

## Flash SWFs Slide Show

I have a set of “Car Driving” Animations that my students made, and I have been wondering for quite a while how to make them into an automated slideshow.

Is there an answer out there on the web somewhere, about how to make a group of Flash SWF files play one after each other in a Flash CS3 animation ?

The goods news is that there is an excellent answer to this very question at the “Flash and Math” website, in their “External Clips in Flash CS3” tutorial.

This tutorial goes through step-by-step, how to create a FLA project that uses Action Script 3.0 code that runs several SWF files one after each other.

The resulting SWF can then be embedded into a web page, and we effectively have a slideshow of our SWF files. However, we need to have SWF files that play in a continuous loop, and do not themselves contain any Actionscript.

The tutorial is in two parts, at these Web addresses:

[http://www.flashandmath.com/intermediate/externalclips/ext\\_clip1.html](http://www.flashandmath.com/intermediate/externalclips/ext_clip1.html)

[http://www.flashandmath.com/intermediate/externalclips/ext\\_clip2.html](http://www.flashandmath.com/intermediate/externalclips/ext_clip2.html)

*(There are also some further Parts 3 and 4 tutorials, but these are on how to control FLV video files using Actionscript, and not about SWF files.)*

The Parts 1 and 2 web pages also have downloadable finished “FLA” files. So if you just need to animate some SWF files, (and don’t have time to learn the Actionscript code), then download their finished FLA file, and rename your SWF files to clip0.swf, clip1.swf, and clip2.swf. Then make sure these files are located in the same directory as the FLA file.

The “Car Driving” animations that the students made, were developed by following an excellent set of instructions by Denise Etheridge, located at: [http://www.baycongroup.com/flash/01\\_flash\\_5\\_tutorial.htm](http://www.baycongroup.com/flash/01_flash_5_tutorial.htm)

Denise’s Tutorial is in Flash 8, but it works ok in Flash CS3, as long as the students start it as an ActionScript 2.0 project.

When we started building the Slide Show project in Flash, not all of the student SWF files would play. Several of them obtained the error:

```
TypeError: Error #1034: Type Coercion failed: cannot convert  
flash.display::AVM1Movie@3039701 to flash.display.MovieClip.
```

Sadly, it seems that not all SWF’s can be converted into Movie Clips at runtime. If we cannot make a movie clip, then we cannot access the load and unload features that we need to make the clips play one after each other.

