finally the mouth?

Hint: Move a keyframe by shift-clicking to select it, and then dragging it into its new position.

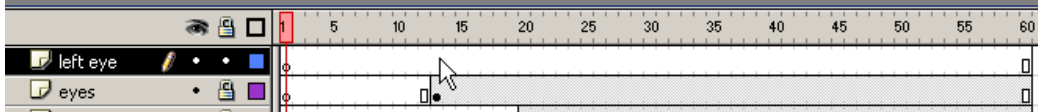
[Back to contents](#)

Project 2 – Eyes (Part 1)

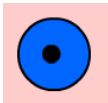
Animated eyes swivel from side to side
New Key Concepts: Graphic Symbol, Motion Tween

1. Drawing the moving part of the left eye

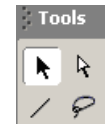
You need to create another layer for the moving part of the eye. Insert a layer and make sure it is above the eyes layer. Call this layer 'left eye'. The first frames in this new layer may well be empty and white – this does not matter.



Right-click in the keyframe above the 'eyes' layer keyframe and Insert Keyframe there.



Now use the Oval tool, select No Colour from the Stroke tool and black from the Fill palette to drag out a small black circle inside the left eye. You can select the circle with the arrow tool to position it accurately.



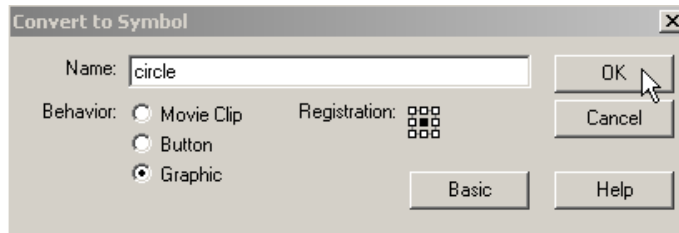
2. Converting the circle to a symbol

In order to animate this circle, and to re-use it for the right eye, you need to convert it to a symbol.

First lock the other layers so that you don't change them by mistake.

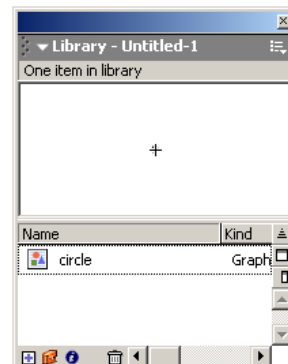


Then use the arrow tool to select the black circle you drew on the 'left eye' layer. You will see it highlighted with small dots. Go to the Insert menu > Convert to Symbol. Choose Graphic and give it the name 'circle'.



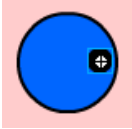
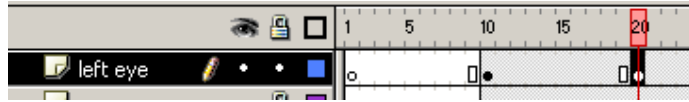
Note: A Graphic symbol is one whose content remains static. You should choose Graphic if you just want to use a graphical object over and over again.

You can see where Flash has stored this symbol by going to Window menu > Library.



3. Animating the circle

Insert a keyframe on the 'left eye' timeline, about 10 frames further on than the first keyframe.



Then use the arrow tool to select the black circle and move it to one side of the eye. Continue to insert keyframes and move the circle from side to side. Stop when you get to frame 60.

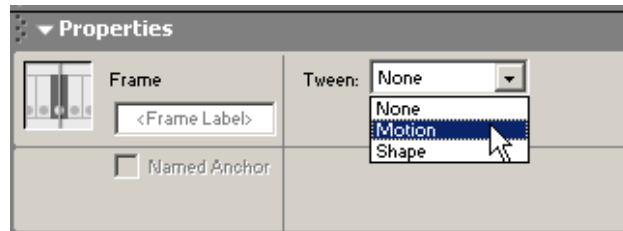
Test the movie as before – you will see that the circle jumps from side to side.

4. Adding motion tween

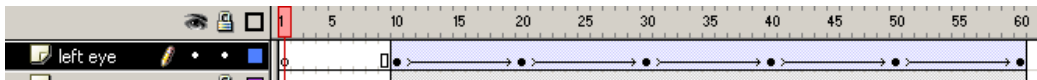
You can make the circle move smoothly from side to side of the eye using motion tween. Click on the first keyframe of the animated sequence. Look at the Properties panel at the bottom of the window and select Motion from the pull-down Tween options. You will notice that an arrow has appeared between that keyframe and the next. The frames also turn mauve, indicating motion tween.

Note: You can also right-click anywhere between the 2

keyframes and select 'Create Motion Tween'



Continue to add motion tween until your timeline looks like this:



Now test the movie again and see the difference.

5. Animating the right eye

First, insert a new layer and name it 'right eye'. Insert a keyframe above the first keyframe in the 'left eye' layer.

You are going to re-use the Graphic symbol you have already made. Simply drag the symbol from the Library window onto the stage, then use the arrow tool to position the circle inside the right eye.

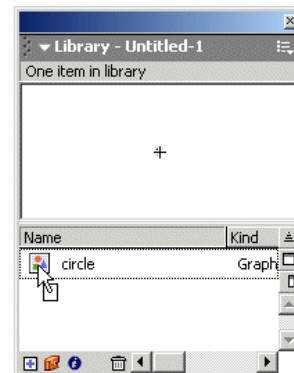
Animate in the same way. Now save the project.

