



Creating Desktop Recordings with Camtasia Studio 2

By: [Paul Newman](#)

If you've spent some time on CommunityMX.com, you probably already know that we offer [video tutorials](#) (<http://www.communitymx.com/search.cfm?searchbox=camtasia>). Recently, the kind folks at [TechSmith](#) (<http://www.techsmith.com/>) sent us a few copies of the latest version of their desktop recording software, [Camtasia Studio 2](#) (<http://www.techsmith.com/products/studio/>). As someone who used Camtasia Studio 1.1, I can tell you that Camtasia Studio 2 is much easier and more intuitive to use than its predecessor. In addition, it's nearly half the price of Macromedia's desktop recording solution, [RoboDemo](#) (<http://www.macromedia.com/go/robodemo/>).

NOTE: At the time of this writing, Camtasia Studio 2 requires Windows 2000 or Windows XP, and is not available for the Mac platform. If you want to create desktop recordings on Windows 98, ME or NT, you'll need to use [Camtasia Studio 1.1](#) (<http://www.techsmith.com/download/studio98meNTsupport.asp>).

In this tutorial, you'll learn how to record screen actions with Camtasia Studio 2, assemble the elements of your project, and publish the completed video to Flash SWF format.

Camtasia Workflow

The basic workflow in Camtasia is this:

1. [Record your screen actions with Camtasia Recorder](#)
(<http://www.communitymx.com/content/article.cfm?page=2&cid=26782#record>)
2. [Edit your project in Camtasia Studio](#)
(<http://www.communitymx.com/content/article.cfm?page=3&cid=26782#project>)
3. [Produce the video in Flash SWF format](#)
(<http://www.communitymx.com/content/article.cfm?page=3&cid=26782#produce>)

The best way to get started is to watch TechSmith's [Using Camtasia Studio 2](#) (http://www.techsmith.com/videos/studio/Tutorials/using_camtasia_studio_2.html) videos. You can also download the [Getting Started Guide](#) (<http://www.techsmith.com/products/studio/documentation.asp>) in PDF format ([direct download](#) (<http://www.techsmith.com/transfer.asp?filename=studio.pdf>)). The [trial version](#) (<http://www.techsmith.com/download/studiofreetriall.asp>) is fully functional for 30 days.

Setting Up Your Microphone

To record narration, I recommend using a combination [headset/boom microphone](http://www.labtec.com/index.cfm?page=gear/listing&crd=8&crd2=9&countryid=1001&languageid=1) (<http://www.labtec.com/index.cfm?page=gear/listing&crd=8&crd2=9&countryid=1001&languageid=1>). Make sure that **Mute** is unchecked under Microphone in Volume Control (see Figure 1). Also, turn down the volume on your desktop speakers to avoid feedback. (To open Volume Control, double-click the Volume icon in the system tray.)

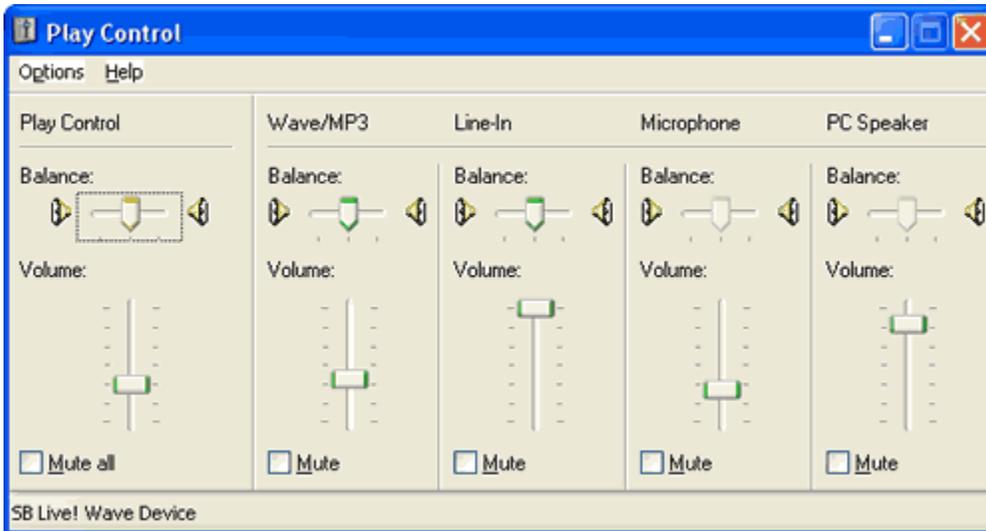


Figure 1 Make sure to uncheck Mute under Microphone

At this point, you should be able to hear yourself speaking in the headset.

The Three R's: Write, Rehearse, Record

When I first started using Camtasia Studio, I recorded screen actions without audio and added the narration later. I've since learned that it's easier, and faster, to record video and audio at the same time.

- **Write** — For long presentations, TechSmith recommends writing a script that you can read back as you record your video. However, in most cases, the best approach is to divide your presentation into several shorter videos. Jot down some notes so you'll remember the key actions you want your recording to include, and keep them nearby so you can refer to them as you make the recording (or tape them to your monitor).
- **Rehearse** — Before recording, it's a good idea to rehearse the screen actions you want to capture. For instance, you may use **Ctrl+N** to open new documents in Dreamweaver, but the viewer will find the video easier to follow if you select **File > New**. TechSmith recommends pausing briefly before you click menus and buttons so the viewer doesn't miss important steps. This is also a good time to make sure that all the actions you want to capture fit within the screen dimensions you've defined (e.g., 800x600).
- **Record** — Think of your recordings as movie takes. If you're well prepared, you should be able to complete your video in 3-5 takes. The key is making the recordings back-to-back, without breaks, so you can remember what you did in previous takes and make any necessary corrections. If you flub a line, don't stop. Instead, collect your thoughts, *don't move your cursor*, and resume the recording by repeating the flubbed line. (Alternatively, you can press **F11** to pause/resume the recording, but I just let it keep rolling.) Later, you can easily select the mistake in the project Timeline, and click **Cut Selection** to remove it.

Use a friendly, conversational tone, and don't be discouraged if your video isn't perfect. If you make a mistake, acknowledge it and move on (i.e., don't be a robot).

Recording Screen Actions with Camtasia Recorder

Complete the following steps to launch and configure Camtasia Recorder:

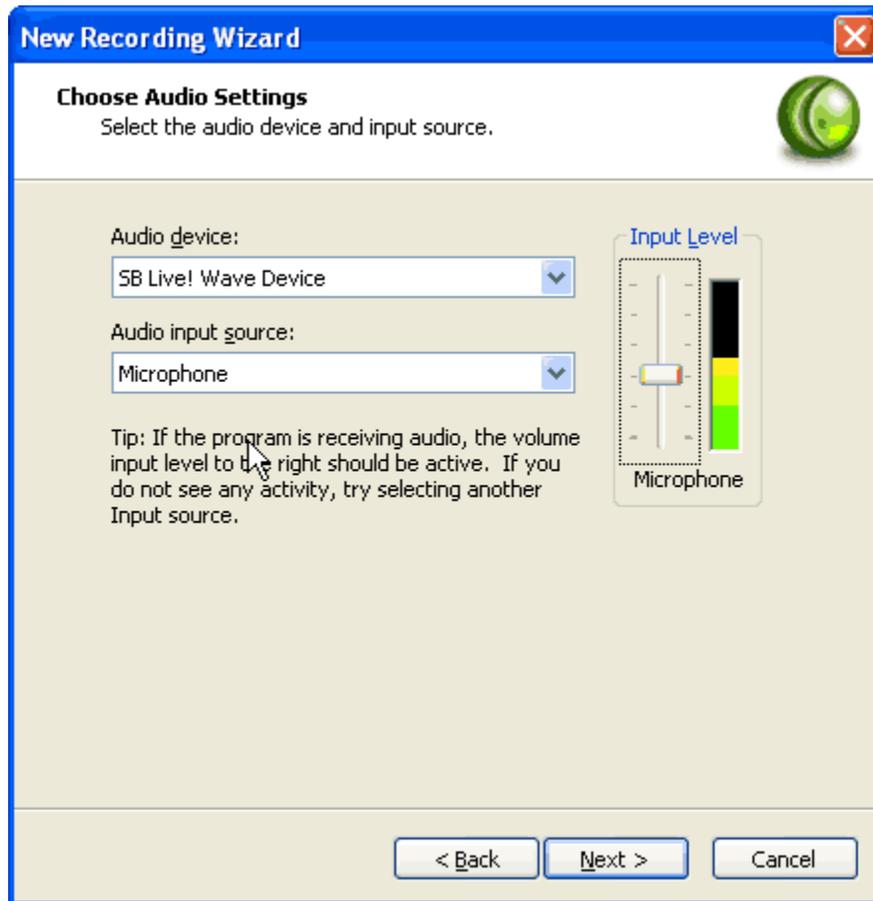
1. Choose **Start > Programs > Camtasia Studio 2 > Camtasia Studio**. This opens the Welcome dialog box:



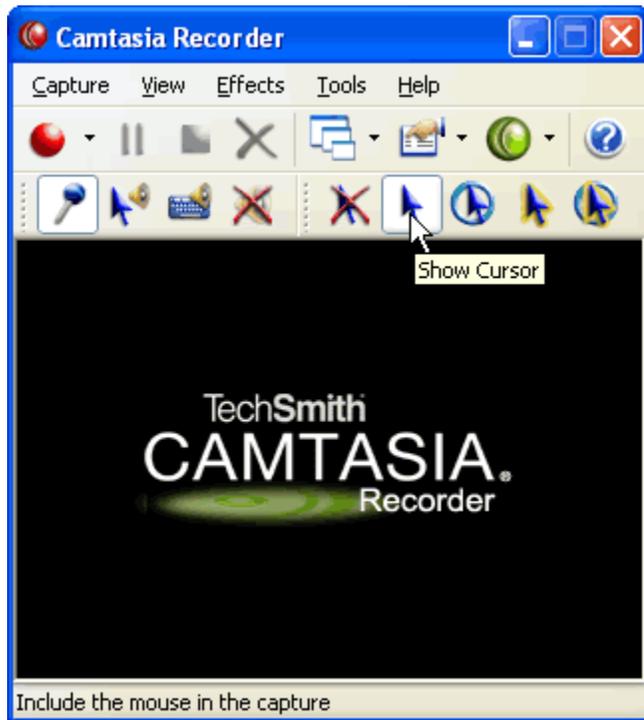
2. Select **Start a new project by recording the screen** and click **OK**. This launches the New Recording Wizard.
3. Select **Region of the screen** and **Record Audio**. Click **Next**.

NOTE: Once you're familiar with Camtasia Studio, you can click **Cancel** when the New Recording Wizard appears to go straight to Camtasia Recorder.

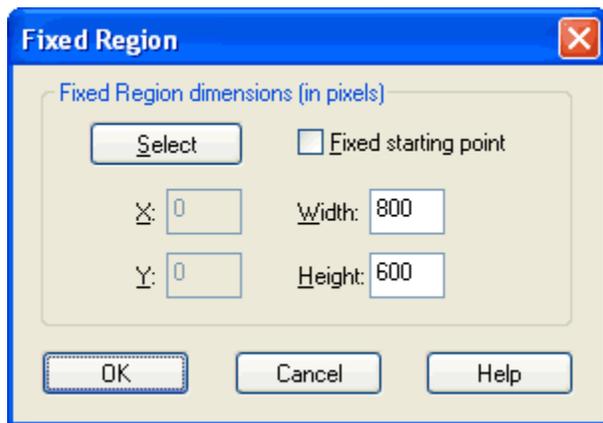
4. On the following screen, accept the defaults and click **Next** (we're going to define the capture region later).
5. Speak into your microphone and adjust the input level accordingly. Click **Next**.



6. On the next screen, check **Disable display acceleration during capture** to create a smoother recording (this makes the screen go blank temporarily before and after each recording). Under Post-Recording Options, accept the default (**After save, play the video**).
7. Click **Finish**. This launches Camtasia Recorder. (To return to the New Recording Wizard, choose **Capture > Wizard** in Camtasia Recorder.)
8. Before we start recording, let's tweak some additional settings. Select the **View** menu and check the **Audio** and **Cursor** toolbars.
9. Make sure **Record Audio** and **Show Cursor** are selected.



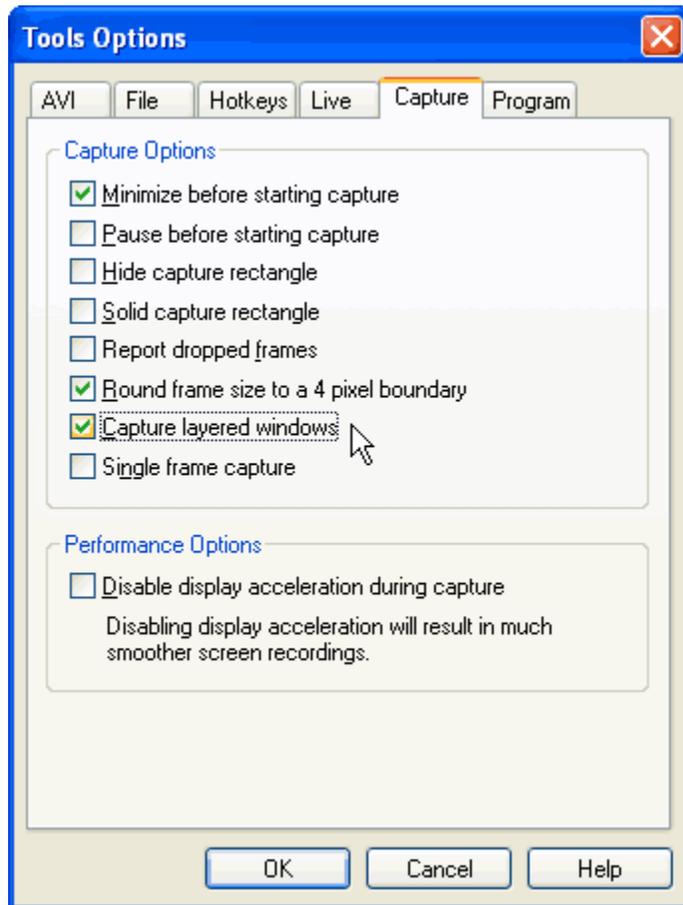
- To define the capture region, select **Capture > Input > Fixed Region**. Enter the recording dimensions in the Width and Height text boxes and uncheck **Fixed starting point**.