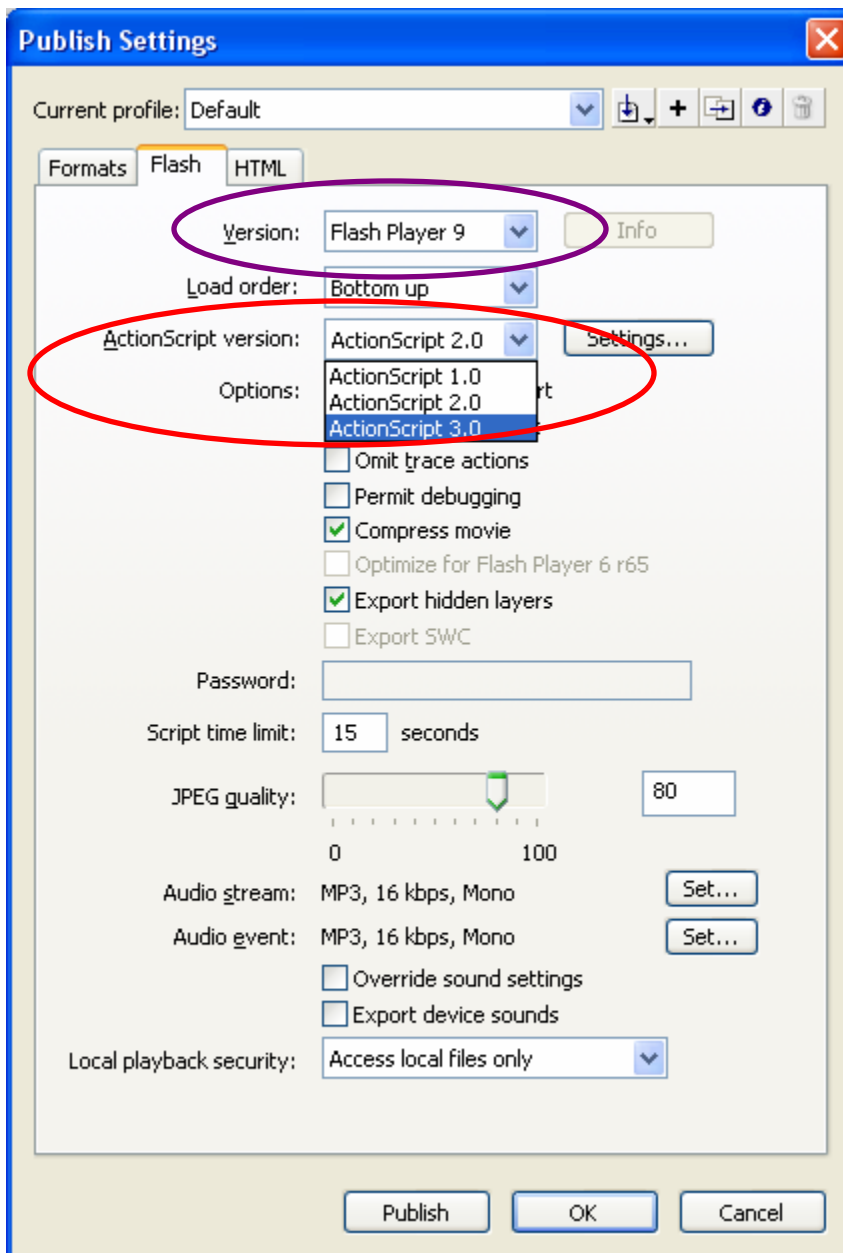
## Flash SWFs Slide Show

The car project files that seemed to fail Movie Clip conversion were ones that did not have the simple setup (as per the car tutorial instructions) of :

- single graphic symbol for each item in the library,
- separate layers for each of these graphic symbols,
- a simple motion tween on the car
- **and were Actionscript 2.0 and not Action Script 3.0.**

However, many of the animations were subsequently made to work ok, by changing the AS 2.0 files the students had made, to be AS 3.0 format files.

This was done by doing **File > Publish Settings** and **Click the Flash Tab**, and change the “ActionScript version” box from AS 2.0 to AS 3.0, as shown below:



# Flash SWFs Slide Show

The Flash FLA we make to run the Slideshow is entirely ActionScript code, contained in a single layer. (Eg. Rename Layer 1 to indicate that we have script in it. Then press F9 to create, view and edit the script).

The following script code can be cut and pasted into Layer 1, frame 1, by pressing F9 while in a new Flash CS3 Actionscript 3.0 document :

```
/*
This code comes from www.flashandmath.com and will play a set
of SWF files (contained in the "clips" array), one after each
other like a slideshow.

The SWF files must be :
1) An ActionScript 3.0 format file
2) In the same directory as this FLA file
3) The same width x height size as this FLA file, or vice versa.

Note that AS 2.0 files can be changed to AS 3.0 by doing File > Publish
Settings, and changing them from 2.0 to 3.0 and then doing "Publish".

Only simple SWF files that are AS 3.0 will work ok,
Action Script 2.0 (AS 2.0) files all fail, as well as
some more complicated SWFs fail movie clip conversion and
"crash" with error message:

TypeError: Error #1034: Type Coercion failed:
cannot convert flash.display::AVM1Movie@3039701 to
flash.display.MovieClip.
*/

// Array containing the set of external clips to use.
// Variable index refers to next clip to be displayed.

var clips:Array = ["carclip1.swf", "carclip2.swf", "carclip3.swf"];
var index:int = 0;

// Stuff for loading files

var thisLoader:Loader = new Loader();
thisLoader.contentLoaderInfo.addEventListener(Event.INIT, doneLoading);

var thisMC:MovieClip = new MovieClip();
stage.addChild(thisMC); // Add empty MC initially so the nextClip
function
//                               works even on first call

// Gets the next MC, waiting for INITialization
// before adding it to the stage

function nextClip():void {
    thisLoader.load( new URLRequest(clips[index]) );
}
}
```

## Flash SWFs Slide Show

```
// Remove old clip, tell AS that the loaded file is the new one,  
// add it to the stage, and play.  
  
function doneLoading(e:Event):void {  
    stage.removeChild(thisMC);  
    thisMC = MovieClip(thisLoader.content);  
    thisLoader.unload();  
    thisMC.addEventListener(Event.ENTER_FRAME, runOnce);  
    stage.addChild(thisMC);  
    thisMC.gotoAndPlay(1);  
}  
  
// When currentFrame equals totalFrames in loaded clip (playing),  
// then we know we are at the end of this Movie Clip so we  
// increment index & play the next clip.  
  
function runOnce(e:Event):void {  
    if (thisMC.currentFrame == thisMC.totalFrames) {  
        thisMC.removeEventListener(Event.ENTER_FRAME, runOnce);  
        index = (index + 1)%(clips.length);  
        nextClip();  
    }  
}  
  
// Call nextClip to automatically start the first clip  
  
nextClip();
```

*Hopefully this will be very useful for people who need to group and play SWF files in Flash.*