6. Extension

Can you change the colour of the eyes from black to red?

Hint: Try double-clicking on one of the black circle symbols. To return to the normal view, click Scene 1, underneath the Layers.

[Back to contents](#)



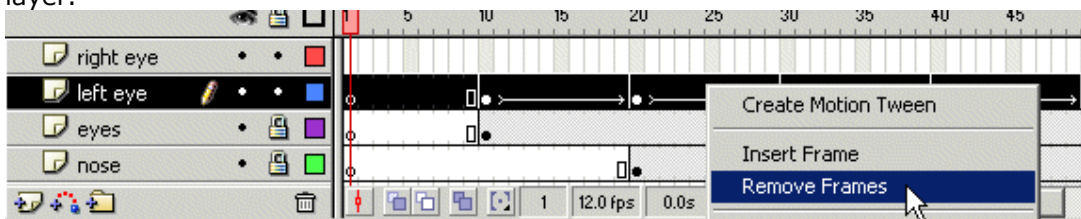
Project 3 – Eyes (Part 2)

Achieve the same effect in a much cleverer way
New Key Concept: Motion Clip Symbol

1. Removing frames

Note: This project uses the *Eyes (Part 1)* file, so open this first.

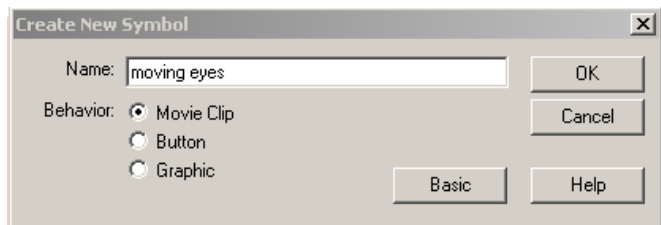
You are going to return the animation to the state it was before you animated the circle symbol. Highlight all the frames of the 'right eye' layer, by dragging across them, then right-click and select Remove Frames. Do the same for the 'left eye' layer.



2. Inserting a new Movie Clip symbol

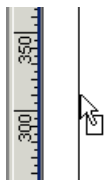
Instead of using the 'circle' Graphic symbol and animating it yourself, you are going to create a Movie Clip symbol which will animate the circle for you.

Go to the Insert menu > New Symbol. This time, select Movie Clip and call it 'moving eyes'

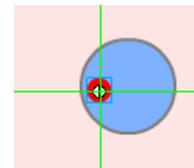


Your scene will disappear and you will see the timeline of the Movie Clip 'moving eyes'. This is where you will create the 'moving eyes' animation. Click on the first keyframe and then drag the 'circle' Graphic symbol from the library onto the stage. Notice that the 'moving eyes' Movie Clip symbol is also now in the library.

Insert a keyframe into frame 10 and move the circle slightly to the right. Then insert a keyframe in frame 20 and move it back again.



Note: You can line up objects exactly by going to View menu > Rulers. Click on either the horizontal or vertical rulers and drag a guide line onto the stage. Use 2 guides to mark the position of the first circle.



Holding down shift and using the arrow keys will move an object quickly in a straight line.

Create motion tween between the keyframes and then test the Movie Clip.

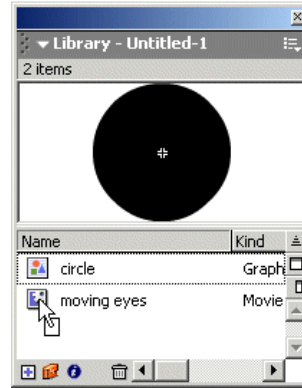
Return to Scene 1.  

3. Placing the Movie Clip in the animation

Now insert a keyframe on the 'left eye' layer, as before.

This time drag the Movie Clip 'moving eyes' from the library and position it inside the eye.

Movie Clips loop automatically, so all you need to do now is insert a keyframe in frame 60 and test the movie (Ctrl + Enter only, not the playhead). If you need to adjust the Movie Clip to make it fit inside the eye, double-click on it to edit it.



You can complete the 'right eye' layer in exactly the same way. Now save the project.

4. Extension

Can you use the same Movie Clip to make the right eye move inwards at the same time as the left eye, to give a cross-eyed effect?



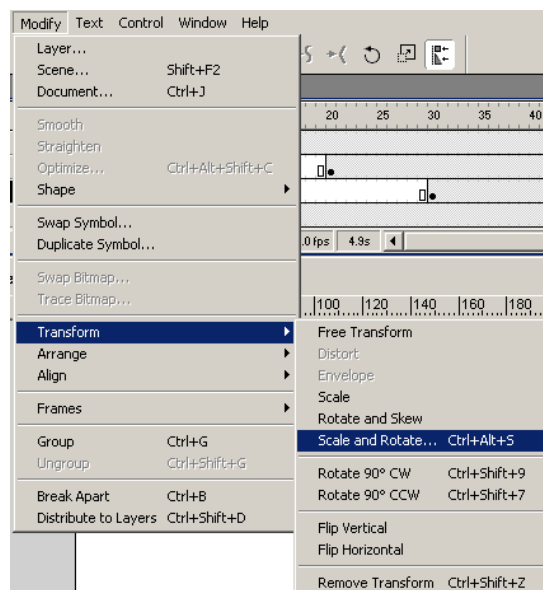
Can you think of how you would animate the mouth in a similar way?

