


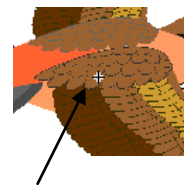
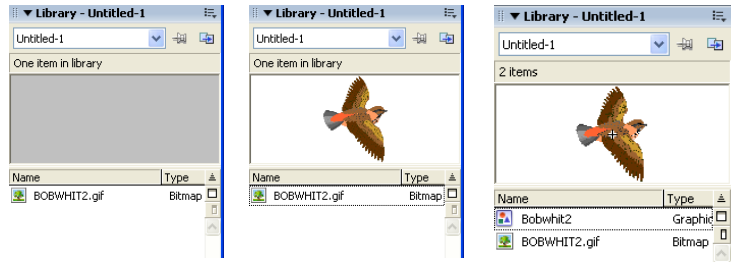
Flash Fundamentals -- Lesson 2

Symbols

One of the big advantages of Flash in the Internet world is that it keeps file sizes very small even though it uses graphics. You've already seen how it wipes out unnecessary graphic sections if they are covered up by another graphic (when not using layers). Another way is by using symbols. You can convert any graphic image, movie clip, button (with Flash action) to a symbol and store it in the Library for that file. You can also import other graphic images etc to the Library so that you can use them in your Flash document.

Exercise 1

1. Start a new document in Flash
2. File -> Import -> Import to Library
3. Go to R:\Subjects\PD\FIash PD and load BOBWHIT2.gif
4. If you do not have the Library panel open, open it now (Ctrl+L is the shortcut)
5. Click on BOBWHIT2.gif in the list and a picture of this bird should appear in the Library window
6. We can now click and drag (from the name of the graphic or the picture to copy this bird from the Library to our page. Now press F8 to convert it to a *graphic* named BOBWHIT2 (click the middle square for registration). Use this symbol not the gif from now on.
7. Place 3 birds on your stage. The big advantage is that the computer only remembers the bird ONCE, so no matter how many birds we place on our stage, the file size stays small.
8. Now using the free transform tool  click on two of the birds and make them smaller (or stretch them or rotate them ... whatever). Even though they have come from the same stored graphic, we can alter them individually.
9. If we want to make GLOBAL changes to our birds though, we can do so by changing the saved image. Double-click on the bird in the Library (name or picture).
10. You are now editing your image. See the change in the timeline and note that there is a small circle with a cross in it in the middle of your bird.
11. Rename Layer 1 to Bird and add a layer above your bird. Rename this new layer *Twig* and in this layer draw a twig in the bird's mouth (Pencil tool). Click on *Scene 1* at the top of the timeline to exit the editing window and to return to your scene. ALL your birds should now have twigs in their mouths because you have edited the master copy.



NB Do not delete the bmp file because your symbol is based on that and if you delete it your birds will disappear too. (This is why a similar name to the gif image was chosen for the symbol – this way you know they are related)

This is a basic introduction to symbols because we need to use them for **motion** tweening.

Tweening

Motion Tweening

The term "Tweening" is derived from "in between", and is an essential technique for creating movement and change in a movie while minimising the file size.

Sometimes you want to add an effect that is graduated over several frames. For example, moving a car from the right side of the movie to the left side. Instead of moving the car a little bit on each frame (as you did in keyframe animation), you can simply position the car on the first frame, then insert a keyframe where the car should stop and finally tell Flash to **tween** between the two keyframes.

Tweening simply means going from one keyframe to another while taking small steps for each of the ordinary frames in between. You create keyframes at important points in the Timeline, and let Flash create the frames in between.. Keyframes appear as circles in a frame. A keyframe for a layer that contains no graphics is blank.