## Executing the Slide Show on the Internet

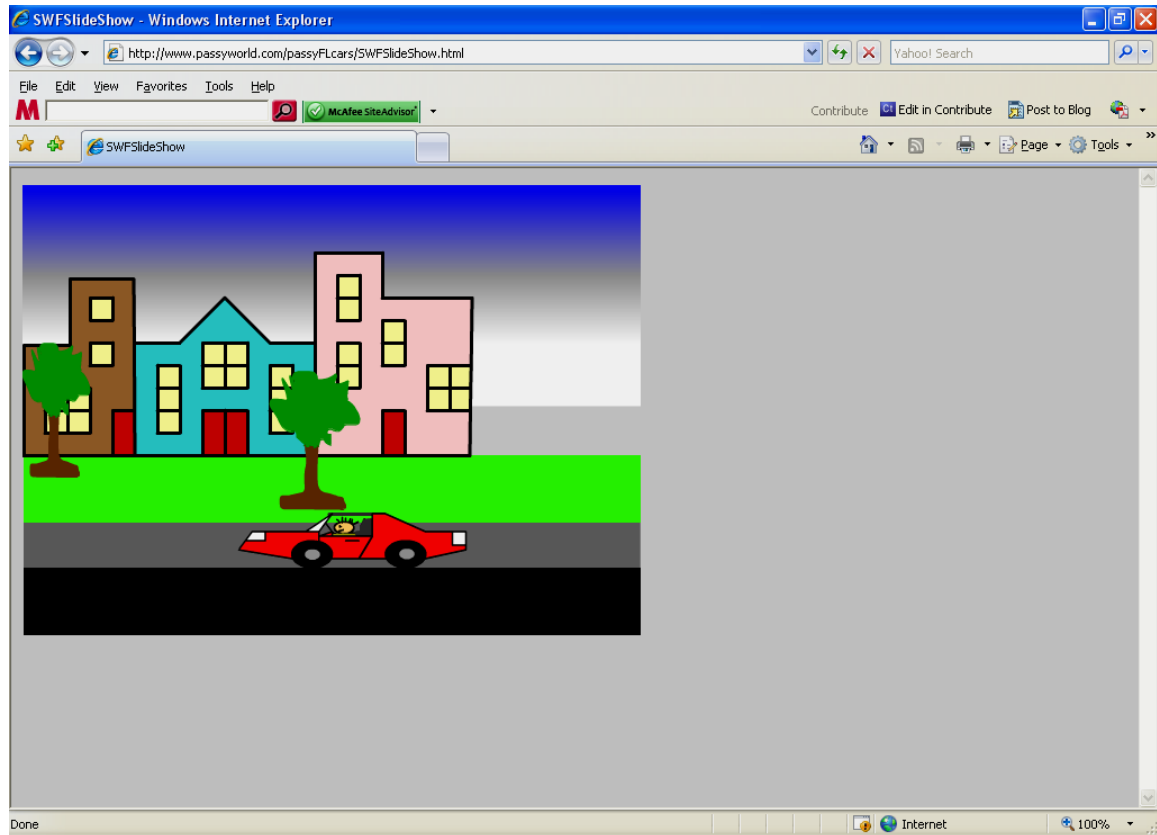
To get the above ActionScript to execute on a remote website server, and then embed the Slide Show into a Blog Post on the Web takes three main steps.

- 1) In Flash, (with the FLA file open), do **File > Publish Settings** (make sure Html is ticked) and then click **Publish**. In the same folder as the FLA file, Some Html will be created, as a "AC\_RunActiveContent.js" javascript file.
- 2) We need to have a personal website where we can load up all of the SWF files, as well as the Javascript File, and the HTML page. Make a new folder on this website, and put all of the components into it.

Paste the address of the webpage into an internet browser, (eg. For my slideshow it is <http://www.passyworld.com/passyFLcars/SWFSlideShow.html>)

## Flash SWFs Slide Show

and the slideshow should play in the top left hand corner of a blank webpage like this:



3) Finally, to embed this slideshow into a blog page, so that it will play automatically, we need to use a web page “window” called an “iframe”.

Eg. The following Html code, added at the top of our blog page gives a “box”, and inside that box runs our flash slide show from the external website:

```
<div style="text-align: left;"><iframe marginwidth="0" marginheight="0"
src="http://www.passyworld.com/passyFLcars/SWFSlideShow.html"
scrolling="no" width="550" frameborder="0" height="400"></iframe>
</div>
```

To see our Flash Cars slideshow AS 3.0 Javascript web page running in an iframe on a blog, go to this link:

<http://passyworldofict.blogspot.com/2009/06/flash-swfs-slide-show-in-as-30.html>

Note that “normal” embed Html including a flash player does not work, when we try to embed the Slideshow. This is because the Html has to run the Javascript,

## Flash SWFs Slide Show

and so the easiest and best way to get the Html is to let Flash generate it for us, by using **File > Publish Settings > Publish** .

