Incorporating multimedia files

With web technology advancing as quickly as it is, it is not uncommon to see video, audio and animation being used in websites. With streaming technologies, better codecs (compression algorithms), and generally higher bandwidth in our homes, being able to deliver small-sized, high-quality web video is becoming more of a reality. Companies such as Microsoft, Apple, Real, Autodesk, Adobe, Sorenson, DivX to name a few, have made strides in helping this along.

Video on the Web

One of the drawbacks of using video in your website is people's playback equipment. Some people have slow computers, some have fast computers, some people have lots of RAM, others have only a little. Some users have dial-up modems, others have broadband, some users own a PC, others a Mac. You can see why it is important to know your audience - to at least have some idea of the kinds of playback equipment your audience will be accessing your website with.

If this doesn't sound bad enough, another drawback is that media players have also been adopted to view specific media formats on different computers. It's like the browser wars all over again.

Although all this might be enough to make you forget web-based video altogether, it's important to understand that times are changing (it actually wasn't that long ago that images were an exciting multimedia aspect of websites). People are buying faster computers and the number of people who own broadband in their homes is on the rise. Also, companies such as Microsoft, Apple and Real have introduced media players that are interoperable with each other's media formats.

Video delivery formats

There are three methods for accessing video on the web:

- Direct download – when users click on the video link on a webpage, they download the video file to their computer. Once it is downloaded, they can play it in the appropriate media player whenever they want. However, because it is stored on their computer, your video is not protected from being distributed without your permission.

- Progressive download – when users click on the video link, they can start to watch the video as it is being downloaded to their hard drive.

- Streaming – when users click on the video link, they can start to watch the video, but it is not being downloaded to their computer.

For clips under 5 secs, direct download is fine. Clips up to 30 secs long, progressive download is good. Clips over 30 secs long, streaming is the best. If you don't want your video to be stored on a user's hard drive, streaming is the best mode of delivery, however, quality is not as good. You also need a special streaming server to be able to stream a video clip on your webpage.

For a more in depth discussion on the differences between progressive download and streaming visit http://www.streamingmedia.com/article.asp?id=8456&page=1&c=11

Media Players

Regardless of whether you are allowing your users to download, progressive download, or stream media files, users must have a media player on their computer that supports the media type you are offering on your web pages. The three popular media players are Windows Media Player, Real Media and QuickTime. Flash video is also starting to gain popularity.

RealMedia

Real was the first to offer a streaming server and is considered the pioneer of streaming video. RealPlayer supports video, images, text, Flash movies, and audio, and is supported by more platforms than any other media player available. It is available for Windows, Mac, UNIX, Linux, OS/2, and Palm OS. RealPlayer can be downloaded for free at www.real.com. For information on the other encoding software and streaming server software visit www.realnetworks.com/products/

QuickTime

QuickTime was the first application that enabled you to play digital video on a computer. The QuickTime player is different to the QuickTime Video format. The QuickTime player allows for viewing of different content including MOV, QuickTime Video, Flash movies, Windows Media, 3D objects (QuickTime Virtual Reality – QTVR), MP3, MPEG and much more. The QuickTime player can be downloaded for free at www.apple.com/quicktime/player. For information on the other encoding software and streaming server software visit www.apple.com/quicktime/

Windows Media Player

The Windows Media player also has the capability to play numerous video formats, such as ASF, ASX, AVI, MPG, MOV, and WMV, and comes already installed on all Windows operating systems. For more information and the latest updates for Windows Media, visit http://windows.microsoft.com/en-US/windows/products/windows-media/

Like QuickTime and RealMedia, Microsoft also provides streaming server software. For more information visit www.microsoft.com/windows/windowsmedia/forpros/server/server.aspx

Flash Video

Flash video files are represented by the FLV extension. No additional plugins are required (aside from the Flash plugin). As long as the user has Flash Player 7 or later, there is no problem, and they load quickly. Video files can be easily encoded to the Flash Video format by using Media Encoder, a program that comes with the Adobe Suites.

