

Captioned Slideshow

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Document History

Date	Status	Comments
2009-02-10	Complete	Wrote documentation.
2009-02-11	Update	Add information on hyperlinking images or captions.
2009-08-14	Update	IE6 compatibility, SEO considerations & objectifying the slideshow

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1. Feature/Project Name

Captioned Slide Show

1.1. Overview

The Devious Fish captioned slideshow makes use of CSS, the DOM, and JavaScript to provide a cross-browser slideshow mechanism that allows full access to HTML layout capabilities. Slides and captions are defined in HTML, with layout defined with CSS. JavaScript interaction is minimal, and thus knowledge of JavaScript required by the designer is minimal.

1.2. Capabilities/Features

- Captions are faded and images cross-faded for a gentle, pleasant user experience.
- Unlimited number of images or captions per image.
- Adjustable slide display time (including alternate time for first image.) and transition speed.
- Initial image is retrieved and rendered along with the rest of the page.
- Displays an image and caption even if JavaScript is disabled.
- Images and/or captions may be hyper-linked. Each slide and caption may have a different destination.
- Easy set-up.
- Random slide order capability.
- Ability to loop or play slideshow once and stop.

1.3. Limitations

- Captions will have rounded edges only on supporting browsers. At the time of this writing, this includes Mozilla and Apple's Safari (and other derivatives of the respective rendering engines). Internet Explorer and Opera do not yet support rounded borders.
- All images in the slideshow must have the same aspect ratio.
- The slideshow is a fixed size and does not respond to window resizes. This aggravates development of liquid layouts.
- In the event JavaScript is disabled, the initial image will be displayed but will not change.
- Since the slideshow captions appear as document text, they may appear as snippets of disjoint text within the page to search engines when viewed with text-only browsers.
- If styles are disabled or unsupported, images will be displayed without a slideshow.

Note: Devious Fish has a non-captioned viewer which can handle variable aspect ratios. The module is also adaptive to window size to facilitate liquid layouts.

2. Instructions for Use

2.1. Adding the slideshow to a page

2.1.1. With Raw HTML

Note: If using the M4/HTML package, ignore this and see the section ahead.

The slideshow mechanism is encapsulated within the JavaScript module `captionedshow.js`. An affiliated CSS stylesheet is also necessary. These can be imported into a web page as follows:

```
<script type="text/JavaScript" src="path/captionedshow.js">
<link href="path/captionedshow.css" rel="stylesheet" type="text/css">
```

The script should be triggered at completion of page load by an ONLOAD attribute of the BODY element:

```
<body onload="slideshow_start();">
```

2.1.2. With the M4/HTML package

This section only applies if using the M4/HTML package.

If creating a slideshow with the M4/HTML package, instead of putting in the SCRIPT and LINK tags above, instead include the header file for the slideshow:

```
m4_include(DIR_INCLUDE/captionedshow.m4)
```

Code to trigger the slideshow start will be inserted at the bottom of your HTML document.

As you move into the next section, replace the outermost `<DIV>...</DIV>` with:

```
_SLIDESHOW_START
...
_SLIDESHOW_END
```

2.2. Defining the slides of the Slideshow Using HTML

The slideshow images and captions are added and ordered with HTML. The portion of the HTML document containing the slideshow must be structured as follows:

The slideshow is defined with a DIV element of class "slideshowframe" with ID "slideshow".

Within this element, any number of DIV elements each define a slide.

```
<div id="slideshow">          <!-- _SLIDESHOW_START for M4/HTML package -->
  <div class="slideshowframe">
    ... this is the first slide ...
  </div>
  <div class="slideshowframe">
    ... this is the second slide ...
  </div>
  ...
  <div class="slideshowframe">
    ... this is the last slide ...
  </div>
</div>                       <!-- _SLIDESHOW_END for M4/HTML package -->
```

Within the DIV for a slide, you must include 1 IMG element to define the slide, and 0 or more DIV elements which will be the captions overlaid on the IMG. For example:

```
<IMG SRC="foo.jpeg" ALT="Mister T.">
<DIV CLASS="topright">
  <P>Don't call me a foo, sucka!
</DIV>
```

2.3. Hyper-linking

Hyper-links can be added to the slideshow captions or images as they would be to any HTML code. Links become active immediately *after* a transition is complete; clicks occurring as a transition starts will direct to the “old” location.