Eg. Html like this will not produce anything for us:

```
<embed pluginspage=" http://www.macromedia.com/go/getflashplayer"
src="http://www.passyworld.com/passyFLcars/SWFSlideShow.swf"
width="400" height="300" type="application/x-shockwave-flash"></embed>
```

Instead, we have to use the following Flash generated by “Publishing” Html to build a web page that the animation plays on:

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"
/>
<title>SWFSlideShow</title>
<script language="javascript">AC_FL_RunContent = 0;</script>
<script src="AC_RunActiveContent.js" language="javascript"></script>
</head>
<body bgcolor="#cccccc">
<!--url's used in the movie-->
<!--text used in the movie-->
<!-- saved from url=(0013)about:internet -->
<script language="javascript">
    if (AC_FL_RunContent == 0) {
        alert("This page requires AC_RunActiveContent.js.");
    } else {
        AC_FL_RunContent(
            'codebase',
            'http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=9,0,0,0',
            'width', '550',
            'height', '400',
            'src', 'SWFSlideShow',
            'quality', 'high',
            'pluginspage',
            'http://www.macromedia.com/go/getflashplayer',
            'align', 'middle',
            'play', 'true',
            'loop', 'true',
            'scale', 'showall',
            'wmode', 'window',
            'devicefont', 'false',
            'id', 'SWFSlideShow',
            'bgcolor', '#cccccc',
            'name', 'SWFSlideShow',
            'menu', 'true',
            'allowFullScreen', 'false',
            'allowScriptAccess', 'sameDomain',
            'movie', 'SWFSlideShow',
            'salign', ''
        ); //end AC code
    }
</script>
```

## Flash SWFs Slide Show

```
<noscript>
  <object classid="clsid:d27cdb6e-ae6d-11cf-96b8-444553540000"
  codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swfla
  sh.cab#version=9,0,0,0" width="550" height="400" id="SWFSlideShow"
  align="middle">
    <param name="allowScriptAccess" value="sameDomain" />
    <param name="allowFullScreen" value="false" />
    <param name="movie" value="SWFSlideShow.swf" /><param
  name="quality" value="high" /><param name="bgcolor" value="#cccccc" />
    <embed src="SWFSlideShow.swf" quality="high" bgcolor="#cccccc"
  width="550" height="400" name="SWFSlideShow" align="middle"
  allowScriptAccess="sameDomain" allowFullScreen="false"
  type="application/x-shockwave-flash"
  pluginspage="http://www.macromedia.com/go/getflashplayer" />
  </object>
</noscript>
</body>
</html>
```

Don't try and write the above Html yourself, use Flash's Publishing function to generate it all for you. ☺

Finally, here are a couple of alternative ways to get a set of SWF files into an automated slideshow for display purposes.

### Alternative 1: Making a Screen Recording of the Slide Show

We went to [www.cnet.com](http://www.cnet.com) and downloaded and installed the latest version of "Cam Studio". This software allowed us to record our PC screen while the Slide Show is playing, and then output this recording as an SWF movie file.

There is a How To Use Cam Studio presentation at:

<http://www.slideshare.net/barrymacd/cam-studio-introduction>

and the Cam Studio website is at: <http://camstudio.org/>

We used Cam Studio to record the Slide Show, but we lost most of the quality out of the Gradients that were in the Flash movies. We did however manage to make a 3.5 megabyte SWF screen capture file of the Slide Show.

Placing the 3.5 megabyte Cam Studio file on a webpage resulted in a 30 second load time, and then low quality images with line ghosting of the moving cars, and horrible looking banded gradients. This is not Cam Studio's fault, as it is not specifically designed to reproduce Flash's spectacular visual effects.

*We therefore decided not to use the Cam Studio SWF movie on the blog page.*

## Flash SWFs Slide Show

### Alternative 2 - Using PowerPoint 2007 for an SWF Slide Show:

Something we might try another time, is to see how we go embedding the separate Flash SWF files on PowerPoint 2007 slides. We could then perhaps make the PowerPoint play on a web page. There is a web page on how to do this at: <http://www.labnol.org/software/tutorials/embed-swf-insert-flash-in-powerpoint-presentations/3721/>



Finally, realize that we don't have to make the slideshow play on a web page, or embed it in a blog, we can simply just play the SWF file locally on a PC or Laptop. Just make sure that the slide show SWF file, and all of its component SWF movies are all in the one folder.

Enjoy, Passy  
June 2009