Hint: It must be converted to a graphic symbol first.

You could transform the mouth by changing size and rotation. Use the Free transform Tool or go to Modify menu > Transform > Scale and Rotate.



[Back to contents](#)

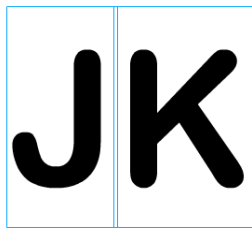
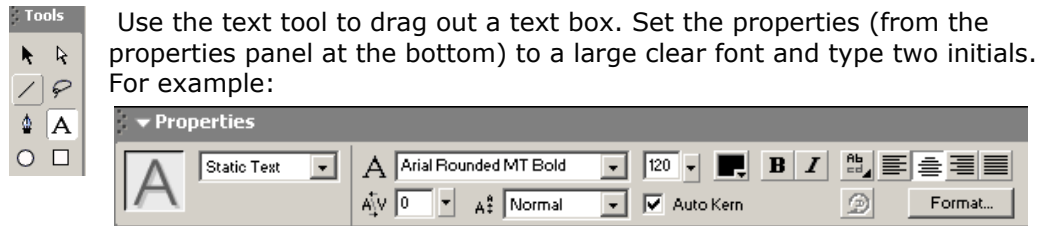


Project 4 – Initials

Initials morph, follow a path and change transparency
New Key Concept: Shape Tween

1. Writing your initials and converting them into graphic objects

Use File – New to create a new blank document.

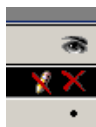
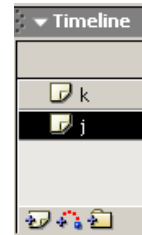


Now you are going to break apart the initials into separate art objects. Select both initials by dragging a box over them with the arrow tool. Go to Modify menu > Break Apart. This splits the initials into separate objects. Go to Modify menu > Break Apart again. Now they are converted into art objects.

2. Organising layers, so that each initial is on a separate layer

Add a layer and rename, so that you have one layer for each of your initials.

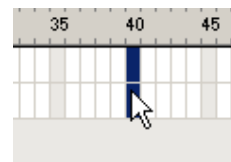
You are going to do something different to each of the initials, so each one will have to be on a separate layer. (At the moment they are both on the bottom layer). Make sure you are on the bottom layer and use the arrow tool to select your second initial. Use Ctrl+X to cut the initial. Now click to select the top layer and use Ctrl+Shift+V to 'Paste in Place'. This pastes the object onto the new layer in exactly the same place as on the old layer. (This command is also accessible from the Edit menu).

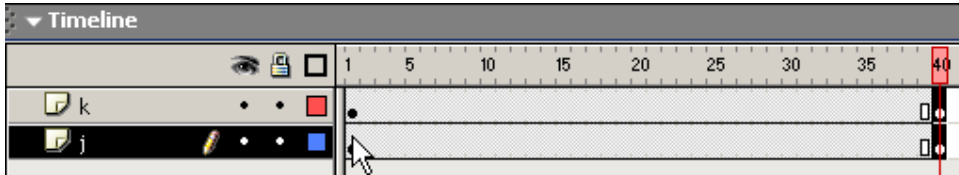


Check with the Show/Hide tool that you have each initial on the correct layer.

3. Using Shape Tween to change the first initial

The animation is going to last until frame 40, so drag the mouse down over both layers to highlight frame 40, then right click and Insert Keyframe.



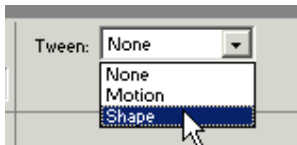


Click on frame 1 of your first initial layer, select the initial and delete it. This is where we are going to draw the shape that will morph into the initial (which is still on frame 40).

Use the Oval or rectangle tool, no stroke and any fill colour you like. Drag out a shape into the space left by the initial.



Now you are going to add shape tween. (Remember that shape tween does not use symbols, unlike motion tween).

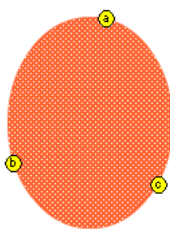


Make sure to select the first frame and then go to the Properties panel. Choose Shape from the Tween selections. You will notice that an arrow has appeared between that keyframe and the next. The frames also turn green, indicating shape tween.

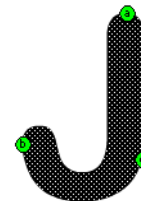
Play the shape tween by moving the playhead to frame 1 and pressing Enter.

4. Improving the shape tween

You can improve the morphing effect by adding 'shape hints'. These tell Flash to map certain points in the first shape to points in the second shape.



Click on the first frame again. Go to Modify menu > Shape > Add Shape Hint (or use Ctrl+Shift+H). A little yellow circle will appear, with the letter 'a'. If you continue to add shape hints, they will be named b, c, d, etc. Place the hints round your shape. Then click on the final frame and move the green shape hints into corresponding positions. Play the movie again and adjust if necessary.