Exercise 2

1. Using the file from Exercise 1 (or reopening it) remove all the birds but one.
2. Resize your bird, if necessary, so that it takes up less than 1/8 of the screen.
3. Place your bird in the bottom left-hand corner of your stage.
4. Insert a keyframe at Frame 30 of your bird layer (which you may want to rename *Bird*)
5. Now left-click in Frame 30 and while in this frame use the selection tool to drag your bird to the top right corner of your stage.
6. If you run the movie now, your bird will stay in the bottom left corner for 29 frames and then jump briefly to the top right before returning to the bottom left again.
7. We need to tell the computer to put in the intermediate stages. Right-click anywhere on the timeline on the Bird layer BETWEEN the two keyframes and choose Insert Motion Tween.
8. If all went well, you should have an arrow joining the two keyframes with a light blue/mauve background.
9. Test your movie.
10. OK ... he's moving. Not very realistic???

Exercise 2

1. Start a new file
2. We are going to import an animated bird gif which has flapping wings!
3. File -> Import -> Open External Library
4. Browse to R:\Subjects\PD\Flash PD and open Graphics4 fla
5. A new (additional) library will open which you can dock with the others to get it out of the way.
6. Choose Bird from the list under Animated GIFs and drag it to your stage. It should automatically appear in the Library for your document.
7. Recreate Exercise 1 using this graphic and test it to see the difference.
8. Better? Save.

Motion Guide Tweening

At present our bird flies in a straight line between the points, but we can give it a path to follow.

Exercise 3

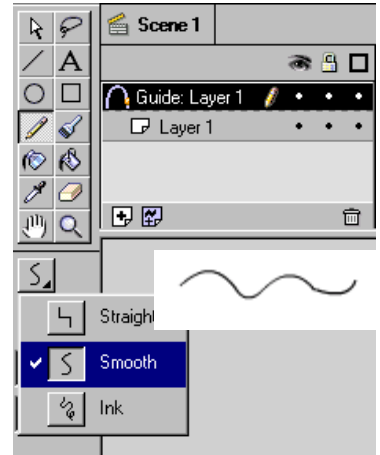
1. Select the Bird layer, and then choose Insert > Motion Guide. A new layer appears labelled Guide: Bird.
2. Click on the Motion Guide Layer to make sure it is the active layer. (Click on the layer name, where it says "Guide: Bird").

3. Choose pencil  in the toolbox. (Or press P on the keyboard)

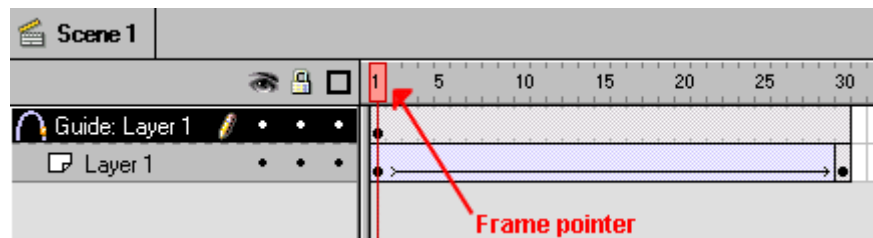
4. Make sure pencil mode is set to "Smooth".


5. With the pencil draw the line you want the bird to fly along. For example like this:

(Hint: Do not make complex patterns until you're familiar with the technique).



6. Now adjust the frame pointer so it points to frame 1.

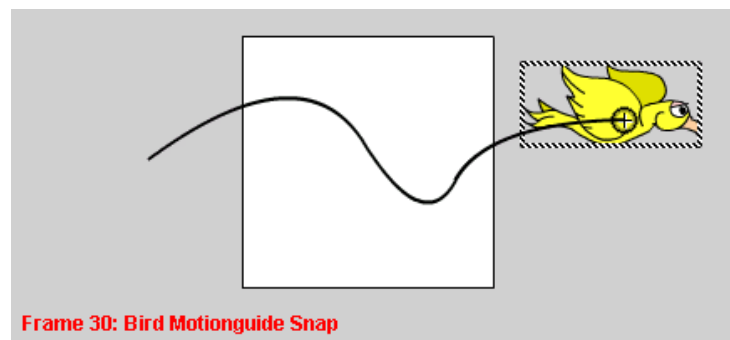


7. Make sure the Snap button  is activated (or choose View > Snap in the menu, to activate snapping).

8. With the mouse, place the bird so that its centre is at the beginning of your motion guide. (The centre is indicated by a small + when selected). A black circle appears when the bird is close to snapping to the motion guide.

