

## PRELOADER- James Drake

<http://www.actionscript.org/tutorials.shtml>

### Step by Step

1. Open Flash and start a new project with dimension of 350 X 350, set the frame rate at whatever you want, I usually use 30 fps.
2. Name the top layer 'Actions' and make two keyframes on frames 1 and 2. Open the 'Actions' window (Window -> Actions) and select frame 1 in layer 'Actions'. Put the following code into the 'Actions' window:  
`stop();`  
Do the same for frame 2.
3. Insert a new layer and name it 'Image', add two keyframes on frames 1 and 2. Import a photo into frame 2, keeping frame 1 empty. This is just to give the preloader some size to work on.

Now for Part II:

1. Insert a new layer and name it 'PreLoader', and add one keyframe to frame 1, don't put anything in frame 2. In frame 1 use the text tool to write 'Loading:'.
2. Select this text box with the arrow tool and open the 'Properties' window (Window -> Properties). Make sure the top-left drop-down box says 'Static Text' and then change any other setting to how you like it.
3. Select this text box with the arrow tool and go to Insert -> Convert to Symbol... Chose 'Behaviour: Movie Clip' and add the name 'PreLoader'. Hit 'OK'.
4. Double-Click on your new 'PreLoader' movie clip. Name the one layer that is already there 'Static Text' and make three new layers, call them 'Actions', 'Percentage Text' and 'LoadBar'.
5. Open the 'Actions' window (Window -> Actions) and select frame 1 in layer 'Actions'. Put the following code into the 'Actions' window:  
`stop();`
6. On frame 1 of the 'Percentage Text' layer use the Text Tool and drag a text box so it is next to the 'Loading:' text box you already have. Open the 'Properties' window (Window -> Properties), and make sure the top-left drop-down box says 'Dynamic Text'. To the right of the 'Properties' window there is a box labeled 'Var:', give it a value of 'percentage'. Next to that box there is a button labelled 'Character..', click it and then make the following settings. Out of the three options choose 'Only', then check the box that says 'Numerals (0-9)'. In the box at the bottom labelled 'And these characters:' input a value of '%'. Hit 'Done'.
7. On frame 1 of the 'LoadBar' layer use the Rectangle Tool and draw a small square below the 'Loading:' text box. Select the arrow tool and position your mouse at the very edge of the square and double click. You should have now selected only the border of the square, not the whole thing. Hit 'Delete' on your keyboard.
8. Select the square and open the 'Info' window (Window -> Info). In the box labelled 'W:' input a value of 1, and in the box labelled 'H:', make it a value of 10. Make sure the values in the 'X:' and 'Y:' boxes end in .0, ie, if you have 34.5 and 23.8, make the values 34 and 24.

9. Select the small rectangle you have now and go to Insert -> Convert to Symbol. Chose 'Behaviour: Movie Clip' and add the name 'LoadBar'. Hit 'OK'.
10. Open the 'Properties' window (Window -> Properties), and give the box that says '<Instance Name>' a value of 'loadBar'.

Now Part III:

1. Exit editing the PreLoader movie clip by double-clicking anywhere on the grey area around the movie, or clicking on the text 'Scene 1', this is just below the list of all the layers in the 'Timeline' window. You should now be back to editing the main timeline.
2. Open the 'Actions' window (Window -> Actions) and select the 'Preloader' movie clip you have made. Put the following code into the 'Actions' window:

```
onClipEvent (enterFrame) {
    loading = _parent.getBytesLoaded();
    total = _parent.getBytesTotal();
    percent -= (percent-((loading/total)*100))*0.25;
    per = int(percent);
    percentage = per+"%";
    loadBar._width = per;
    if (percent>99) {
        _parent.gotoAndStop(2);
    }
}
```

### How does this ActionScript work?

1. **onClipEvent (enterFrame) {**  
This had strange wording for what it actually does. By the look of it it runs each time the movie clip enters a frame, but in fact the effect it actually has it just constantly running the code within it. Just like a loop, but indefinitely.
2. **loading = \_parent.getBytesLoaded();**  
This gets the amount of bytes of the .swf file that have loaded and assigns it to a variable named 'loading'.
3. **total = \_parent.getBytesTotal();**  
This gets the total size of the .swf file and assigns it to a variable named 'total'.
4. **percent -= (percent-((loading/total)\*100))\*0.25;**  
Now, this is where the magic happens. You don't really need to understand the script, but what it effectively does is add a 'lag' to the progress of the loading. For example, when the percent of the .swf file loaded goes from 10% to 30%, the old style of preloader would do the same, the loading bar would jump straight from 10% to 30%. This is what we want to get rid of with our preloader. This line of the script makes the loading bar smoothly move up from 10% to 30%, instead of jumping straight up.
5. **per = int(percent);**  
This takes the percent of the .swf file loaded and changes it to an integer for display in our text box. We don't want our preloader displaying something like 34.8484847449% do we?
6. **percentage = per+"%";**  
Remember the text box we gave a variable of 'percentage'? This line of script writes the percentage loaded to that text box, and adds a 'percent' sign on the end.

7. `loadBar._width = per;`  
Remember the small rectangle we named 'loadBar'? This line of script increases the width to the percent of the .swf file loaded. So, when the percent loaded is 34%, the loading bar will be 34 pixels wide.
8. `if (percent>99) {`  
This says 'if the percent of the .swf file loaded is greater than 99% (ie. 100%) perform the following action'.
9. `_parent.gotoAndStop(2);`  
This is the action for the previous 'if' statement to execute. It moves the main timeline to frame 2, the frame containing your picture.
10. `}`  
Closes the 'if' statement.
11. `}`  
Closes the 'onClipEvent' function.