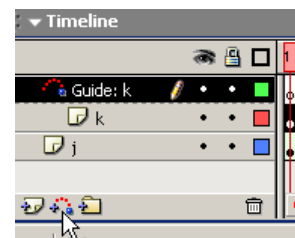


Note: If you highlight all the frames between 1 and 40, you can remove the shape hints by going to Modify menu > Shape > Remove All Hints

5. Adding a motion guide to move the second initial along a path

For anything involving motion, you must have symbols. So select the second initial on the top layer and convert it to a graphic symbol as before.

Now you are going to add a motion guide. Make sure you are on the correct layer. Click on the motion guide tool and you will see the Guide layer pop up above the initial layer.



You can draw the guide with any tool that makes a line. One of the easiest ways is to use the Oval or Rectangle tools.



Click on the first frame of the Guide layer.

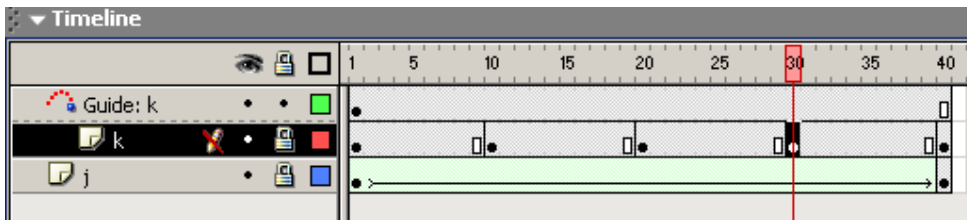
Click on one of the shape tools, making sure the stroke is black and there is no fill. (The guide layer is invisible in the final animation).

Draw out the path you want the initial to follow.

Note: Holding down the shift key while drawing produces a perfect circle. If you are using the brush tool to draw the path, holding down shift will produce a straight line. Make sure that each new line joins on to the one before to make the path. If you want to move your path once you have drawn it, lock the other layers, drag a box round the path to select it and then drag into position.

6. Positioning the initial along the guide line

Insert keyframes at 10 frame intervals along the initial layer:

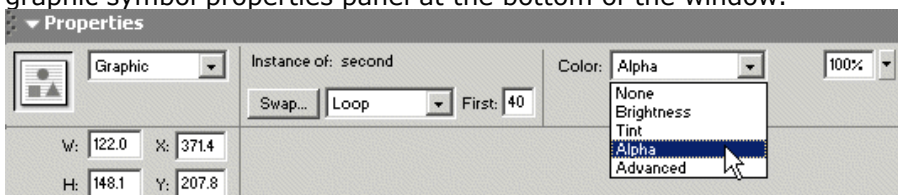


Click on each of the keyframes in turn and position the initial by dragging it to snap to the motion guide path you drew.

If you play the movie, you should see the initial jumping to different positions round the path. All you need to do now is create motion tween between all the keyframes in that layer. If the final 'tween' is a dashed line instead of an arrow, right click on the final keyframe and click Create Motion Tween again.

7. Altering the transparency

You can make this initial change its transparency as it moves along the path. Click on any of the keyframes, then click on the initial symbol itself to find the graphic symbol properties panel at the bottom of the window.



Choose Alpha from the menu and adjust the percentage number or sliding scale. Note that you can alter other colour properties like tint and brightness instead. Now test the movie and save it.

8. Extension

Can you create a banner for a website where every letter of the site name does something different? Remember that file size is important for websites, so use symbols wherever possible. *Note: FAQ1 (p18) explains how to change the shape of the stage before you start.*

[Back to contents](#)

Project 5 – Button

A button controls the starting of the movie
New Key Concept: Button Symbol

1. Adding a button symbol

Note: This project uses the Initials file, so open this first.

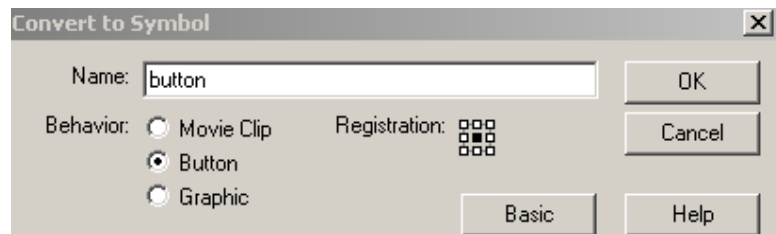
You are going to add a button which will play the movie again when clicked. First you must add a new layer at the top (drag it into the correct position if necessary) and call it 'button'. The button is going to pop up at frame 40, so insert a keyframe at frame 40.

Now create a button shape with the rectangle tool. You can give it rounded corners, if you wish and use the stroke size from the properties panel to alter the border. Drag out the rectangle and position it on the stage.



Note: If a shape has a border (stroke), draw a box round the whole shape to select it before moving, or it will leave its border behind!

Select the button shape and convert it to a symbol (Insert menu), this time choosing the Button symbol option.