This enables you to select the starting point before the recording begins (for some reason, this option is left out of the New Recording Wizard). Click **OK** to close the Fixed Region dialog box.

NOTE: When I first started using Camtasia Studio, I enabled AutoPan and recorded the screen at 400x300. However, this results in much larger file sizes because Camtasia has to keep redrawing the entire screen. If you're working with applications such as Dreamweaver and Flash, I recommend recording the screen at 800x600 and opening the completed video in a pop-up window. You can use a utility such as [Screen Ruler \(http://www.microfox.com/\)](http://www.microfox.com/) to adjust the size of the application before recording.

- Choose **Tools > Options** and select the **Capture** tab. To capture tooltips in an application, check **Capture layered windows** and click **OK**.



- At this point, you're ready to start recording. Click the red **Record** button on Camtasia Recorder, or press **F11**.

TIP: For a clean recording, minimize all windows except the application you want to capture, and select a solid background color for your desktop. I chose the Default (blue) Windows XP color scheme (RGB: **0, 78, 152**). If you're using Windows XP, you can hide your desktop icons by right-clicking the desktop and unchecking **Arrange Icons By > Show Desktop Icons**

- If you unchecked **Fixed starting point** in Step 10, position the frame to define the capture region and click the screen to start recording. (Press **Esc** to cancel.) When the frame starts to flash, the recording has begun. You can reposition the capture region by dragging one of the flashing green corners. To pause the recording, press **F11**.
- When you're finished, press **F10** to stop the recording. Camtasia Recorder prompts you for a filename and location to save the AVI file.

At this point, the recording plays back in Camtasia Player. This AVI file will be the basis for your project.

Editing Your Project in Camtasia Studio

To create a new project, launch Camtasia Studio (if it's not already open) and complete the following steps:

- Click **Import video** in the Task List and select the AVI file you just recorded.
- Click the Save Project button on the toolbar (or press **Ctrl+S**).

3. Enter a name for the project in the Save As dialog box and click **Save**. Camtasia Studio automatically appends the .camproj file extension.
4. Drag the video from the Clip Bin and drop it onto the Timeline. A video preview appears on the right. You can use the playback controls (Play, Stop, etc.) to view the video you just created. For more precise control, use the seek bar in the Timeline or the "scrubber" bar in the video preview area (see Figure 6).

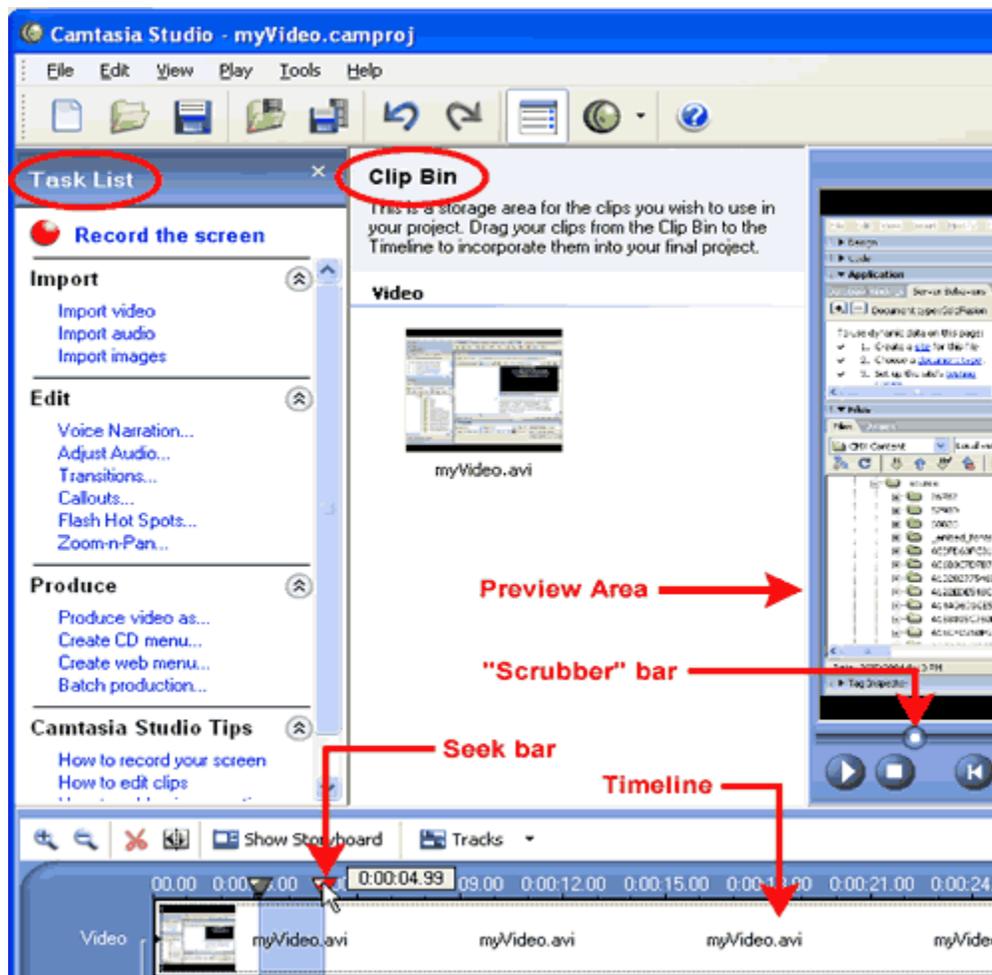


Figure 6 Use the seek bar in the Timeline or the "scrubber" bar in the preview area