(It can sometimes be hard to get the symbol to snap to the guide. Eventually it will though. Try zooming in or out if you just can't get the bird to snap to the guide.)

Release the mouse button when the bird is snapped to the guide.



9. Now adjust the frame pointer so that it points at frame 30. Repeat the process placing the bird at the end of the motion guide.

10. Congrats! You have just created a Motion Guide Tweening! The bird will now follow the motion guide when you play the movie.




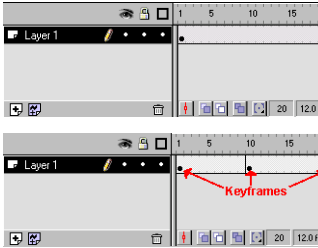
11. Press Ctrl+Enter to test your movie. You can choose to click under the 'eye' icon on the Motion Guide layer to make the path line invisible.

Exercise 4 -- Orient to path direction.

1. If, say, your motion guide were a circle, you would have the bird fly in a thrilling loop. However it would look kind of odd, since the bird would only follow the circle, but not actually point the nose in the direction of the circle. During the entire loop the bird would have its head pointing to the right). Eventually the bird would fly backwards. Quite a thrill maybe... but .. not too realistic)
2. If you want the bird to actually follow the circle, not only in movement, but also in direction, you should double click the keyframe in frame 1 on the Bird layer. This will reopen the properties box. Choose the Frame tab, and select Motion for the Tweening drop-down menu. Select the "Orient to path direction" option, and click OK.
3. Try changing your motion guide and testing it out.

Note: The image you tween in a motion tween must be a symbol or a group

Tint Tweening

1. Create a symbol. Choose Insert > New Symbol in the menu (or press Ctrl+F8). Enter a name for the symbol. A Symbol Properties box appears. Enter **MySymbol** in the "name" field. Make sure the "graphic" option is selected. Click OK. After clicking OK, you are taken to the symbol generator in Flash.
2. Enter the text to act as a symbol. Choose Text Tool in the toolbox, and open the Character Panel from the Window menu. Choose font size 48 and bold and then enter your first name. It is important that the font is not too thin.
3. Jumping back to the movie from the symbol generator. To exit the symbol generator and return to your movie Click the scene icon in the upper left corner:
4. Inserting the symbol into the movie . Open Library by choosing Window > Library in the menu (or pressing Ctrl + L). Click where it says "MySymbol" in the symbol window you just opened. With the mouse, drag your name from the symbol library into the canvas of the movie. Now you're ready to create the tint tweening.
5. Entering keyframes in frame 10 and frame 20. Position the frame pointer on frame 10 then press F6. Repeat this step on frame 20.

We are going to leave frame 1 and frame 20 identical to allow for a smooth effect when the animation loops. Just need to change frame 10.
6. Adding tint effect to frame 10. Select frame 10 by positioning the frame pointer at this frame. Click the symbol with your name on it (On the movie canvas - not in the symbol library). In the Properties Panel choose: Tint from the Colour drop-down list. Enter 100% for the tinting amount – the top box on the right. (If it is set to zero, no tinting will appear). Choose a different colour from the colour palette presented.
7. Now set the motion tweening in the two areas between the keyframes.

That's all! You have created a tint tweening.

You can add tint tweenings to ANY symbol you like. Try out tint tweening on an imported image and see what happens.

Just remember that the object must be a symbol. Tint effects only work on symbols, and can't be added to things that are drawn directly on the canvas of the movie.