If an image is hyper-linked, clicking on a caption will be non-responsive (if the caption is non-linked) or will follow the link associated with the caption.

2.4. Adjusting the Slideshow Size

It is preferable that you set the height and width in your own source file rather than mucking about with the captionedshow.css file. Thus, in the <STYLE> portion of the HTML header, your local CSS document:

```
<STYLE>
  DIV#slideshow {
    height: 400px;
    width: 300px;
  }
</STYLE>
```

Or in the <DIV> itself set the height and width and width:

```
<DIV ID="slideshow" STYLE="height: 400px; width: 300px;">
...
</DIV>
```

Note that the proportions you give should match the images’ proportions, or the images will be distorted.

2.5. Styles for the Slideshow

There is no reason to assign special classes to the images.

The following style classes are available for the slideshow captions:

- **toleft, topright, bottomleft, bottomright:** These classes define locations for captions.
- **gray, transparent, white:** By default, captions are white with a black background. These styles change the text/background colors to white/gray, white/transparent, and black/white respectively.

If you want to override these in your own style-sheets, define your derivatives as:

```
DIV#slideshow DIV.slideshowframe DIV.class_name
```

Default colors can be set by overriding:

```
DIV#slideshow DIV.slideshowframe DIV
```

2.6. Hiding Captions from Search Engines

Slideshow captions appear as text to search engines. If the slideshow is located at the top of a page, text will precede the first heading. Since this is the normal state of affairs for navigation menus, this is not considered a major problem.

Captions may appear as disjoint text within the body if the slideshow is lower. This may interfere with Blind users and will be picked up as part of the body of text by search engines. Search engines may regurgitate the disjoint text as part of a search response page.

If you wish to avoid the captions being inline, then you may place the entire slideshow within an embedded OBJECT. This moves the captions to a separate document which will be searched independently. Be sure the separate document is set to NOINDEX, or search engines may direct users specifically to that document— which will not be useful to them or to you.

Internet Explorer 6 and 7 do not handle OBJECT correctly for HTML documents. Even when done with an IFRAME, the rest of the page does not render correctly with the slideshow as an embedded, separate document. One workaround is to provide a static image for those browsers using Microsoft's condition comment mechanism.

2.6.1. With Raw HTML

Note: If using the M4/HTML package, ignore this and see the section ahead.

Use the following as a template to insert the

```
<!--[if !IE]><!-->
  <OBJECT DATA="$1"
    WIDTH=width_of_slideshow + 2
    HEIGHT=height_of_slideshow + 2>
  </OBJECT>
<!--><![endif]-->
<!--[if gte IE 8]>
  <OBJECT DATA="$1"
    WIDTH=width_of_slideshow + 6
    HEIGHT=width_of_slideshow + 6>
  </OBJECT>
<![endif]-->
<!--[if lte IE 7]>
  <IMAGE SRC="static-image.jpeg" ALT="Alternate text"
    WIDTH=width_of_slideshow
    HEIGHT=width_of_slideshow>
<![endif]-->
```

2.6.2. With the HTML/m4 Package

This section only applies if using the M4/HTML package.

If creating a slideshow with the M4/HTML package, instead of the block above instead include the header file for the slideshow:

```
m4_include(DIR_INCLUDE/captionedshow.m4)
```

Then add a call as shown below to generate the above-shown block of HTML.

```
_SLIDESHOW_EMBED(slideshow-file.html,
  width-of-slideshow, height-of-slideshow,
  static-image.jpeg, ALT="Alternate text")
```

2.7. Adjusting Slideshow Timing

The slideshow timing is set in the JavaScript code. You can make adjustments by setting the variables after importing the script:

```
<SCRIPT TYPE="text/JavaScript">
    display_time = 5; // Change display time to 5 seconds.
</SCRIPT>
```