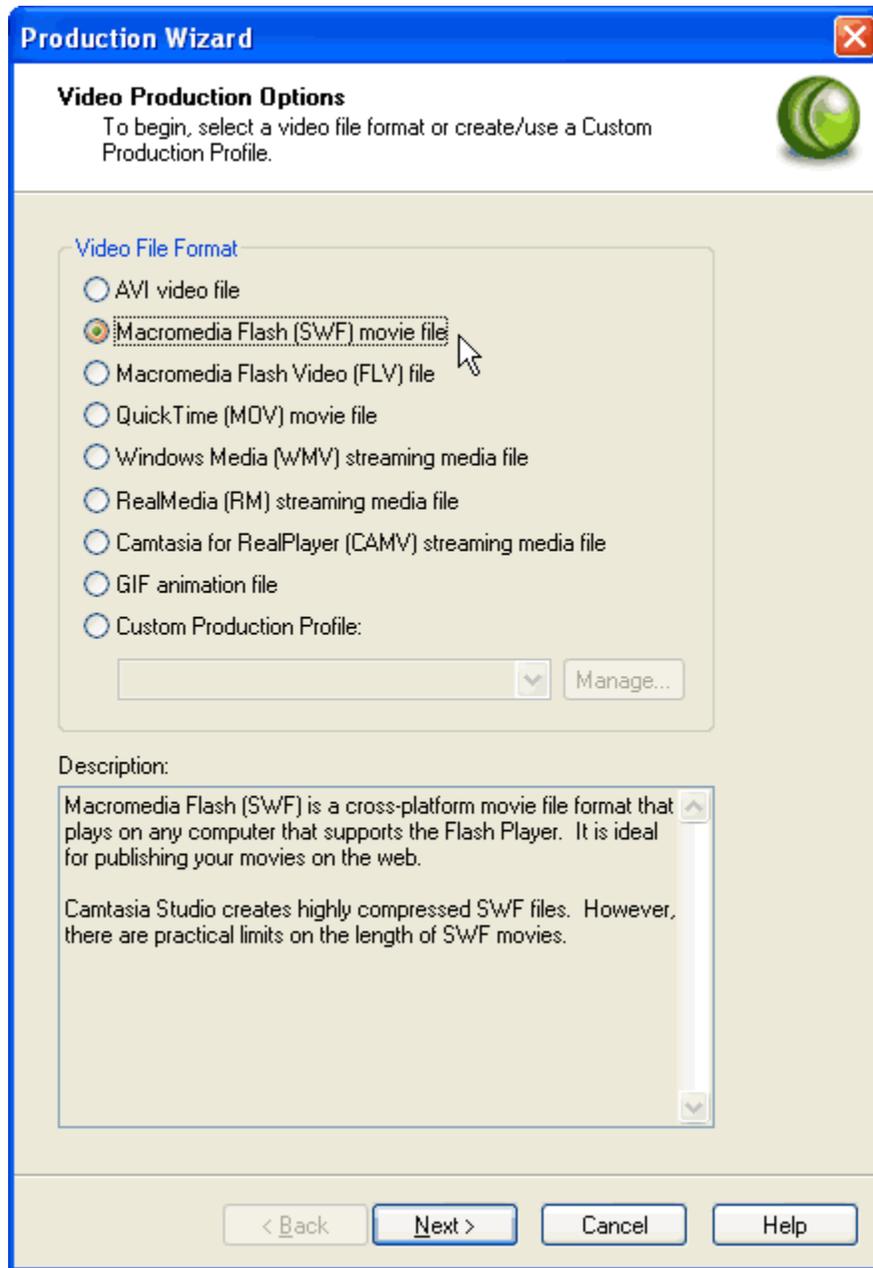
5. Make any necessary edits by selecting a portion of the video track and clicking **Cut Selection** (the scissors icon in Figure 6). Camtasia Studio uses non-destructive editing, which means that any changes you make to the video do not affect the original AVI file. When you reopen the project, the edits you made are preserved and will be rendered when you produce the final video.
6. To create a title card for the video, create an image with your recording's dimensions in Fireworks or another image editor. Save the image — Camtasia recognizes BMP, GIF, JPG, and PNG files — to the directory that contains your other Camtasia project files.
7. Back in Camtasia Studio, click **Import images** in the Task List and select the image you just created.
8. Drag the image from the Clip Bin and *drop it onto your AVI file* in the Timeline. This inserts the image before your video. By default, the image's duration is 5 seconds. To change the title card's duration — three seconds ought to be enough — position your cursor between the image and AVI files until it changes to a double-sided arrow, then drag to change the clip's duration. As you drag, the time updates in the bottom right of the video preview area.
9. Save your work.

To reopen your project, you can double-click the .camproj file in Windows Explorer, or choose **File > Recent Projects > yourProject.camproj** in Camtasia Studio.

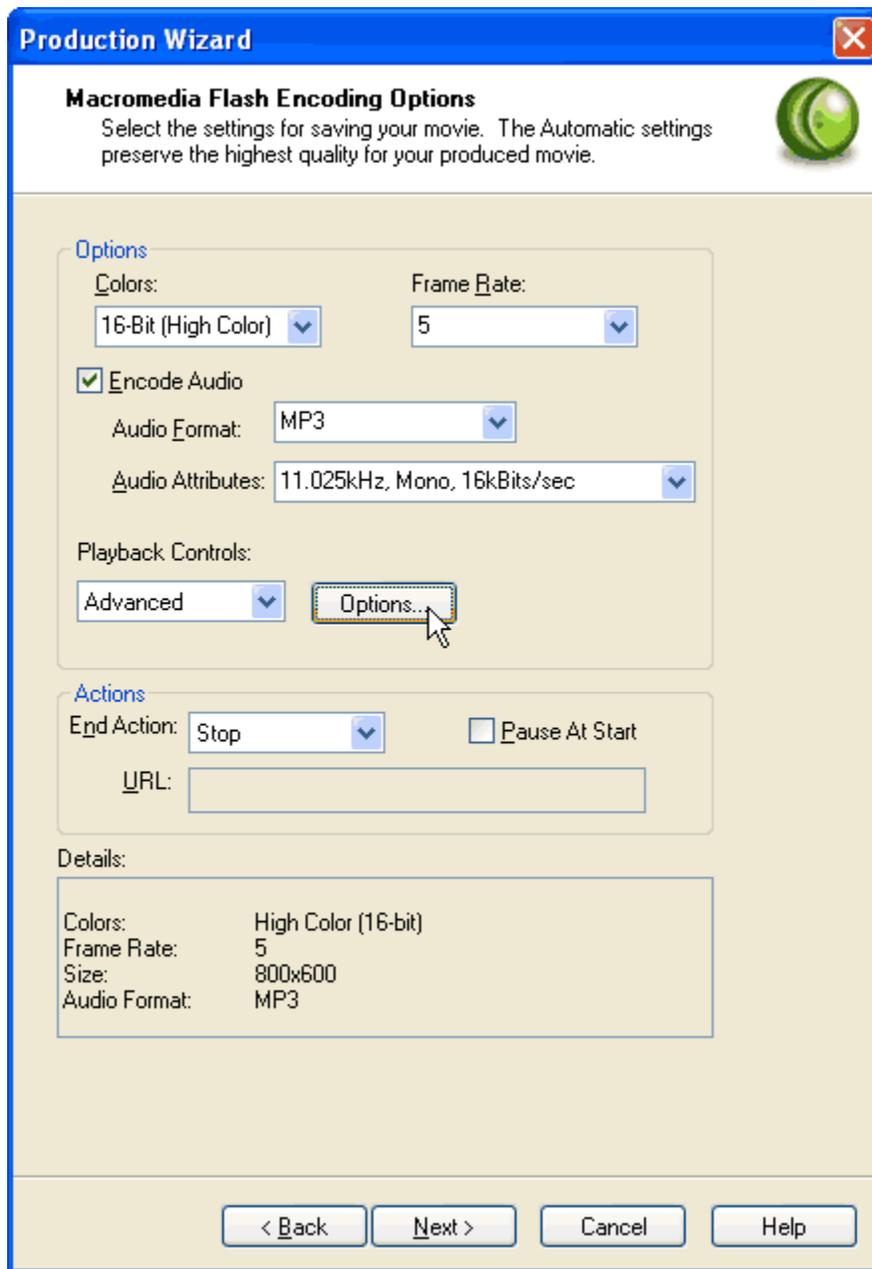
Producing the Video in SWF Format

The last step is launching the Production Wizard so you can publish your video as an optimized Flash SWF file:

1. Click **Produce video as** in the Task List (see Figure 6), or choose **File > Produce Video As**. This opens the Production Wizard dialog box.
2. Select **Macromedia Flash (SWF) movie file** and click **Next**.



3. On the Flash Encoding screen, change Colors to **16-Bit (High Color)** and Frame Rate to **5**. If you want your presentation to start playing back immediately, make sure **Pause At Start** is unchecked.



