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## Flash Pre-loaders



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“One of the unique features of web content built with Macromedia Flash is the ability to control when and how the content loads. When loading a heavy HTML page, the user is usually stuck looking at a blank window until the content starts appearing. Flash allows for the creation of animated preloaders, which give the user precise information about the progress of the loading process.

In this tutorial, you will explore how to create a simple preloader.”



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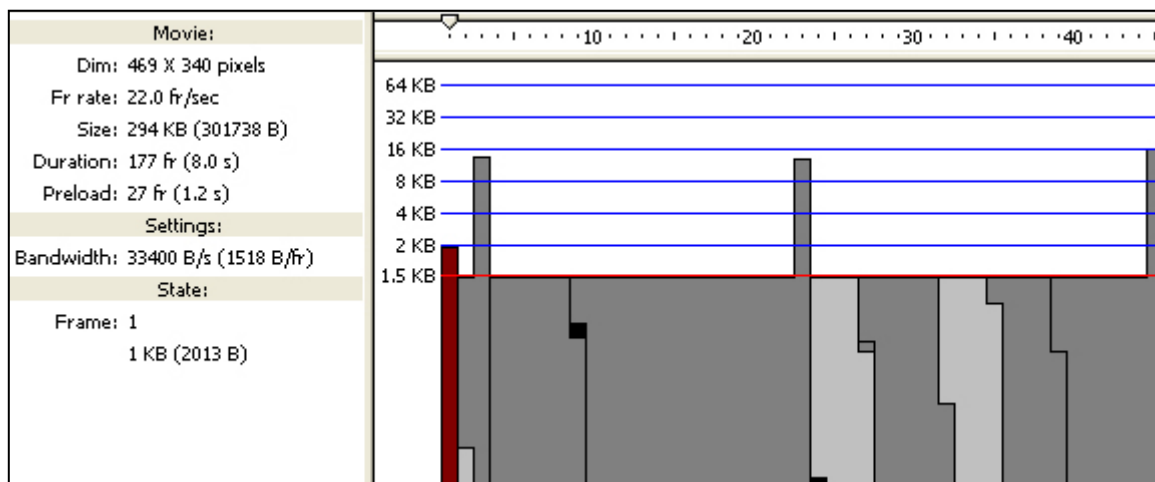
## Before Designing your Preloader...

For a preloader to be truly effective, the animation needs to have a **clear beginning and an end**. There are many types of preloaders and they are quite easily found on the Web. Ranging from the typical rectangular bar moving from left to right to a shape that gradually changes color from red to green as the file loads, the user won't know that they are waiting for green or how far from red they have come. Anyone should be able to know what the load status is at any point in the preloader's progress animation.

## File Size

Flash Player will not display the contents of a frame until **everything** on that frame is completely loaded. If there is a movie clip on a frame of the main Timeline, the frame will not display until that entire clip, and every other clip on that frame, has loaded. This is very important to keep in mind when creating your preloader and placing it in your file.

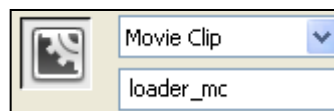
It is also important to keep the byte size of your preloader **as low as possible**. Otherwise, the user will be looking at a blank screen before the preloader loads. When testing the movie in Flash, use the **Bandwidth Profiler** to check the byte size of each frame of the main Timeline to make sure that the frame where the preloading will occur is light.



*Bandwidth Profiler*

## Creating the loader movieclip

1. Create a simple rectangle shape in Flash and convert that to a Movieclip (F8). Give it an instance name **loader\_mc**.



2. If you want, you can display the percent to download by using Text Tool to create a **Dynamic Text** and name the instance name as **txtPercent**.

## Creating Codes

- 3) Create a new layer and call it Actions layer and press **F9** to go to Actions Panel.
- 4) Type in the codes as shown below :

```

1 // this block is to check if show is ready
2 if(this._framesloaded==this._totalframes){
3   gotoAndPlay("mainShow",1);
4 }else{
5   loader_mc._xscale=(this._framesloaded/this._totalframes)*100;
6   txtPercent.text = Math.round((this._framesloaded/this._totalframes)*100)+"% downloaded";
7 }

```

Consider this :

```

1 // this block is to check if show is ready
2 if(this._framesloaded==this._totalframes){
3   gotoAndPlay("mainShow",1);
4 }else{
5   loader_mc._xscale=(this._framesloaded/this._totalframes)*100;

```

- 5) Explanation :

We use a **if** selection to determine the **number of frames that are loaded** from a streaming SWF file (denoted by **\_framesloaded**) with the **total number of frames** in the movie clip instance (denoted by **\_totalframes**). If they are the same, that means the whole movieclip is downloaded and it will go to another scene (**mainShow**) and play at frame 1. Scene are just like multiple stage in Flash and later I shall show you how to create another scene.

If it is still in the process of downloading, then the movieclip which you have just created (**loader\_mc**) will scale horizontally (**\_xscale**) according to the downloaded percentage. Say your framesloaded is 30 frames out of a total of 100 frames. You convert that to about 30%. It will then scale to 30% of the actual size of the horizontal bar.

```

6   txtPercent.text = Math.round((this._framesloaded/this._totalframes)*100)+"% downloaded";
7 }

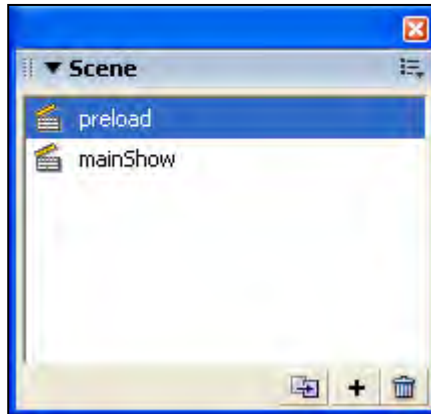
```

- 6) The next line just use the same percentage formula but is inserted within a **round** method of a Math class. Very useful method for rounding off numbers (like 23.56 ~ 24). The text string will be displayed (**% downloaded**) if you join the value using a (+) sign. You will assign the value to the Dynamic TextBox which you have created (**txtPercent**).

## Creating additional Scenes

As explained earlier on, we need to create additional scenes to cater to multiple stages.

- 7) Choose **Window > Other Panels > Scene**.
- 8) Click + to add scene and name it as **mainShow** by double-clicking on the 2nd scene name.



- 9) Do the main content within the mainShow scene.

## Testing

The **Simulate Download** feature available when testing in the Flash authoring tool is very useful when testing a preloader. You can find this on the View menu when testing a movie. It is a good idea to try Simulate Download at different bandwidth settings, so you can get an idea of how the preloader looks on different types of connections. Use the **Bandwidth Profiler** to ensure that your preloader clip is small enough, and to compare the actual load progress with the progress reported by your preloader.