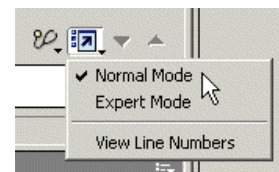


2. Assigning actions to the button

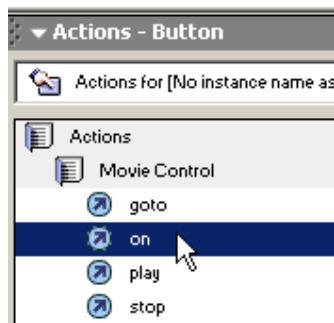


Select the button, making sure that the thin blue frame is showing, then click on the Actions panel title bar for that symbol (above the properties panel).

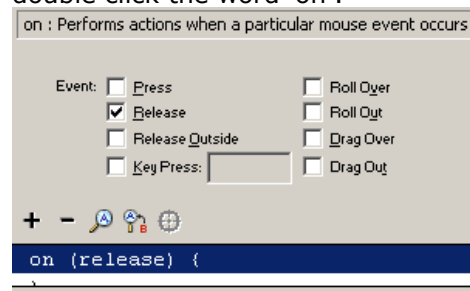
On the right of the Actions panel, check that you are in Normal Mode.



You are going to set the actions so that on mouse release, the movie will go and play frame 1 again.



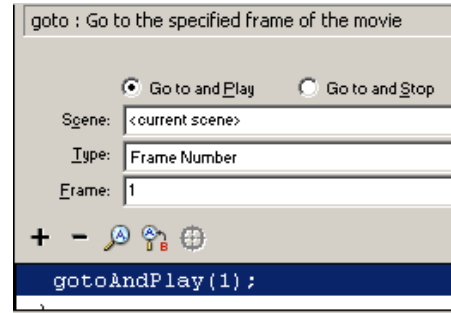
Click to open Actions, then Movie Control, then double click the word 'on':



You do not need to change anything here.

Now double click the word 'goto':
Again there is nothing to change, as you can see from the actionscript. If you change to Expert Mode, you can see the code:

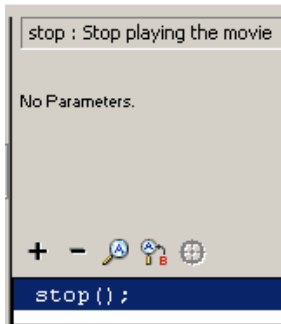
```
on (release) {
    gotoAndPlay(1);
}
```



Now the actions are set.

3. Adding a stop action

If you test the movie, you will see that it is still looping. You need to add a 'stop' action to stop the movie at frame 40. These can be added on any keyframe, but it is good practice to put them on a separate layer, so that they are easy to find and change.



Add a new layer, name it 'actions' and insert a keyframe at frame 40. Go to the Actions panel, change back to Normal Mode and go to Actions > Movie Control. Double click on 'stop'.

Now test the movie.

Finally add some text to the button to tell the user to click. (It is always better to add text **after** the button has been created).

Note: You can add the text as a separate layer to the button symbol itself (double click the button first).

Click here to
see the
movie again

4. Extension

Can you add 'stop' and 'go' buttons to the movie and then use the Movie Control actions to make one button stop the movie when it is clicked and the other button start the movie again?

Remember: Each button should be on a new layer

Double clicking on a button symbol allows you to change how it looks when the mouse hovers over it. Can you alter the buttons so that they glow a different colour when the mouse moves over them? Or can you add a motion clip so that the button animates?

Hint: Insert a keyframe in the 'over' state

Explore the button library – go to Window menu > Common Libraries > Buttons. These buttons have actions already assigned, rather like the Action Buttons in PowerPoint.



By setting the button alpha (transparency) properties to 0, you can make any area of your movie act as a button. Go back to the Face project – can you add a transparent button (and a stop action) so that the movie will not start until the face has been clicked?

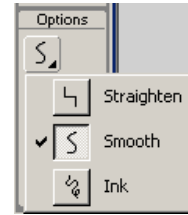
[Back to contents](#)

Project 6 – Fish

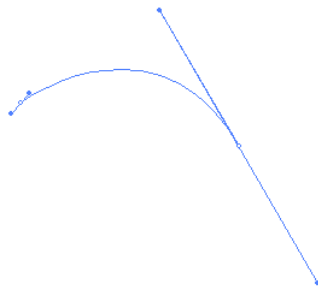
From one graphic symbol, a shoal of fish dart through the water
New Key Concept: Instances

1. Creating the fish graphic symbol

You could draw your basic fish shape using the pencil tool. If so, make sure you choose the smooth option from the drop down selection.



The alternative is to use the pen tool to draw a Bezier curve. Select the pen tool and click on the stage, moving the mouse slightly in the direction you want the curve to go. Then click where the curve will finish and drag the tangent handles until the curve looks right:

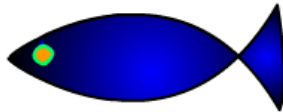


When you let go, it will look like this:



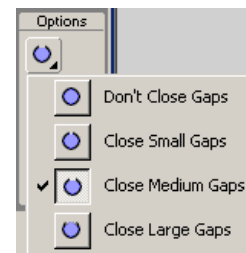
Select the curved line, copy it and paste, so you have 2 identical lines. Then use Modify menu > Transform > Flip Vertical to form the bottom half of the fish.

A straight line for the tail and added eye detail completes the fish, which can be filled with a 3D effect fill:



Note: If the fill tool is not working, it may be because there are gaps in the drawing. Use the Close Gaps options to fix this.