You can adjust the following using this method:

- **display_time** (default 7): The duration to display a slide before changing images, in seconds.
- **first_display_time** (default: same as regular display time): The duration to display the first image. Subsequent images will all use display_time, above.
- **fade_time** (default 2): The total time to fade between images, in seconds. The first quarter of the time is fading the old caption out, the middle half is cross-fading the images, and the last quarter is spent fading the new caption in.
- **fade_steps** (default 20): The number of transitional fading steps. Setting this higher makes the transitions smoother, but may cause transitions to take excessively long on older hardware.
- **caption_fade_multiplier** (default 1.2): Adjusts the opacity of captions. Range is 0 - 2, with 1 = 50%, 2=solid.
- **slideshow_random_order** (default 0 (off)): When set to 1 (on), all slides after the first are presented in a random order. The initial slide is never random and is the first one defined in your HTML. In random mode, images may be repeated before all slides have been displayed.
- **slideshow_repeat** (default 1 (on)): When set to 0 (off), the slide show stops when it has reached the last slide. When 1 (on), the slideshow loops back to the first slide. In random mode (above), the slideshow always repeats indefinitely and the repeat control has no effect.

2.8. Debugging/Development

During development, you may want to navigate to slides quickly to verify layouts without having to wait for the entire slideshow to go round. The slideshow supports a control interface, allowing you to skip forward, backward, or go to a particular slide.

2.8.1. With the M4/HTML package

To enable the controller when using the M4/HTML package, add this line to your HTML:

```
_SLIDESHOW_SHOW_CONTROLLER
```

Alternately, in a style-sheet include this override:

```
DIV#slidecontroller { display: block; }
```

2.8.2. With raw HTML

To create a controller when coding raw HTML, paste this into your code:

```
<div id="slidecontroller">
    <input id="slidenummer" type="text" onchange="goto_image();"
        size="3" value="1"> /
```

```
<input id="slidecount" type="text" size="3" value="" readonly>:
<input type="button" onclick="first_image();" value="|&lt;&lt;"
  title="First image">
<input type="button" onclick="prior_image();" value="&lt;"
  title="Prior image">
  <input type="button" onclick="next_image();" value="&gt;"
  title="Next image">
<input type="button" onclick="last_image();" value="&gt;&gt;|"
  title="Last image">
Slide time: <input id="slidetime" type="text"
  onchange="set_duration();" size="2" value="7">
</div>
```

By default, the controller will be hidden (thus, you can leave it in for future maintenance when unused). To display the controller, include this override in a style-sheet:

```
DIV#slidecontroller { display: block; }
```

3. Sample

```

<DIV ID="slideshow">          <!-- _SLIDESHOW_START for M4/HTML package -->
  <DIV CLASS="slideshowframe">
    <IMG SRC="foo.jpeg" ALT="Mister T.">
    <DIV CLASS="topright">
      <P>
        <A HREF="http://a-teamquotes.com">
          Don't call me a foo, sucka!
        </A>
      </DIV>
    </DIV>
  </DIV>
  <DIV CLASS="slideshowframe">
    <IMG SRC="smith.jpeg" ALT="Hannibal">
    <DIV CLASS="bottomright">
      <P>I love it when the code comes together!
    </DIV>
  </DIV>
  <DIV CLASS="slideshowframe">
    <A HREF="http://prettyguys.com">
      <IMG SRC="face.jpeg" ALT="Did thus guy have a name?">
    </A>
    <DIV CLASS="upperleft gray">
      <P>I don't remember his catch phrase...
    </DIV>
    <DIV CLASS="lowerright gray">
      <P>But he <EM>was</EM> a womanizer.
    </DIV>
  </DIV>
  <DIV CLASS="slideshowframe">
    <IMG SRC="murdock.jpeg" ALT="Murdock">
    <!-- This guy is so cool he doesn't need a caption. -->
  </DIV>
</DIV>          <!-- _SLIDESHOW_END for M4/HTML package -->

```