



Flash

LESSON 3

Animation

An animation is a series of frames. Before computers, each frame of an animation had to be drawn individually. Artists drew the essential poses (Keyframes) that defined a character or object and the way the character or object moved.

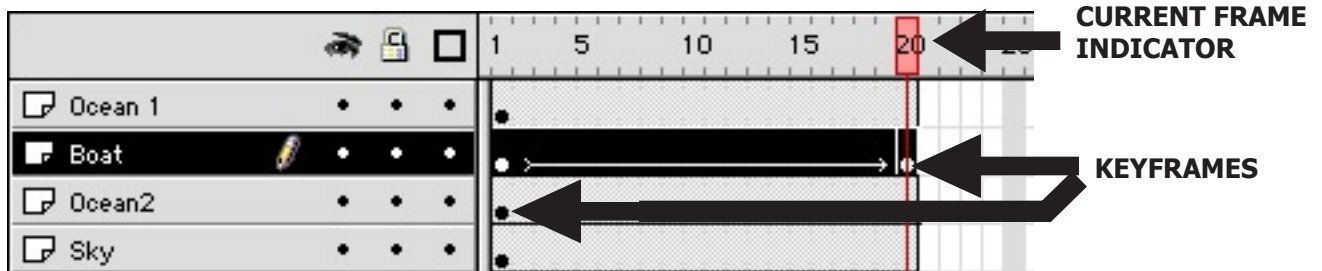
To create the illusion of smooth movement, many addition frames had to be drawn to move the character or object from one pose(keyframe) to another. Drawing the "in-between" frames took most of the animators time. Flash makes animating easy. The Flash program draws all the "in-between" frames automatically.

KEYFRAMES

So what exactly is a keyframe? A good writer makes a character come alive with a few telling details. A good animator must draw a few poses that capture the essence of an action or character. These essential poses are the keyframes for the animation. The other frames, the frames between the keyframes, are the "in-between" frames.

TIMELINE

You use the Timeline in Flash to arrange the frames that make up your movie. Each frame in the movie appears on the Timeline. Notice the frames are numbered in increments of 5 across the top of the Timeline. Keyframes are marked with a black dot. The arrow on the boat layer shows that movement is taking place on that layer.

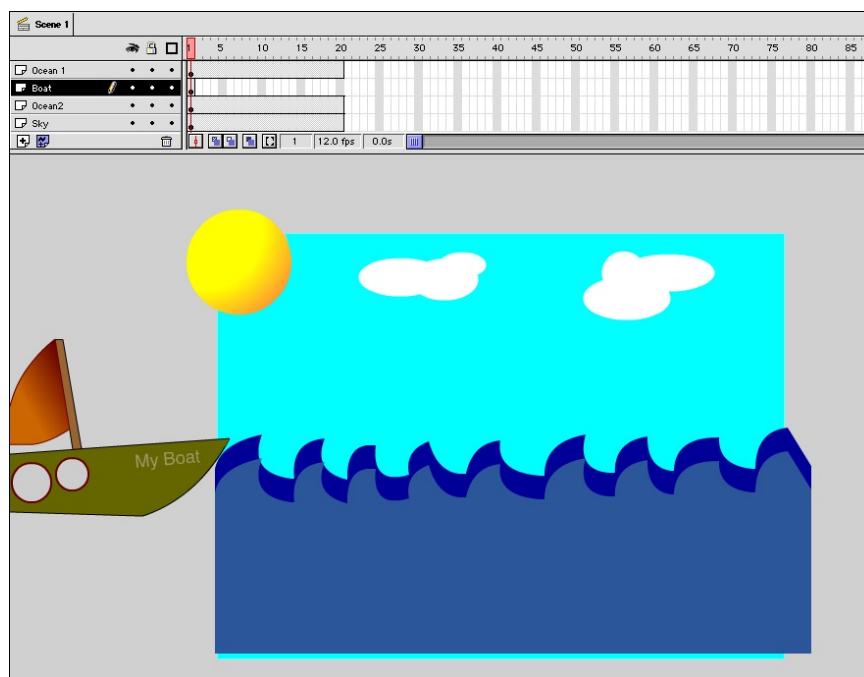


Timeline with keyframes in Frames 1 and 20.