Video file formats for web

The best video formats to use for your webpages are:

- MOV (QuickTime movies)

- AVI

- MPG

- WMV (Windows Media Video)

- RM (RealMedia)

- FLV (Flash Video)

Adding video to your webpage

Unless you are working with streaming video, it is relatively self explanatory to work with video clips in Dreamweaver. For the most part, you add a media file by embedding the file into the web page, then save the document and view the page in the desired browser. Depending on the media type you decide to use, the browser recognises the format, launches the appropriate plugin (if it is installed), and plays the video. If the browser can't play the video (because the appropriate plugin isn't installed) you have the option of manually providing the location of the media player's plugin.

Linking Video

The simplest method for allowing users access to your video files is to create a link on your web page.

1. Type an appropriate label for your video file in your web page.

2. Select the text and, in the Properties panel, either drag the point-to-file icon, or click on the Browse for File folder of the Link option (as you would if you were linking to another page).

3. Find your video file and select it. Make sure your video file is in your website folder.
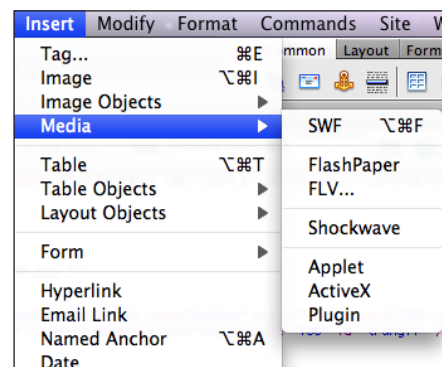
4. Save your file and view it in the browser.

When the page loads, click on the video link you created. You'll quickly notice that the movie is progressively downloaded and played in another page. You can also Control-click/right-click the link and choose the Save Target As option from the context menu to save the media file to disk for playback later.
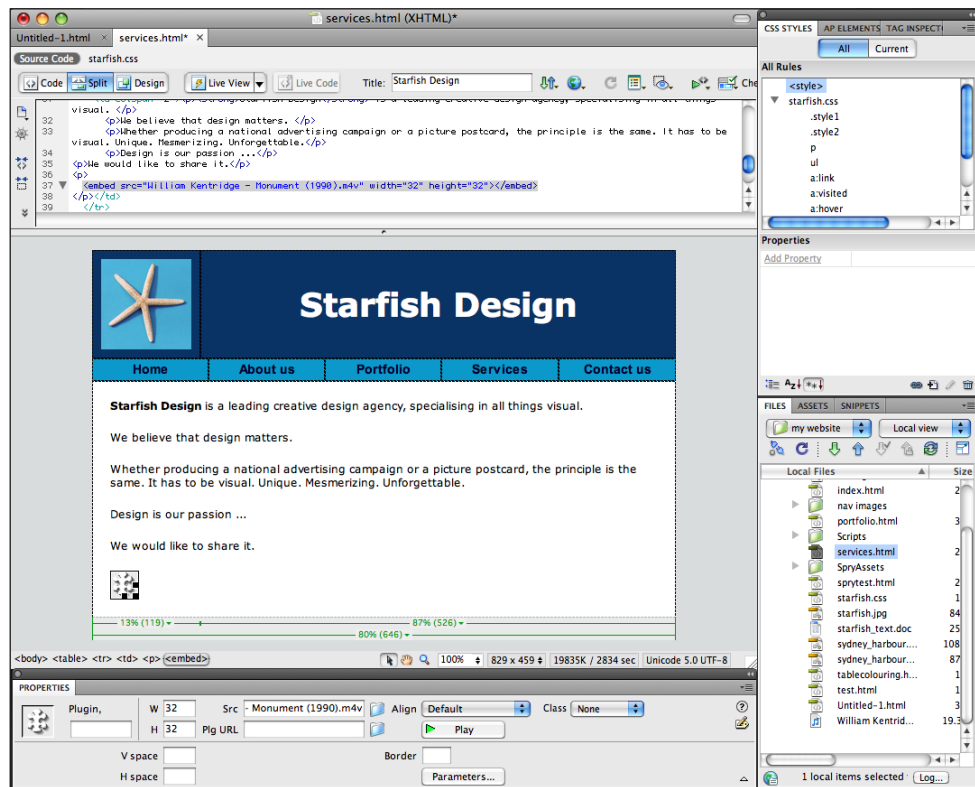
Embedding Video