Now, convert this to a graphic symbol as before (Insert menu)



2. Using the graphic symbol 'fish' in a movie clip

Open the Library from the Window menu and check that your graphic symbol is there, then delete the fish from the stage. It is now going to become an animated swimming fish!

Go to Insert menu > New Symbol, as you did in Project 3, and create a movie clip symbol called 'swim'. The timeline for the movie clip 'swim' opens up and you can drag the graphic symbol 'fish' onto the stage.

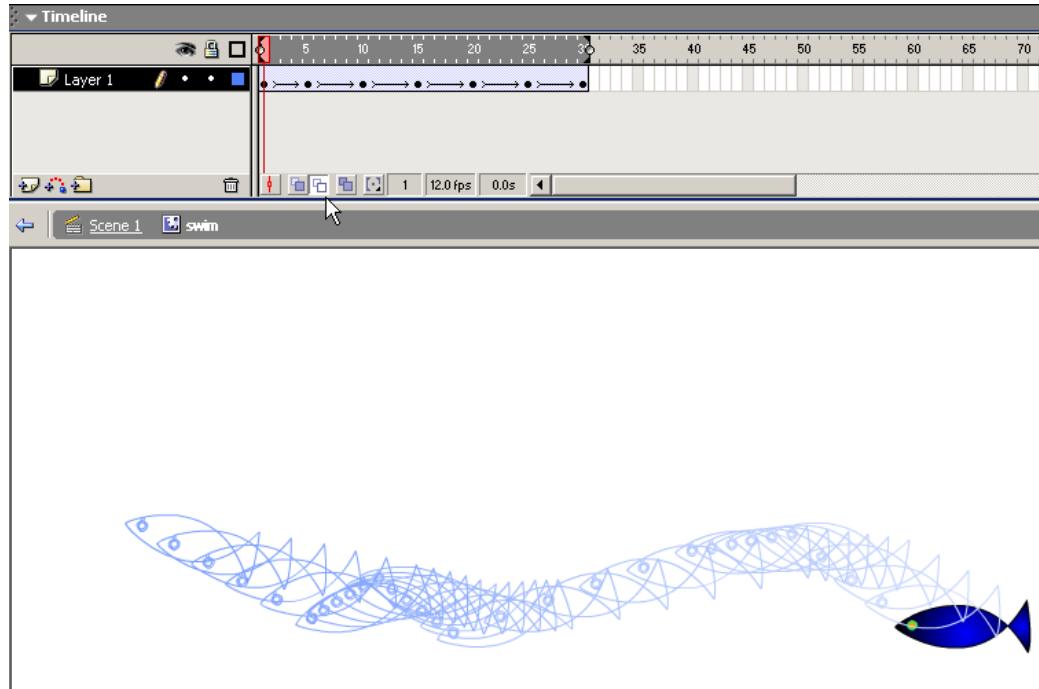
By inserting keyframes at 5 frame intervals and moving and rotating the fish, create an animation that makes the fish swim across the stage. Use the Free Transform tool to rotate the fish (or Modify menu > Transform > Scale and Rotate).



By altering the distance the fish moves each time (sometimes a short distance, sometimes long), a darting effect can be achieved.

Add motion tween to make the swimming action smooth and play the movie clip, adjusting the keyframes if necessary.

Using the 'onion skin' tool shows the path of my fish:



Click on Scene 1 to leave the movie clip timeline and return to the main timeline.

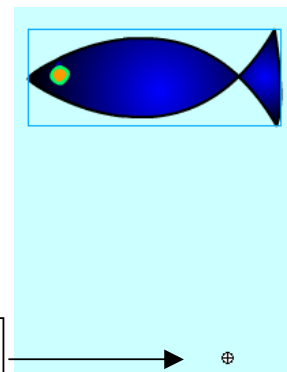
3. Creating the shoal of 'swim' movie clips

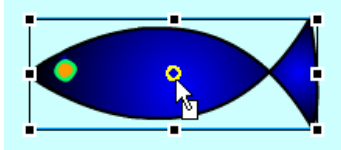
First make a blue background for your fish. Go to Modify menu > Document and change the background colour.

Name Layer 1 'swim', because it is going to contain all your 'swim' movie clips.

Drag the 'swim' movie clip from the Library onto the stage and test the movie by pressing Ctrl+Enter.

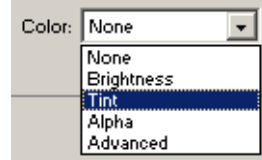
Now you can add an 'instance' of the movie clip which can be altered without changing the original. Drag another 'swim' movie clip onto the stage. It may arrive with its registration point (around which it rotates) far away, so the first job is to move that point.



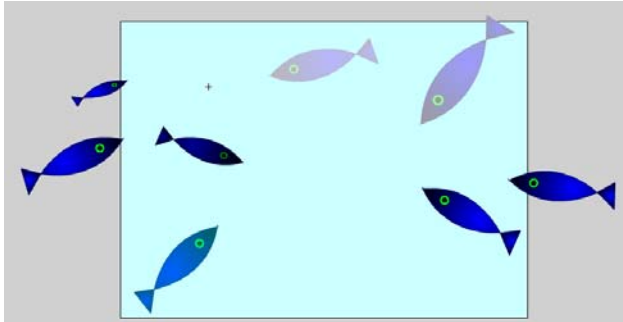


Click on the Free Transform tool and then drag the registration point to the centre of the fish. Now you can rotate the fish, so that it is setting off at a different angle from the first fish. You can also scale the instance to be larger or smaller.

