



Introduction to Flash Animation

There are two methods you can use to animate your objects in Flash: frame by frame and/or tweening.

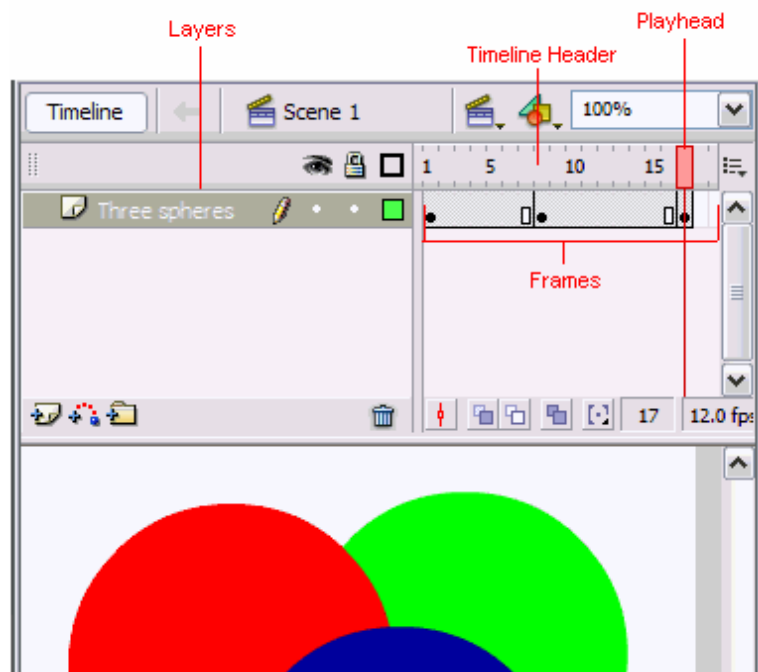
Frame by frame = manually changing your objects on the Stage in each frame to create the illusion of movement

Tweening = short for “in between”. You specify the object’s starting point and its end point and Flash creates all the objects “in between.”

The Timeline organizes and controls a document's artwork over time using *layers* and *frames*. When I say *frames*, think of the small square segments of a filmstrip—frames are what divide a motion picture into still shots. So like films, Flash documents divide lengths of time into frames. Sticking with this filmstrip analogy, when you think of *layers*, think of stacking multiple filmstrips on top of one another. Each layer contains a different graphic element that appears on the Stage. When all the layers are stacked together, you can see the complete picture. But you can isolate different elements of that picture by putting each element on a different layer.

Every new Flash document begins with a single layer with a single frame on that layer. When this is all you have, it's kind of like working with a single page of paper. But Flash is really fun and powerful when you start adding layers and frames to the mix. We'll get into that very soon. First, let me show you where everything is.

The major components of the Timeline are layers, frames, and the playhead. Layers are listed in a column on the left side of the Timeline. Frames contained in each layer appear in a row to the right of the layer name. The Timeline header at the top shows frame numbers. The playhead shows the current frame displayed on the Stage. As a Flash document plays, the playhead moves from left to right through the Timeline, showing the Stage for each frame quickly as it goes. This is how Flash helps you create animation.



There are two different kinds of frames that we'll be dealing with; *frames* and *keyframes*. Let's start by going over how to tell the difference between the two types.

Create a new Flash document (**File > New**). The first frame of the Layer 1 layer is known as a keyframe. We know this because of the circle in the middle of the frame. Right now, this keyframe is empty, meaning there's no artwork on the Stage for this frame. We can tell that because it's shaded white.

Select the **Brush** tool and draw a squiggle on the Stage and all that changes. The first frame is still a keyframe (the circle's still there) but now there's artwork on the Stage, so the circle is colored black and the frame itself is shaded gray.

If you're having trouble seeing the difference, go back to the Frame-View pop-up menu and change the Frame Width from *Normal* to *Large*.

Keyframe = signify that something has either just been created or has changed. The first frame on any layer is always a keyframe.

Static frame = displays the same content as the frame before it. In many animations, you'll want the action to pause for a moment. To create these pauses, you use static frames.

Empty keyframe = a completely blank frame in the Timeline.