The disadvantage of the previous example is that the link takes you away from your webpage. The video appears in a new page with no other elements from your previous page. The user is taken away from your site and forced to watch the video in a blank browser page. If you embed your video clip in your web page, the browser forces the progressive download of the file directly within the context of the overall design. By doing this you also have control over other options like sizing, vertical and horizontal spacing, specifying a plugin source, alignments, borders.

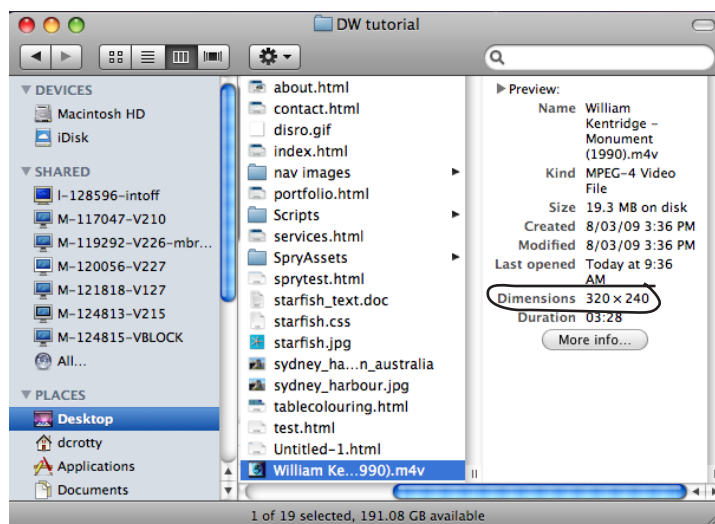To embed a video into a webpage:

1. Choose Insert > Media > Plugin

    The Select File dialog box appears

2. Browse to find your video file (remember, it must be in your website folder).

    Alternatively, you can drag your video file from the Files panel onto your page.

