

## Making a Real Preloader in Flash MX

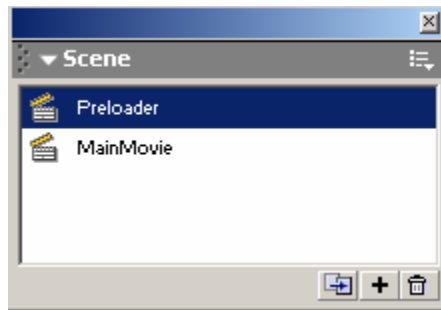
-Brian Hogan

When you have a large movie, you can guarantee that your audience will have a long wait. However, users don't like to see nothing happening on their screen. A common practice is to provide the user with some sort of status bar or marker that tells them how much longer they have to wait.

This brief tutorial will show you how to make a Flash preloader using some of the built-in variables in Flash. We're going to use the amount of data downloaded at a given point in time and compare it to the total size of the Flash movie. This way, we take into account any embedded MP3 files and other data, instead of just counting loaded frames.

This tutorial assumes you already have a good handle on Flash, and that you have done some ActionScripting before.

1. Open a new Flash project and open the Scenes window (press Shift + F2)
2. Create two scenes. Call the first scene 'Preloader' and the second scene 'MainMovie'.



Be sure your scenes are ordered this way. You can drag scenes above and below each other to control the order.

3. Double-click the first scene and press Ctrl+L to open the Library. Create a new movie clip called "Loader"
4. Create two layers. The bottom layer should be called 'Filler' and the top layer should be called Border.
5. On the Border layer, create a rectangle with a stroke and no fill.
  - a. Make the duration of the Border layer stop at frame 100 (Go to frame 100 and press F5)
6. On the Filler layer, at frame 1, create a small rectangle that fills in only a small portion of the bordered rectangle.

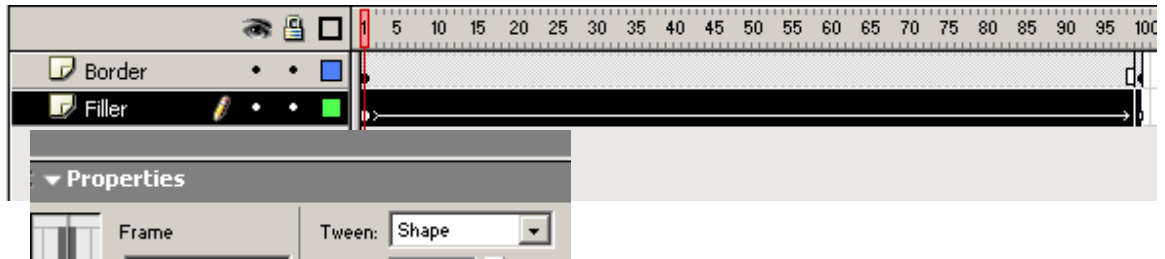


7. Go to Frame 100 on the Filler layer and press the F6 key to create a new keyframe.
8. Expand the rectangle, or delete it and draw a new one, and this time make sure it fills the rectangle completely.

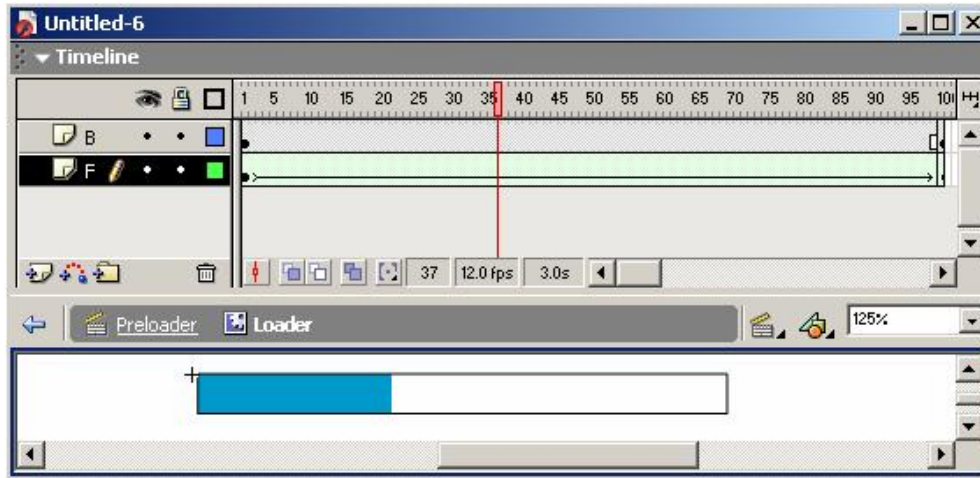


9. Select frames 1 through 100 of the Filler layer and select Shape Tween from the

Properties palette.



