

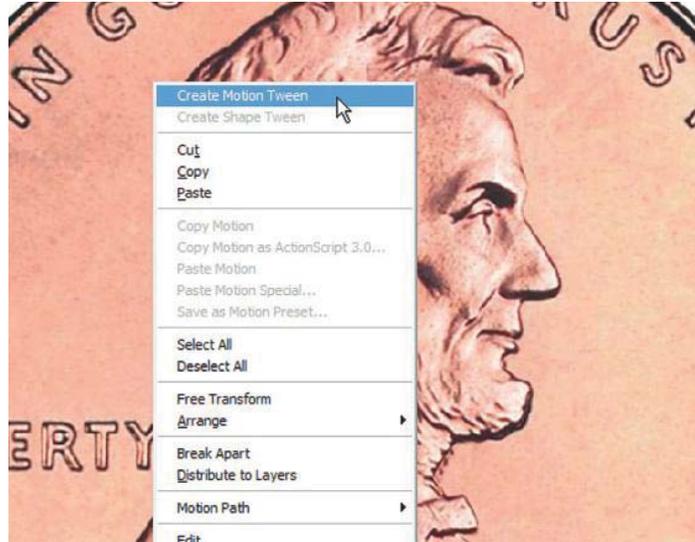
4

Motion techniques

Motion tweens and 3D



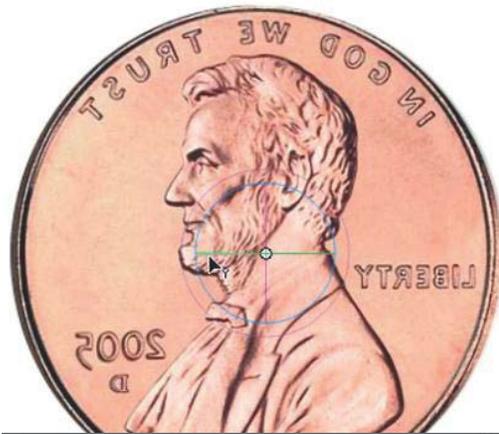
FLASH HAS ALWAYS BEEN a 2-dimensional design and animation program. Making a 2-dimensional object appear to spin in a 3-dimensional space has been a popular effect but very difficult due to the lack of that 3rd dimension. Flash CS4 and CS5 now offer 3D capabilities in the form of 3D Rotation and Transformation tools.



1 Let's start with the image we want to spin. It can be anything you want but I have chosen a coin because it seems this is the exact object many people want to use to animate spinning anyway. I am using a bitmap of a 1 cent US penny but you can use a coin of any currency either as an imported bitmap or drawn with Flash's drawing tools. Either way, make sure to convert the artwork to a Movie Clip symbol and then right click over it and select Create Motion Tween.



4 Next, position the play head marker on the last frame and rotate the object the rest of the way so it is facing as it was in frame 1. Playback your animation to see the coin spin in 3D space.



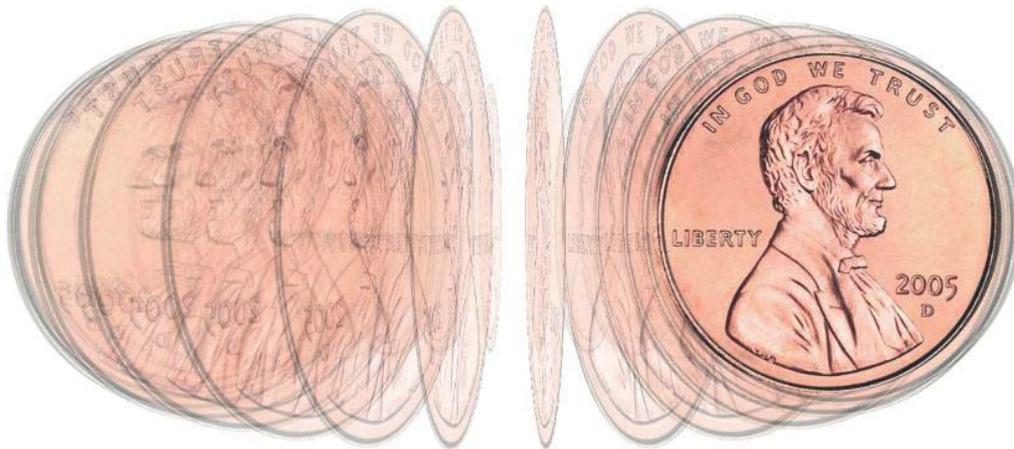
5 But wait! Something's not right. Flash spins the coin to the right during the first half of the animation but then reverses direction during the second half. This is easily corrected by placing the play head on the frame just after the second keyframe and rotating the object slightly more.

How to Cheat in Flash



2 Select the 3D Rotation tool **w** and with the playhead on a frame other than frame 1, drag the object along its Y axis (horizontally).

3 Do not try to rotate the coin 360 degrees and expect Flash to know what you want it to do. You will need to divide the animation in half by stopping the coin rotation just short of the half way point.



6 With the 3D rotation complete, try experimenting by editing the object's position relative to its center point. Edit the instance of the object by double clicking on it. Move the object away from the center point (represented by the "+" cross hairs). The further you move the object from its

center point, the more dramatic the effect of the 3D rotation. Here I turned on the Onionskin feature so you can see each frame of the effect when the symbol has been moved horizontally from its own center point.



HOT TIP

Experiment further by adjusting the Perspective angle and Vanishing point in the "3D Position and View" section of the Properties panel. You can get some very interesting 3D perspectives by applying more depth to your object.