Enough talk, let's animate!

To animate the sailboat:

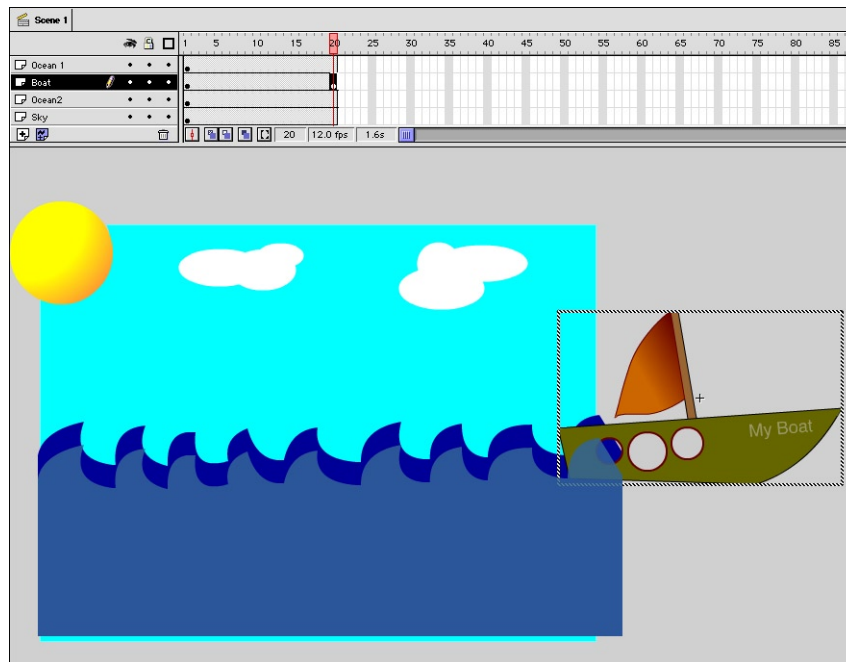
1. Make all your layers visible and unlock any locked layers - see Lesson 2 if your forgot.
 2. Click on Frame 20 of the Ocean 1 layer. Choose Insert->Frame to insert a frame. Now in the Ocean 1 layer, the frames between 1 and 20 are tinted gray to indicate that they are motionless frames (see below). The sailboat disappears because Frame 20 of the boat layer is still blank.
 3. Click on Frame 20 of the Ocean 2 layer. Choose Insert->Frame or press F5 to insert a frame. Now in the Ocean 2 layer, the frames between 1 and 20 are tinted gray to indicate that they are motionless frames (see below)..
 4. Click on Frame 20 of the Sky layer. Choose Insert->Frame or press F5 to insert a frame. Now in the Sky layer, the frames between 1 and 20 are tinted gray to indicate that they are motionless frames (see below)..
- Note:** When your frame indicator is positioned after Frame 1, the boat is not visible, because there are no frames yet on the boat layer after Frame 1.
5. Select Frame 1 in the Boat layer. You can see the sailboat and both ocean shapes.
 6. Drag the sailboat to the left edge of the stage (see below).



In Keyframe 1, the sailboat is at the left of the Stage.

7. Select Frame 20 of the Boat layer and choose Insert -> Keyframe (or press F6).

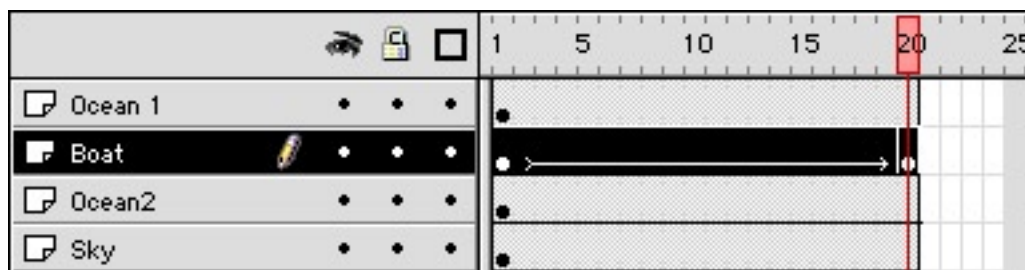
8. Drag the sailboat to the right side of the stage (see below).