Finally, you can change the colour. Click on the instance and then alter the colour tint or brightness in the properties panel.



Continue to add fish in the same way. Some can be swimming from the other direction. Move the registration point first, as before, and then flip the fish from the Modify menu > Transform.



Some fish can start from off the stage, so that they are moving on to the stage as others are leaving it.

4. Extension

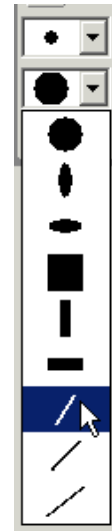
The shoal is effective, but it is obvious that they all share the same movement pattern. Can you create a 'swim2' layer for all the instances of a new movie clip, with a different swimming pattern?

Hint: You can duplicate the 'swim' movie clip and then alter that. Right click on 'swim' in the library and choose duplicate. Re-name 'swim copy' to 'swim2', then double-click to alter the movie clip.

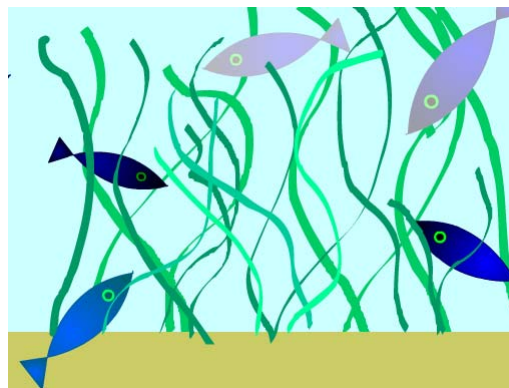
Some waterweed would add to the scene and can be easily drawn using the diagonal brush tool. Remember that you can use graphic symbols and instances to make the file smaller.

Can you make the fish appear to swim in front of some of the weed and behind other parts of it?

Hint: Use the position of your layers to achieve this.



[Back to contents](#)



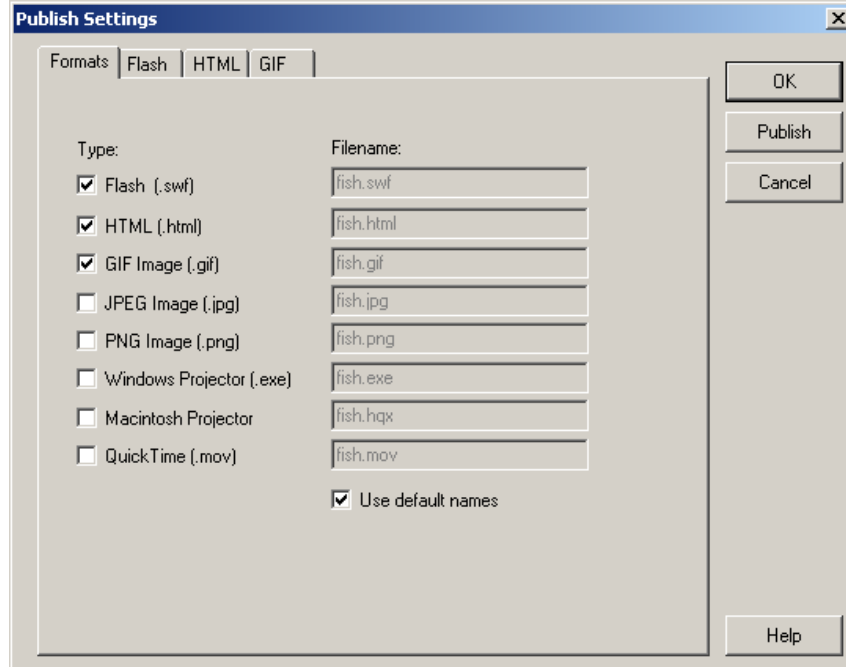
Publishing the movie

First the movie must be saved.

Then click the arrow tool and go to the properties panel, clicking on the Flash Player 6 button.



You now have various options. Ticking each box makes a tab appear behind the Formats tab:



If you tick Flash (.swf), a Flash file is published to where you saved the movie file. You can then embed this into a web page (in Dreamweaver, go to Insert > Media > Flash).

If you tick HTML (.html), a web page containing your movie is published.

If you tick GIF Image (.gif), an animated gif is published.

In each case, clicking on the relevant tab allows you to change settings. Then just click on Publish.

Now go to your file and check the file size. If you have used symbols correctly, your file size should be really small. Who managed to make the smallest movie?

[Back to contents](#)

Frequently Asked Questions

(also see the 'Hints' and 'Notes' through the course)

Q. How can I change the shape of the stage?

Think ahead! This is easy to do before you start making the movie, much harder once the movie is finished because your movie has been made to fit a particular shape. Simply click the arrow tool, go to the Properties panel and click 'Size'.

Q. Why won't it let me draw on this layer?

Three things to check:

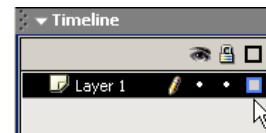
Have you got a keyframe inserted?

Is the layer that you are trying to draw on being hidden by a layer above it?