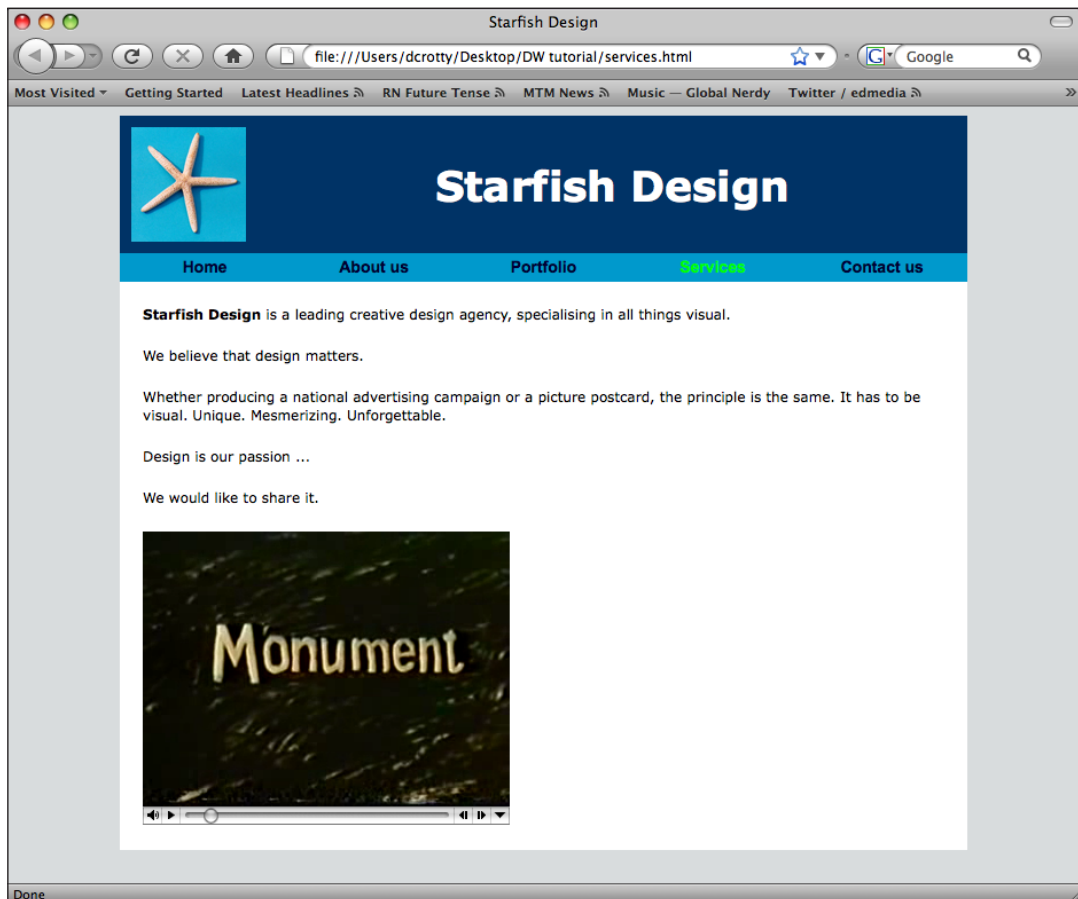   Either way, a small 32 x 32 pixel icon appears on your page.

3. You can resize the default icon to match the size of the video it will play by typing in a width and a height in the Properties Inspector (make sure the icon is selected).

If you are unsure of the video size, click on the file in the Finder, or right-click the file in Windows and go to Properties. This will give you the dimensions.
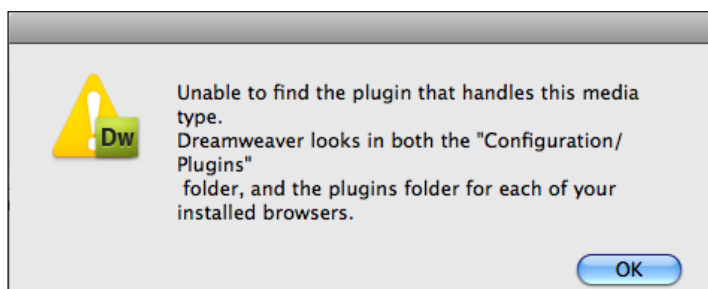
The movie I'm using in this example is 320 x 240 pixels. You can generally add another 20 pixels to the height to include the control bar, but this may vary depending on the player. You will have to experiment with this.

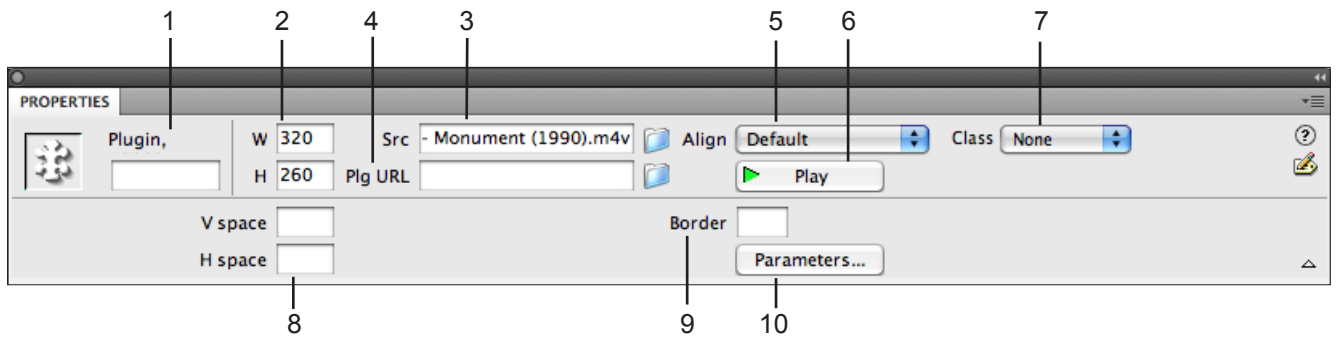4. Save your file and view it in the browser.