In Keyframe 20, the sailboat is at the right edge of the Stage.

9. Select Frames 1-20 in the Boat layer and choose Insert -> Create Motion Tween.

Flash generates the "in-between" frames. Deselect the frames and notice that the frames are light blue so you can easily recognize them. An arrow extends from keyframe 1 to keyframe 20.



Your timeline will look like this after using Motion Tween.

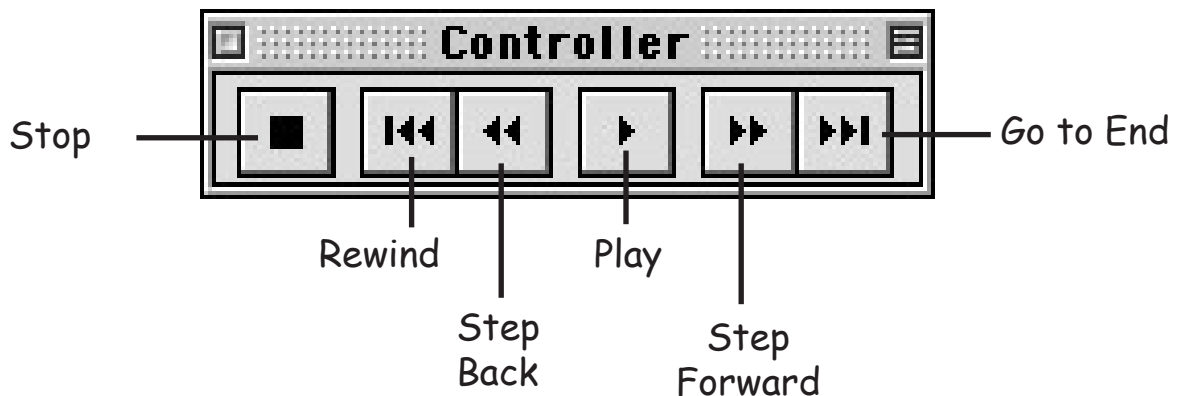
10. Save your work! The instructions on the next page will show you how to preview your animation. Don't forget to save your work.

PLAYING YOUR MOVIE

Not only can you play movies in Flash several different ways. The easiest way is to use the VCR type Controller that comes with Flash.

To play your movie:

1. To play your movie, open the controller by choosing Window->Controller. The controller appears on the screen. Drag the controller to a handy spot on the screen.



Like a video, your movie must be rewound before you can play it. Rewinding the movie resets the Current Frame indicator to Frame 1.

2. Click the Rewind button on the Controller to rewind your movie.
3. Click the Play button on the Controller to play your movie.

Cheer!

CREATING A MOTION GUIDE

You can use a Motion Guide to make the movement of an image more interesting or realistic. A Motion Guide creates a path for the image to move along. The path provides a guide for the placement of the image.

Instead of going in a straight line, you will make the sailboat bounce on the waves. The first thing to do is to create a motion guide.

To create a motion guide:

1. Move the current frame selector to Frame 1.



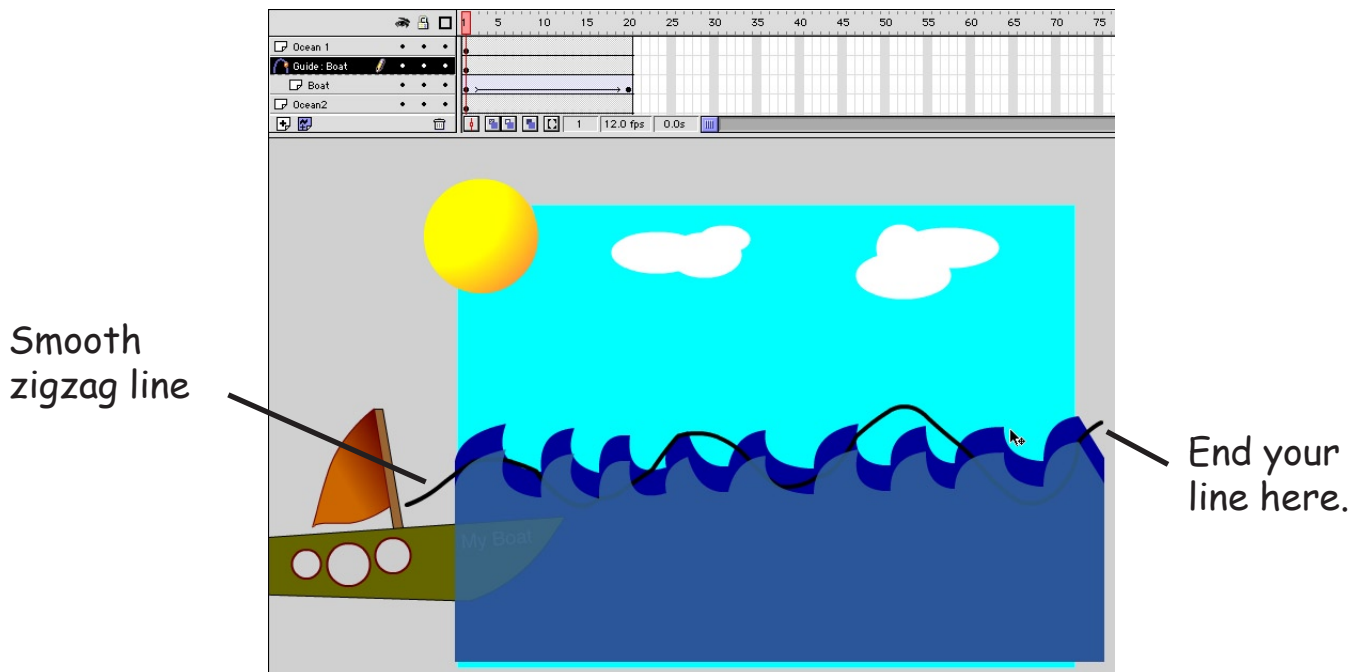
2. Highlight the boat layer by clicking on it.

3. Click the Add Guide Layer icon. A new layer is created above the Boat layer. Note the dashed lines between the two layers (showing that the layers are linked) and the Motion Guide icon (a blue arc with an orange dot). The layer is automatically named Guide:Boat.



4. Select the Guide layer by clicking it and choose the Pencil tool. Choose the smooth mode for the pencil.

5. Draw a smooth zigzag line from the left side of the stage to the right side of the stage (see below). Start your drawing from the front middle



The motion guide is a smooth zigzag line.

If you did step 5 correctly, the boat will move down. Don't worry if the boat didn't move, we'll fix it later.

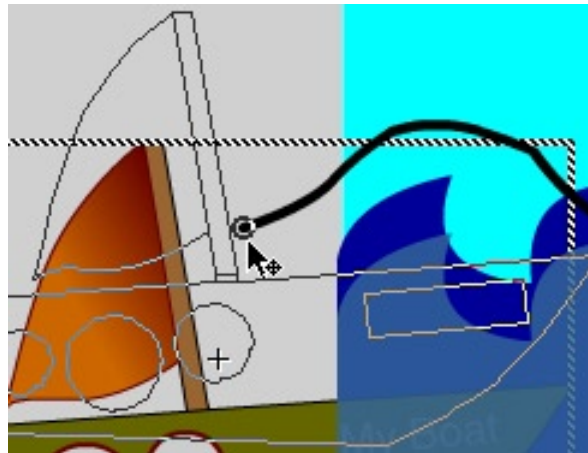
6. Play your movie using the controller. If your boat follows the path and moves up and down, give your partner a high five and skip to step 14. If your boat doesn't move up and down then go to step 7.

7. Move the current frame selector to Frame 1.



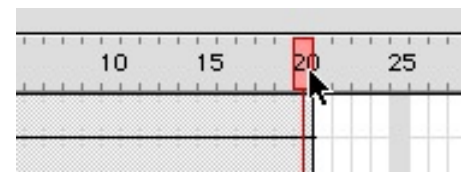
8. Select the Boat layer by clicking it.

9. Click and hold the middle point of the boat - the middle looks like a cross hair. Drag the boat to the beginning of the guide line (see below). It should snap on. Release the mouse button when the boat is in position.