NOTE: I reduced a 5-minute video from 9MB to 4MB by changing 32-bit color to 16-bit color, and from 4MB to 3MB by changing Frame Rate from 15 to 5 frames per second. For the MP3 audio, I selected 16kBits/sec, the lowest tolerable setting. If your project includes music or effects, you may need to increase the audio quality. Obviously, these optimizations are only necessary for streaming web delivery. If you're creating a CD-ROM, go crazy.

4. Click **Options** next to Playback Controls. This opens the following dialog box:

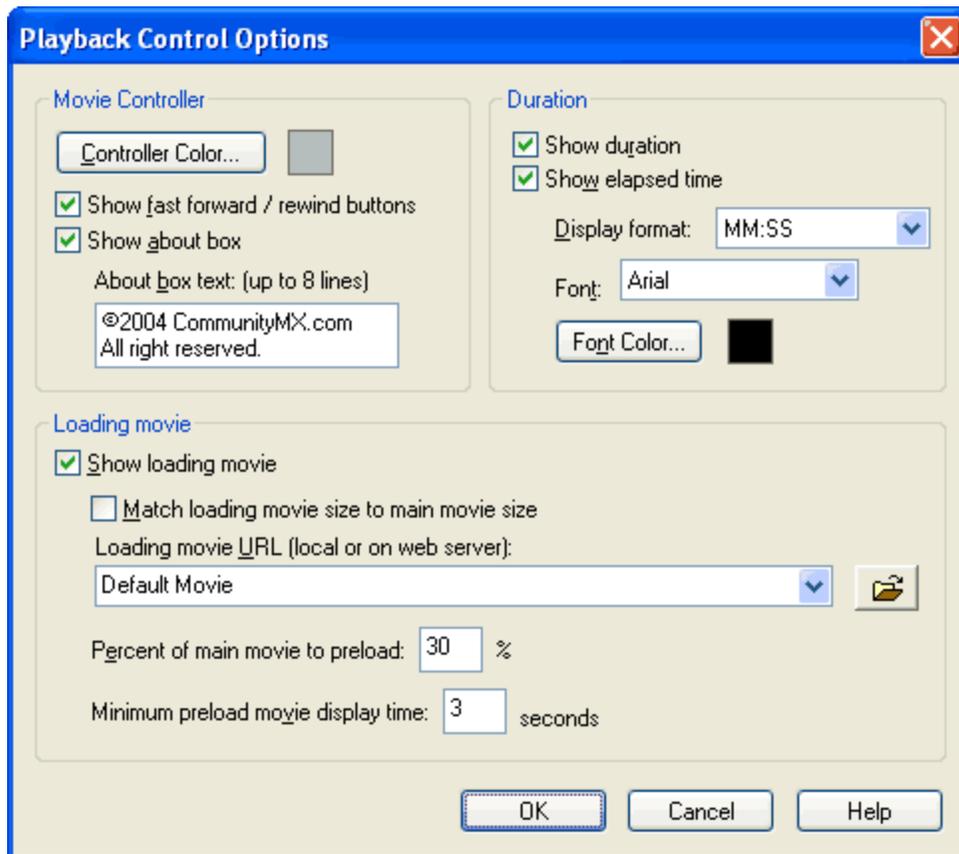
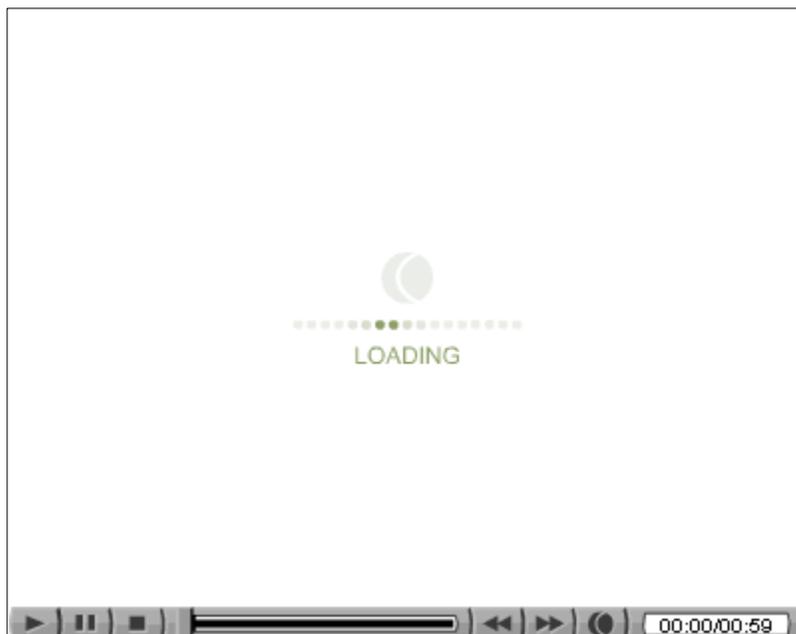


Figure 9 Playback Control Options dialog box

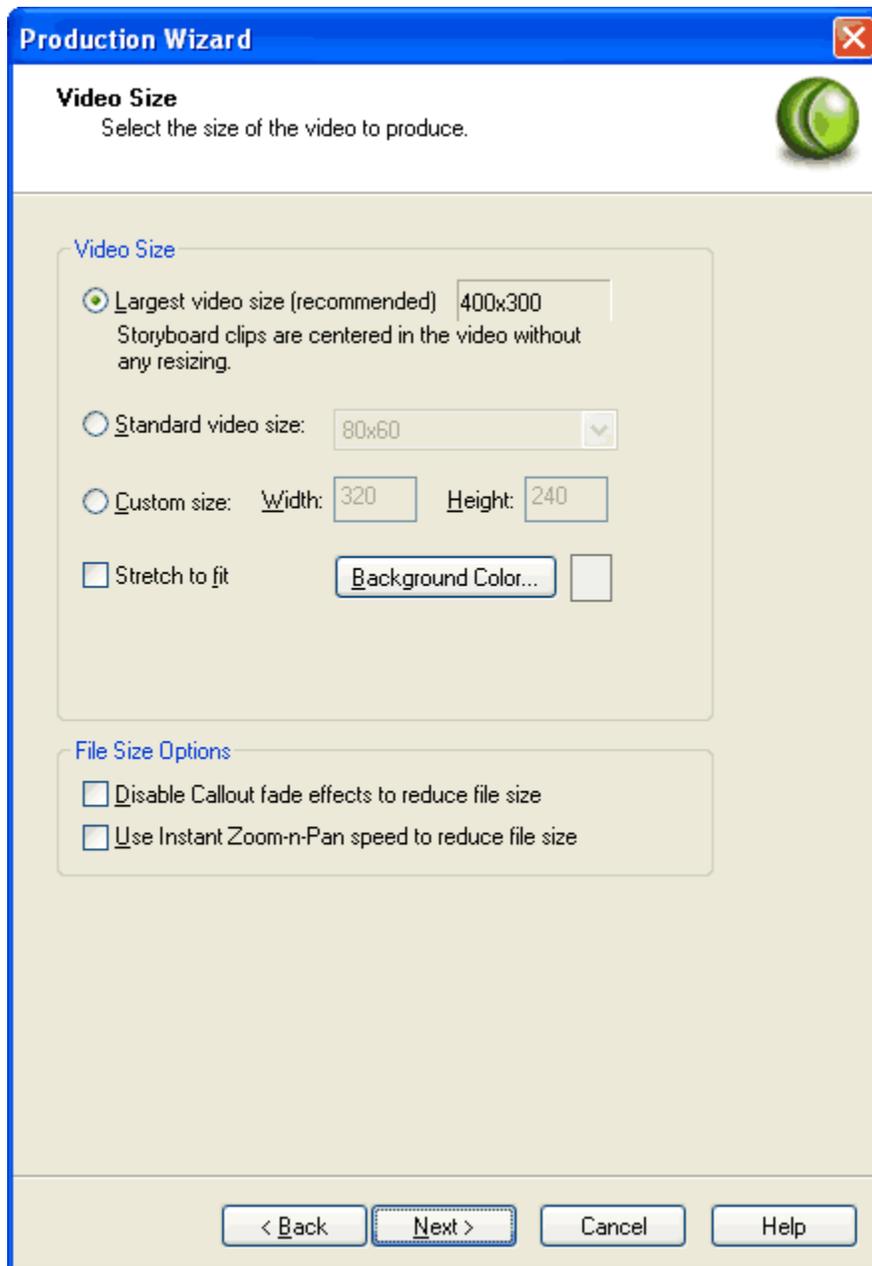
5. If you want to include an author credit or copyright statement, check **Show about box** and enter up to 8 lines of text.
6. By default, Camtasia Studio uses the loading movie shown below:



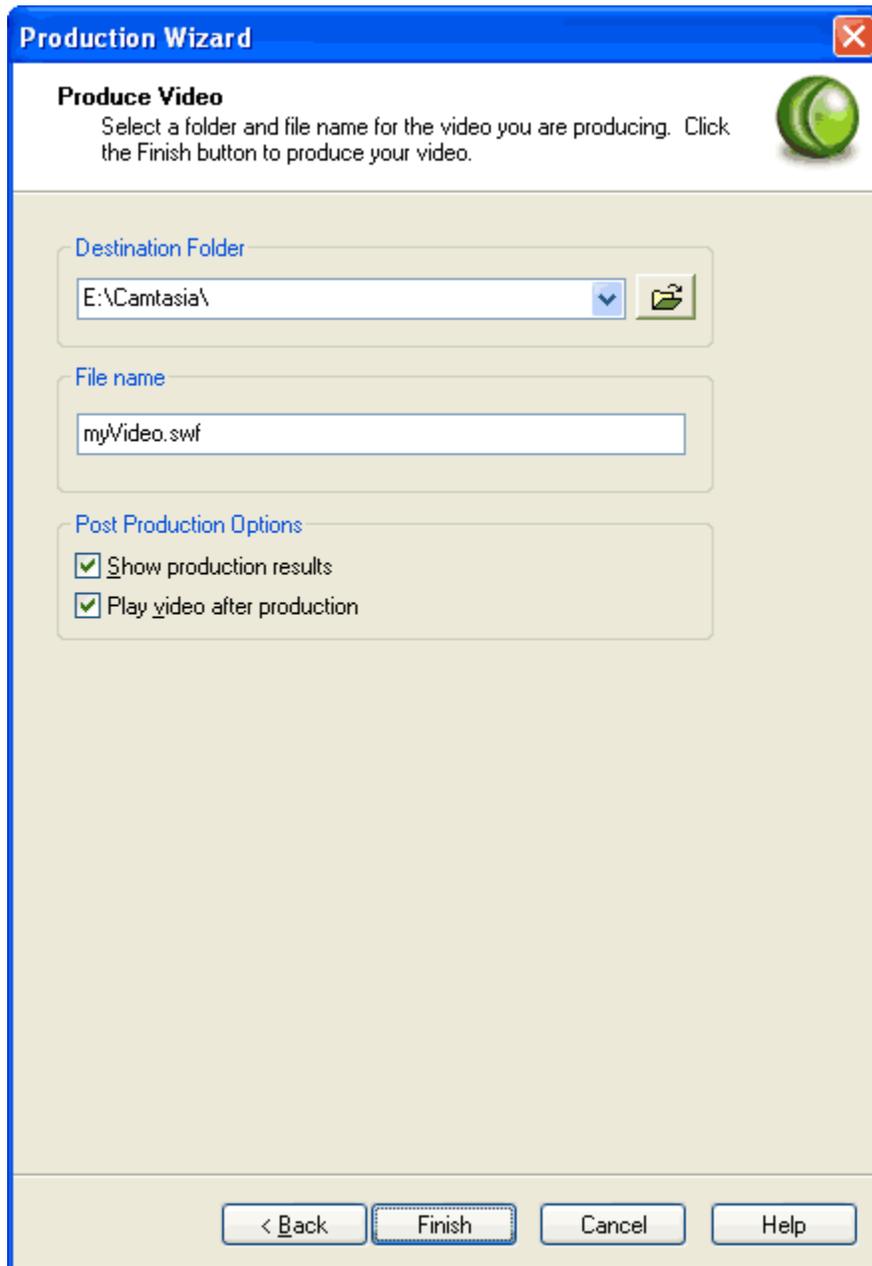
If you prefer to use your own loading movie, simply create a looping SWF file in Flash that matches your video's dimensions. Click the folder icon (see Figure 9) to browse to your pre-loader SWF file.

7. Click **OK** to close the Playback Control Options dialog box.

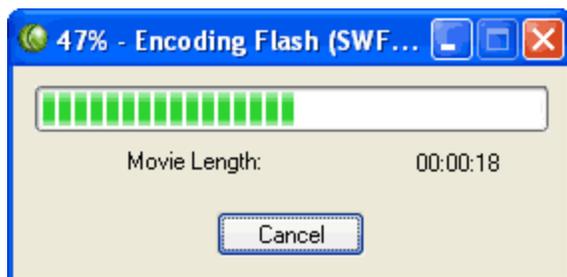
- Click **Next**.
- On the Video Size screen, make sure **Largest video size** is selected. Click **Next**.



- Unless you want to embed a watermark, click **Next**.
- On the final screen, select a folder and enter a filename for your completed SWF file. (You might want to create a subfolder of your working directory called **complete** to keep these files separate from your project source files.) Accept the default Post Production Options, as shown below.



12. Click **Finish**. Camtasia Studio converts the project to Flash SWF format (this may take several minutes), and generates additional files to display it within an HTML page.



13. When the movie is completed, the Production Results dialog box appears, listing information such as files created, content duration, file sizes, and so forth. Click **Close**.

Camtasia Studio launches the completed project in your default browser.