When the page loads in the browser, the movie is downloaded and played within the context of the overall design.

Note: You may notice that there is a play button in the Properties Inspector. If you click on this Play button, you may get this message

Don't worry about this. You should still be able to view it in the browser window.

You'll notice in the Properties Inspector when you have the video icon selected that there are other options available.
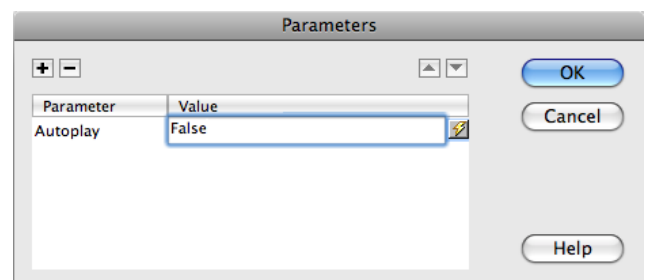
1. **Plugin,** (or Clip Name) – Enter a name in this text box to uniquely identify the media file.

2. **W and H** – Enter numeric values in these two text boxes to set the width and height (in pixels) of the media file.

3. **Src** – Displays the full path to the media file

4. **Plg URL** – Enter the URL for the company of the specific media type. This way, if users don't have the specific plugin installed, they can visit the URL you attach to download the appropriate plugin.

5. **Align** – Choose an option from this menu to set the alignment of other elements on your web page in relationto the media file.

6. **Play** – Click this button to play the media file directly in Dreamweaver

7. **Class** – When working with CSS, apply a custom class to the media file by choosing the class from this menu.

8. **V and H** – Enter numeric values in these text boxes to set the vertical and horizontal spacing (in pixels) around the media file.

9. **Border** – Enter a numeric value in this text box to set the border size (in pixels)around the media file.

10. **Parameters** – QuickTime movie and RealMedia files allow you to specify parameters for the movie to control looping, movie speed, whether to show the menu bar, and so on.

Adding parameters

A number of other properties can be added to the embedded video to control aspects of the videp clips using the Parameters dialog box.

To add a parameter to your movie:

1. With existing video clip selected, click the parameters button in the Properties inspector. The Parameters dialog box appears.

2. Enter the parameter name Autoplay in the Parameter column and the value False in the Value column.

3. Click OK

4. View your page in a browser.

When your page opens in the browser your movie will download, but it will not automatically play. The user needs to click on the play button of the movie controller to play the movie.

You could also set a parameter to hide the controller and have the movie automatically play and loop. To do this you would set parameters and their values as:

Autoplay   True
Controller   False

Loop   True

Parameters are different for QuickTime and RealMedia. The above parameters are for QuickTime.

Embedding YouTube movies in your webpage

There are two ways that you can use YouTube videos in your webpages. The first is to add a link from your page to the selected YouTube movie page. To do this you add a link as you would if you were linking to another web page using the URL of the YouTube page.

This, of course, will take your users away from your web page, which may not be the best user experience you want your users to have.