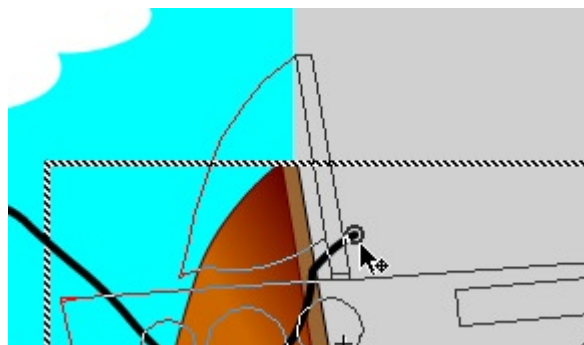
The boat "snaps" on the guide line.

10. Move the current frame selector to Frame 20.



11. Select the Boat layer by clicking it.

12. Click and hold the middle point of the boat - the middle looks like a cross hair. Drag the boat to the end of the guide line (see below). It should snap on. Release the mouse button when the boat is in position.

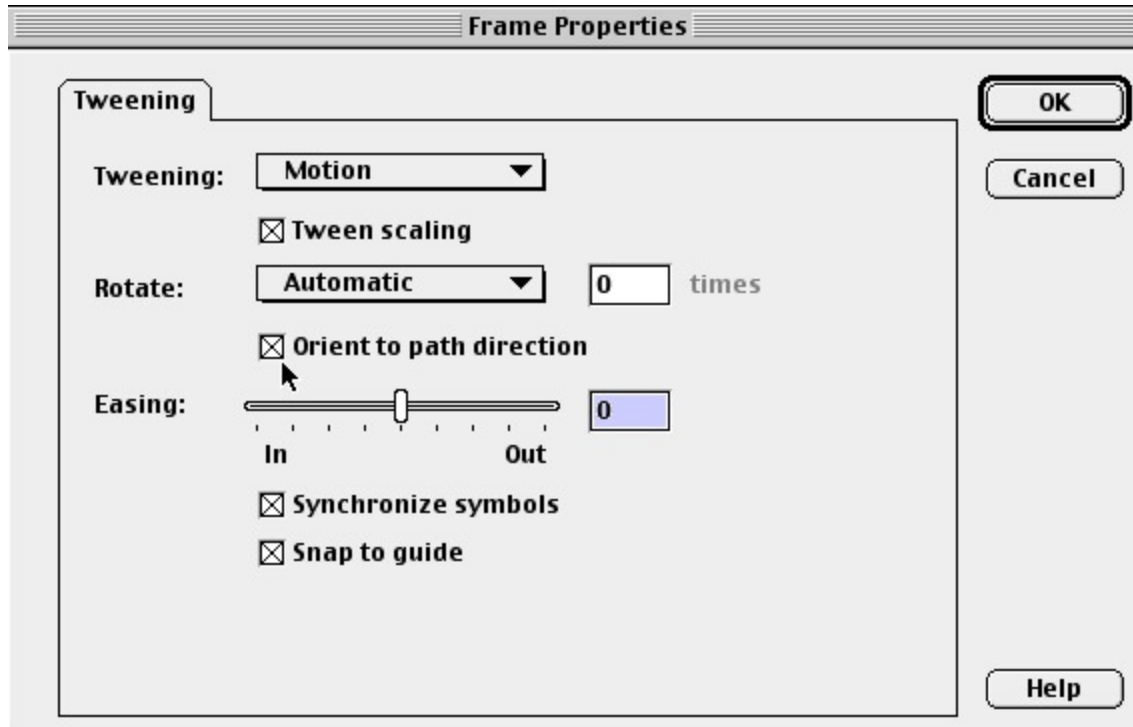


The boat "snaps" to the guide endpoint.

13. Play your movie using the controller. If your boat does not follow the path and move up and down then go back to step 7.

14. Highlight the boat layer by clicking it.

15. Choose Modify->Frame from the menu bar. The Frame properties window opens.



16. Click in the Orient to path direction box. An X should appear in the box. Click OK to close the window.

17. Choose Control->Test Movie from the menu bar. You will see a full screen preview of your boat movie.

18. When you are bored of watching your boat move up and down on the waves, close the window.

19. Save your work!!!

Congratulations, you made your first movie. Shake your partners hand.

For a higher grade, make the ocean waves move back and forth.

20. Show your instructor the completed movie to receive credit.

In Lesson 4 you will learn to make an animated character.