Does the colour of the brush/pencil match the background colour?

Q. Why have my objects all turned into outlines?

You have clicked on the Outline tool by mistake. This tool is used to help you line up layers. Just unclick it.



Q. Why won't it let me Convert to Symbol?

Have you selected the object first?

Q. Why are other things moving when I try to move one object?

You have probably forgotten to put the new object on a separate layer – delete it and draw it again on its own layer.

The other common problem is if, when converting to symbol, you managed to select parts of other layers by mistake. To solve it, drag the existing symbol in the Library to the bin and start again.



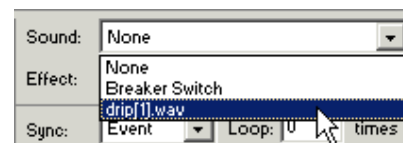
To prevent it happening in the first place, lock other layers before selecting the object.

Q. Why can't I set the stroke tool to 'No Stroke'?

You only need this option if you are using the Oval or Rectangle tool, therefore click the tool first and then you will be given the option.

Q. How can I add sound?

Save your sound as a .wav file. Insert a new layer called 'sound' and insert a keyframe where the sound is to start. Then go to File menu > Import and navigate to the sound. Now click on the keyframe and go to the properties panel. Click on the drop-down menu to find your sound.



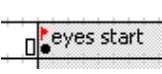
You can now edit the sound 'envelope' with the Edit button in the properties panel.

Q. How can I move all my frames along , so I can fit something in before the action starts?

Just Select All Frames from the Edit menu and drag with the arrow tool.

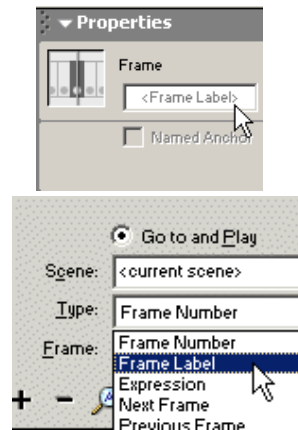
Q. Because I've moved all my frames, the button I set to go to frame 1 is not working properly!

You can solve this by setting a frame label. Click on the keyframe where the action starts and give the frame a label on the Properties panel. A label appears in the timeline.

 When you set the actions in the Actions panel, you can set the goto command to go to a Frame Label instead of a Frame Number, by clicking the drop down Type options.

Then you can select the correct label from the drop down Frame options.

This means that the action will always go to the right frame even if that frame has moved.

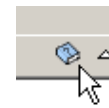


Q. How do I make new scenes?

Insert menu > Scene. If you test the movie with Ctrl+Enter, it will play all the scenes. Ctrl+Alt+Enter tests the current scene. Note that you can set actions to go to different scenes, by selecting the Scene number from the Actions panel.

Q. How can I find out more about how ActionScript works?

A good start is to click the little book-shaped tool at the right of the Actions panel. This brings up a window that explains each action and gives examples.

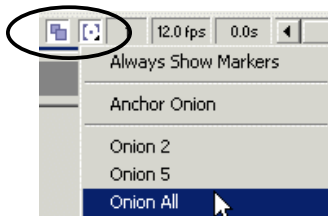


Q. How can I change the shape of a symbol (eg crashed car) without changing it throughout the movie?

Pull an instance of the symbol onto the stage and then go to Modify > Break Apart. The object is no longer a symbol or an instance and you can do what you like with it. Then you can convert it to its own symbol if you wish.

Q. How can I move my entire movie round the stage?

First, make sure that none of the layers are locked (if you want to move only some layers, lock the other ones).



Then click the Edit Multiple Frames tool and choose Onion All from the Modify Onion Markers tool.

Go to Edit menu > Select All. You should now be able to move the entire animation.

[Back to contents](#)

Online Flash MX Tutorials

Online Flash MX tutorials are often dedicated to achieving very complicated irrelevant effects and are more off-putting than helpful.

These tutorials are thoroughly recommended:

Mark Weddell, Primary ICT Co-ordinator

<http://www.ks2.info/FlashInEducation/home.htm>

This would be a useful starter for S1 – a simple rocket launch with start and stop buttons. Very clear.

The following 5 tutorials by John Lee are excellent:

<http://www.devx.com/webdev/Article/9724/0/page/1>

Learning to Draw in Macromedia Flash MX

<http://www.devx.com/webdev/Article/10251/0/page/1>

Learning to Animate in Macromedia Flash MX

<http://www.devx.com/webdev/Article/10639/0/page/1>

Slim Down Your Flash MX Animations with Graphic Symbols and Movie Clips

<http://www.devx.com/webdev/Article/11865/0>

Push Flash Interactivity with ActionScript Buttons

<http://www.devx.com/webdev/Article/15685/0>

Activate Your Flash Animations with ActionScript

Two more sets of Flash introductory tutorials:

<http://www.echoecho.com/flash.htm>

<http://www.w3schools.com/flash/default.asp>

Step-by-step pre-loader tutorial

<http://at14.hostvelocity.com/~profal/cis127/flash/preloader-movie.htm>

Click the Contents button then Elevated, for some advanced ActionScript tutorials.

Please let me know if you find good online Flash MX tutorials:

jo@sojomedia.com

[Back to contents](#)