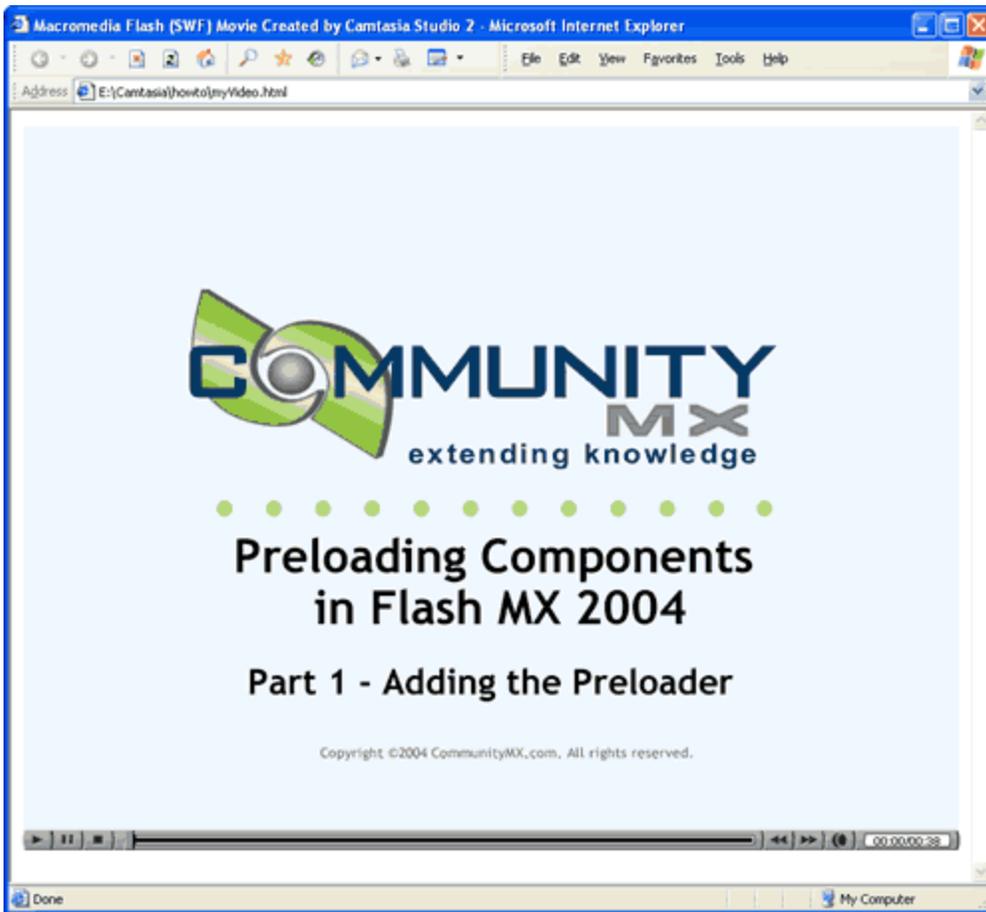


Figure 12 *The completed Camtasia video in Internet Explorer 6*

Notice that Camtasia Studio generates five different files to display your presentation:

- myVideo.html
- myVideo.swf
- myVideo_config.xml
- myVideo_controller.swf
- myVideo_preload.swf

If you open myVideo.html in a text editor, you'll see the following code:

```
<html>
<head>
<title>Macromedia Flash (SWF) Movie Created by Camtasia
Studio 2</title>
</head>
<body bgcolor="#FFFFFF">
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/
flash/swflash.cab#version=5,0,0,0" width="400" height="317"
id="myMovieName">
<param name="movie"
value="myVideo_controller.swf?csConfigFile=myVideo_config.xml">
<param name="quality" value="high">
<param name="bgcolor" value="#FFFFFF">
<param name="FlashVars"
value="csConfigFile=myVideo_config.xml">
<embed
src="myVideo_controller.swf?csConfigFile=myVideo_config.xml"
FlashVars="csConfigFile=myVideo_config.xml" quality=high
bgcolor=#FFFFFF width=400 height=317
type="application/x-shockwave-flash"
pluginspace="http://www.macromedia.com/go/getflashplayer">
</embed>
</object>
</body>
</html>
```

Notice that the Flash movie embedded in the HTML page is **myVideo_controller.swf**. This file contains all the ActionScript logic for pre-loading your video (**myVideo.swf**), displaying the loading video (**myVideo_preload.swf**), and generating the playback controls (Play, Pause, Stop, About, etc.). In addition, if you open **myVideo_config.xml** in a text editor, you'll see that it contains most of the settings you selected in the Production Wizard:

```
<config>
<AutoStart>1</AutoStart>
<MovieWidth>400</MovieWidth>
<MovieHeight>300</MovieHeight>
<BackgroundColor>FFFFFF</BackgroundColor>
<MovieURL>myVideo.swf</MovieURL>
<ShowLoadingMov>1</ShowLoadingMov>
<LoadingMovURL>myvideo_preload.swf</LoadingMovURL>
<ScaleLoadingMov>0</ScaleLoadingMov>
<LoadingMovPercentToLoad>30</LoadingMovPercentToLoad>
<LoadingMovMinDuration>3</LoadingMovMinDuration>
<ControllerColor>C0C0C0</ControllerColor>
<ShowFFRW>1</ShowFFRW>
<ShowAbout>1</ShowAbout>
<AboutBoxText>©2004 CommunityMX.com
All right reserved.</AboutBoxText>
<TimeDisplayFormat>MM:SS</TimeDisplayFormat>
<ShowDuration>1</ShowDuration>
<ShowElapsedTime>1</ShowElapsedTime>
<TimeDisplayFont>Arial</TimeDisplayFont>
<TimeDisplayFontColor>000000</TimeDisplayFontColor>
</config>
```

In other words, you can change many of your video preferences by editing this XML configuration file, rather than republishing your project using Camtasia Studio. The controller movie (**myVideo_controller.swf**) loads these XML values at run-time, and uses them to customize settings such as whether the video starts automatically (**AutoStart**), what percentage of the video to pre-load (**LoadingMovPercentToLoad**), and the contents of the About box (**AboutBoxText**). Try editing these values and refreshing **myVideo.html** in a browser to see the effects of your changes.

Adding Your Camtasia Video to a Web Page

To add a Camtasia video to a web page, you have two options: open the video in a pop-up window (recommended), or embed the video in the page.

Opening the Video in a Pop-Up Window

The easiest way to add your video is to open it in a pop-up window using Dreamweaver's **MM_openBrWindow** function. In fact, if your video exceeds 500 pixels in width, this may be your only option. (View the following CMX article for an example that uses pop-ups: "[Creating a 3-D Pie Chart in Fireworks MX 2004](http://www.communitymx.com/abstract.cfm?cid=AA70198F27A1641B) (<http://www.communitymx.com/abstract.cfm?cid=AA70198F27A1641B>).")

Complete the following steps to open your Camtasia video in a pop-up window:

1. Click **Download Support Files** at the bottom of this page. Extract the zip file and install

the CMX Camtasia Pop-up Window extension (Camtasia_popup.mxp). This is a code snippet for Dreamweaver MX and Dreamweaver MX 2004.