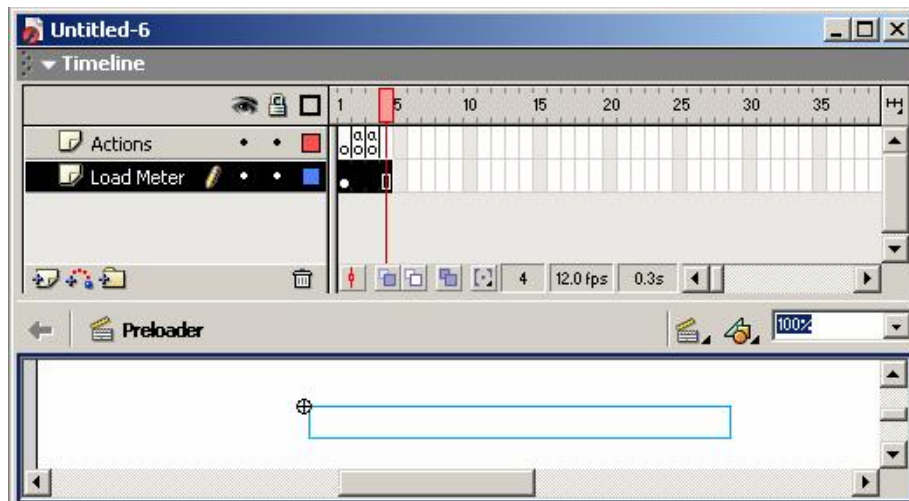
10. You should be able to see your movie tween by dragging the playhead left and right.



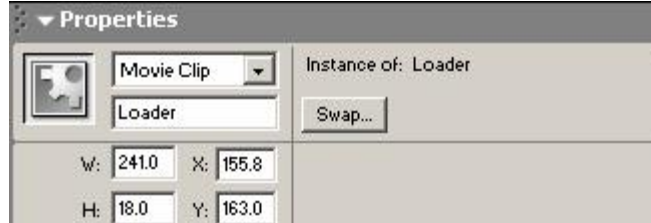
11. Select the Preloader scene again, either from the selector below the timeline or in the Scene window.

12. Create two layers in the Preloader scene timeline.  
a. Create keyframes in the Actions layers at frames 2 and 3

13. Drag the Loader movie clip from the library onto the first frame of the Load Meter layer.  
a. Go to frame 4 and press the F5 key to make the duration of the clip las four frames.



14. Select the newly-placed movie clip on the stage and set its instance name to 'Loader' by entering it into the Properties palette.



15. Now we are ready to do some actual coding. Select Frame 2 in the Actions layer and press F9 to bring up the Actions panel. Enter the following code:

```
var loadedbytes=getBytesLoaded();
var totalbytes=getBytesTotal();

if (loadedbytes == totalbytes) {
    gotoAndPlay('MainMovie',0);
}
else (
    var frame = int(loadedbytes/(totalbytes/100));

    tellTarget (_root.loader) {
        gotoAndStop (_root.frame);
    }
}
```

Here's what this code does:

- First, we declare variables to get and manipulate the loaded bytes and the total bytes. These use some built-in Flash functions to get the values.
- Next, we do some math to convert the variables to Kilobytes
- Then we do an If statement to test to see if the bytes loaded is equal to the total bytes of the movie. If it is, we can go to our main movie scene and play. If it's not, then we need to figure out what percent we are at
- We take the integer value of the loaded bytes divided by the quotient of the total bytes divided by 100.
- Since we were smart and made our preloader exactly 100 frames, this answer can be used to tell the loading bar movie clip what frame we want to show.
- We use a tellTarget function to tell the main timeline to access the loader instance and play the frame we want.
- When looped, you will see the bar increment!

16. Go to Frame 3 of the Actions layer and add the following code:

```
gotoandPlay(2);
```

This will cause our movie to loop, so that the bar can increment.

17. Now, simply create the rest of your movie by selecting the MainMovie scene and going on from there.

That should do it. Provided that everything went smoothly, you should see a progress bar before the movie loads. You'll want to test this over a slow connection to verify that it works correctly before you deploy your movie.