You can embed a YouTube video in your webpage, so it appears and plays within the context of the overall design and doesn't take your users away from your website. Another benefit of this is that the movie still streams from the YouTube site. The YouTube site supplies the embed source code for you to add to your page.
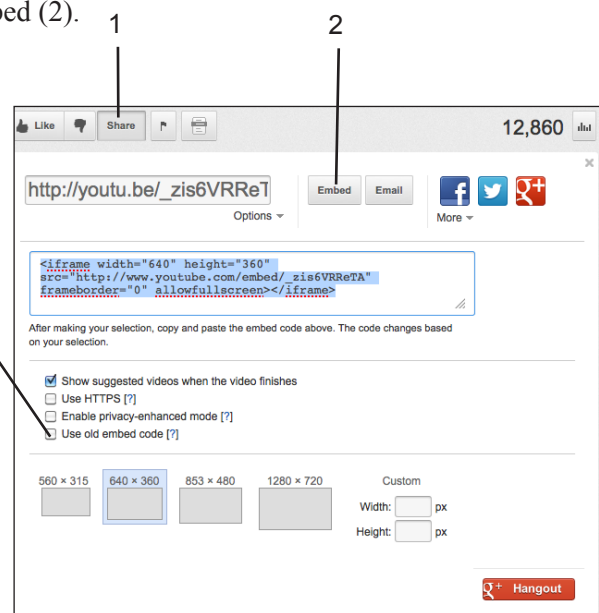
To embed a YouTube video in a web page:

1. In the YouTube web page of your chosen clip click on the Share button (1) to extend the customise window, then click on Embed (2).

   YouTube gives you the opportunity to the display size of the movie.

   YouTube now uses the iframe tag to embed video, but you can choose the old embed code. If you are having problems you might want to try this code.

2. Once you are happy with the customisation copy the Embed source code into the **code section** of your web page in Dreamweaver.

```
1    <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
     "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
2    <html xmlns="http://www.w3.org/1999/xhtml">
3    <head>
4    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8"
     />
5    <title>Untitled Document</title>
6    </head>
7
8    <body>
9    <iframe width="640" height="360" src=
     "http://www.youtube.com/embed/_zis6VRReTA" frameborder="0"
     allowfullscreen></iframe>
10   </body>
11   </html>
12
```

3. Refresh the Properties Inspector

    The movie will appear in the design window like this.

4. Save your page and view it in the browser.

    You may get this window pop up.

    Don't worry about this, just click OK.

Adding Audio to a webpage

You add audio to web pages in the same way as you do video files.

1. Click in your page where you want your sound controller to appear

2. Choose Insert > Media > Plugin

3. Browse to locate your file (remember, your file must be in the same folder), select it and click OK.

    A new plugin icon appears on the page.

    The plugin icon's size varies with the audio player you are targetting. For Windows Media player, a good size is 320 pixels wide by 45 pixels high. Again, you may have to experiment with this.

    You can change these sizes in the Width and Height in the Properties Inspector.

4. Save your file and view it in the browser.

    When the page loads in the browser, the audio clip begins playing in the default player of your operating system.

You can also control whether the contoller is visible or hidden, and whether the audio starts automatically or the user has to click to start.

5. To do this, select the plugin icon and click the Parameters button in the Properties inspector. The Parameters dialog box appears.

6. Add the hidden parameter and set the value to true

    Add the autostart parameter and set the value to false

    You can also add a loop parameter (with the value of true) if you want your audio to loop.

Important

For usability best practice, it is always best to give your users choices in whether they want to listen to the audio on a webpage or not. For this reason, it is recommended to always have the controller visible. This way, users can opt to turn the volume down, or off. If you want to have background music in your website, always think very carefully about the kind of music you choose.

Adding a Flash animation to your web page

To insert a Flash animation into your web page your file must be saved as a SWF file, for it to be viewed in a browser.

To insert an SWF file into a web page:

1. Click where you want your SWF file to appear

2. Choose Insert > Media > SWF

3. Browse to select your SWF file (remember it must be in your website folder).

4. Give it a title in the Object Tag Accessibility Attributes dialog box.

5. The Flash movie appears in the Document window as a gray box with the Flash logo.

If you click on the small eye icon located at the top right of the movie this will show you the view that users will see if they don't have the Flash Player plugin installed on their computer.

You can view the movie by clicking on the Play button in the Properties Inspector.

For more information on including multimedia in your pages see:

http://www.w3schools.com/html/html_media.asp