2. Launch Dreamweaver and create a new HTML document (e.g., part1.htm). Save it in the same folder that contains your Camtasia assets. (If you haven't copied your Camtasia files into your Dreamweaver site, do that now.)
3. Switch to Code view and delete all of the page's code.
4. Open the Snippets panel (**Window > Snippets**) and expand the **Community MX** folder.
5. Double-click **Camtasia Pop-up Window** in the Snippets panel to insert the following code:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<title>Video Title</title>
<meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1">
<style type="text/css">
<!--
body {
    margin: 0px;
}
a {
    font-family: Verdana, Arial, Helvetica, sans-serif;
    font-size: 12px;
}
a:link {
    color: #000066;
    text-decoration: none;
}
a:visited {
    color: #000066;
}
a:hover {
    color: #000066;
    text-decoration: underline;
}
-->
</style>
</head>
<body>
<div align="center">
<p>
<!-- Insert OBJECT block here using the CMX Insert Camtasia
Video extension from CommunityMX.com -->
</p>
<p><a href="javascript:;" onClick="self.close()">Close
browser window</a></p>
</div>
```

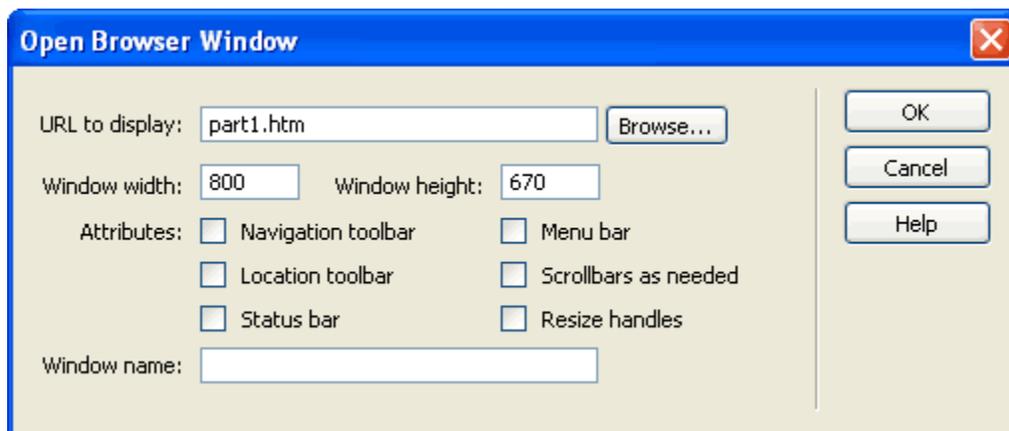
```
</body>
</html>
```

- At this point, all you have to do is copy the `<object>` block from the HTML file generated by Camtasia Studio and paste it into the pop-up template. For example:

```
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/
➔ flash/swflash.cab#version=5,0,0,0" width="800"
height="617" id="myMovieName">
  <param name="movie"
value="myVideo_controller.swf?csConfigFile=myVideo_config.xml">
  <param name="quality" value="high">
  <param name="bgcolor" value="#FFFFFF">
  <param name="FlashVars"
value="csConfigFile=myVideo_config.xml">
  <embed
src="myVideo_controller.swf?csConfigFile=myVideo_config.xml"
FlashVars="myVideo_config.xml" quality=high bgcolor=#FFFFFF
width=800 height=617 type="application/x-shockwave-flash"
pluginspace="http://www.macromedia.com/go/getflashplayer">
  </embed>
</object>
```

NOTE: You can also insert the Camtasia code block above using the [CMX Insert Camtasia Video extension](http://www.communitymx.com/abstract.cfm?cid=C7B53) (<http://www.communitymx.com/abstract.cfm?cid=C7B53>).

- To launch this pop-up window from another document, open an existing web page or create a new document in Dreamweaver.
- Create a null link by selecting some text in the Document window and entering `javascript:;` in the Link text box of the Property inspector.
- Make sure the null link (`<a>`) is selected and open the Behaviors panel (**Window > Behaviors**).
- Click the Plus (+) button and select **Open Browser Window**:



- Click **Browse** to select the pop-up window you created earlier.

12. Make sure the pop-up is 70 pixels taller than your video dimensions to accommodate the controller and the **Close browser window** link. For example, if your video is 800x600, open a 800x670 browser pop-up.
13. Click **OK** to apply the Open Browser Window behavior.
14. Save your work.

On Community MX, our pop-up links include the title of the video, followed by a brief description, as shown below:

[Part 1: Using Camtasia Recorder \(javascript::\)](#)

In Part 1 of this tutorial, you'll learn how to tweak the settings of Camtasia Recorder.

Opens new window. Approximate download size: 271K

[Part 2: Using ScreenPad \(javascript::\)](#)

In Part 2 of this tutorial, you'll learn how to add callouts to your videos using ScreenPad.

Opens new window. Approximate download size: 278K

Embedding the Video in an HTML Page

If your Camtasia video is small enough to embed in a page, you have two options: download the [CMX Insert Camtasia Video extension](#) (<http://www.communitymx.com/abstract.cfm?cid=C7B53>), or follow the instructions below.

1. In Dreamweaver, open the document into which you want to insert the Camtasia video.
2. Open the HTML file generated by Camtasia Studio in Dreamweaver.
3. In Design view, select the Flash object in the second Document window and press **Ctrl+C** to copy it.
4. Switch to the first document and place your cursor where you want the Camtasia video to appear.
5. Press **Ctrl+P** to paste the Flash object into the document.

Alternatively, you can copy and paste the `<object>` block using a text editor, as described in the pop-up section earlier. You may have to edit the paths if your Camtasia assets are not located in the same folder as your HTML document. For example, if you placed your Camtasia files — myVideo.swf, myVideo_controller.swf, myVideo_preload.swf, myVideo_config.xml — in a folder called **assets**, the code block would look like this (the new code is highlighted):

```

<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/
↳ flash/swflash.cab#version=5,0,0,0" width="400"
height="317">
<param name="movie"
value="assets/myvideo_controller.swf?csConfigFile=assets/
↳ myvideo_config.xml">
<param name="quality" value="high">
<param name="bgcolor" value="#ffffff">
<param name="FlashVars" value="csConfigFile=assets/
↳ myvideo_config.xml">
<embed
src="assets/myvideo_controller.swf?csConfigFile=assets/
↳ myvideo_config.xml"
flashvars="csConfigFile=assets/myvideo_config.xml"
quality=high bgcolor=#ffffff
pluginspace="http://www.macromedia.com/go/getflashplayer"
type="application/x-shockwave-flash" width="400"
height="317"></embed>
</object>

```

Here is an example of an embedded Camtasia video:



Unlike pop-ups, you don't want embedded videos to start automatically. This setting is controlled by the `<AutoStart>` tag in `myVideo_config.xml`: `<AutoStart>0</AutoStart>`. A value of 1 means true, 0 means false. View the following article for another example of embedded videos: "[Instant Replay Part 1 - Fireworks \(http://www.communitymx.com/abstract.cfm?cid=807A1\)](http://www.communitymx.com/abstract.cfm?cid=807A1)."

Conclusion

I hope this tutorial inspires you to experiment with Camtasia Studio 2. There's a lot more you can do with Camtasia than we covered here. For example, if you own Flash MX Professional 2004, Camtasia Studio can produce your project in Flash video (.flv) format. In addition, you can add callouts, hotspots, and transitions to your desktop recording.

If you use Camtasia Studio frequently, take a look at the [CMX Insert Camtasia Video extension](http://www.communitymx.com/abstract.cfm?cid=C7B53) (<http://www.communitymx.com/abstract.cfm?cid=C7B53>). This extension adds a Camtasia Video button to Dreamweaver's Insert bar to simplify embedding Camtasia videos into HTML documents.

Approximate download size: 1.1MB

To view these videos offline, click **Download Support Files** at the bottom of this page. Extract the zip file to a folder on your computer and double-click **video\index.htm** to launch the tutorial in your default browser. Approximate download size: 1.1MB

Keywords

screen action, capture, record, camtasia studio 2, techsmith, produce, flash, swf, xml, tutorial

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