

Implementing jQuery into a Freeway Page

Here we will run through the steps used to implement the jQuery horizontal scrollbar which can be found at <http://flowplayer.org/tools/demos/rangeinput/scrollbar.html> – but please note that we cannot give specific support or instructions for other JavaScript functionality you may find on the web. This is because the way the code is used and edited (sometimes by doing your own hand-coding) varies greatly from one to the next – and many of the sites which offer the code give very limited details of how it needs to be used, sometimes to the point that only those with excellent coding skills will be able to use it.

As you will see, this is a long and complex procedure – and this will be the same with any other web design application unless a Freeway Action (or a similar method in other applications) is available to use to simplify the process.

It is very important to note that mixing and matching JavaScript libraries on the same page will often cause conflicts. This means that using jQuery functionality on a page will break the Scriptaculous functionality used by many Freeway Actions. This will be discussed later in this article with a specific example. Sometimes this can be fixed by specifying some “NoConflict” code – however, this cannot be fixed with this particular jQuery function without a major rewrite of the supplied jQuery code.

Overview

We are often asked by customers how a particular website has used some special functionality, and they ask if this can

be done in Freeway. Sometimes there is a Freeway Action that someone has written (which may be one that we supply or one written by a third-party author) – which is by far the simplest way to achieve that result (or something very similar) – but sometimes a specific JavaScript library effect has been used or it may even have been hand-coded.

Essentially, just about anything can be achieved in Freeway – but you need to appreciate that this type of functionality can often only be done with good knowledge of JavaScript, CSS, HTML and sometimes other coding languages. It is often the case that the code already exists and is offered free on the Web so you can copy and paste the code (or enter the path to a “referenced” .css and .js file) into the Head and/or Body tags of the page or used inside a markup item. The way that code is used will vary greatly from one solution to the next, and there is no specific standard in how it is implemented or with the naming conventions given by such sites.

jQuery – one such specific JavaScript library – is a cross-browser library which lets web designers include complex and elegant functionality on their sites, and it usually works reliably on both Mac and PC browsers. More recently, however, many jQuery solutions use CSS3 features which may vary in appearance from platform to platform and browser version to browser version – this is because CSS3 is not currently supported by Internet Explorer for PC and earlier versions of Firefox (for Mac and PC) only support certain CSS3 attributes. On the whole though, the main

functionality usually works in the vast majority of browsers, even if the appearance differs slightly.

Getting the necessary code and files

Visit the page at <http://flowplayer.org/tools/demos/rangeinput/scrollbar.html> to see a demo of a working horizontal scrollbar which scrolls content horizontally within a window. On this page you will also see the code required to make it work – and if you have at least a basic knowledge of HTML you will also see how the items on the Freeway page need to be structured for it all to work.

In the section under the “HTML coding” heading, you will see the code:

```
<div id="scrollwrap">
  <div id="scroll">
    jQuery TOOLS 1.2.5 Rangeinput. HTML5
    ranges for humans.
  </div>
</div>
```

which tells us that on the Freeway page there needs to be an HTML “Layer” item (called “scrollwrap”) which has a “child” HTML Layer item (called “scroll”) nested inside it. We can see this because there is a new “div” inserted before the closing “end div” (</div>) tag. The “scrollwrap” will be the “window” inside which the wider “scroll” item will be the content that slides across the window when the scrollbar below is clicked and dragged on in a browser.

Note that a “div” is a Layer item on the Freeway page (either drawn on the page with the CSS Layout button switched on, or by selecting the item and then switching on the Layer option in the Inspector). Layers are only

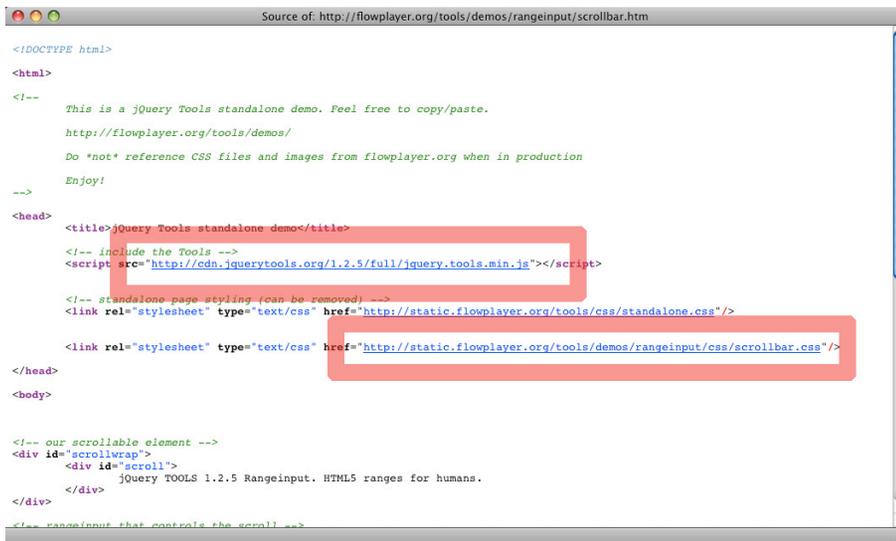
supported in Freeway Pro, which means that Freeway Express users will not be able to use the vast majority of JavaScript library functionality. For this functionality to work, the code needs to be able to target a specific “div” item (by looking for its “div id” name), so it can’t be done with simple “table-based” items.

Near the foot of the page is a blue panel with a “standalone version” link – click on this link to see a page with just the bare bones of the functionality you want to implement displayed (without the clutter of the previous page). Bookmark this page as you will be revisiting it often to get the code by viewing the source code of the page.

Because you will be copying and pasting code from the browser window into Freeway, it is important that you have a dedicated HTML Editor application to use so that only the pure code will be copied into Freeway. If you don’t already have a dedicated HTML Editor, you might want to download and install the free application called TextWrangler from <http://www.barebones.com/products/textwrangler/>.

Go to the “jQuery Tools standalone demo” page at <http://flowplayer.org/tools/demos/rangeinput/scrollbar.htm> and view the source code (in Safari go to **View>View Source**, in Firefox go to **View>Page Source**) to open a new window containing the source code of the page. Click on the first link marked on the screenshot below (this is close to the top of the source code window) called “<http://cdn.jquerytools.org/1.2.5/full/jquery.tools.min.js>”, click inside the new browser window, select all the text, copy it, launch TextWrangler, paste in the copied code and then go to **File>Save** and save the file to your hard disk with the name of “jquery.tools.min.js” (without the quotes). Next, do the same for the second link highlighted in the

screenshot below by clicking on the link called “<http://static.flowplayer.org/tools/demos/rangeinput/css/scrollbar.css>” (you can ignore the other .css file link) and save that to your computer as well, giving it the name of “scrollbar.css” (without the quotes). Keep these two files safe for now – you will need them later. You can now close the source code window for now.



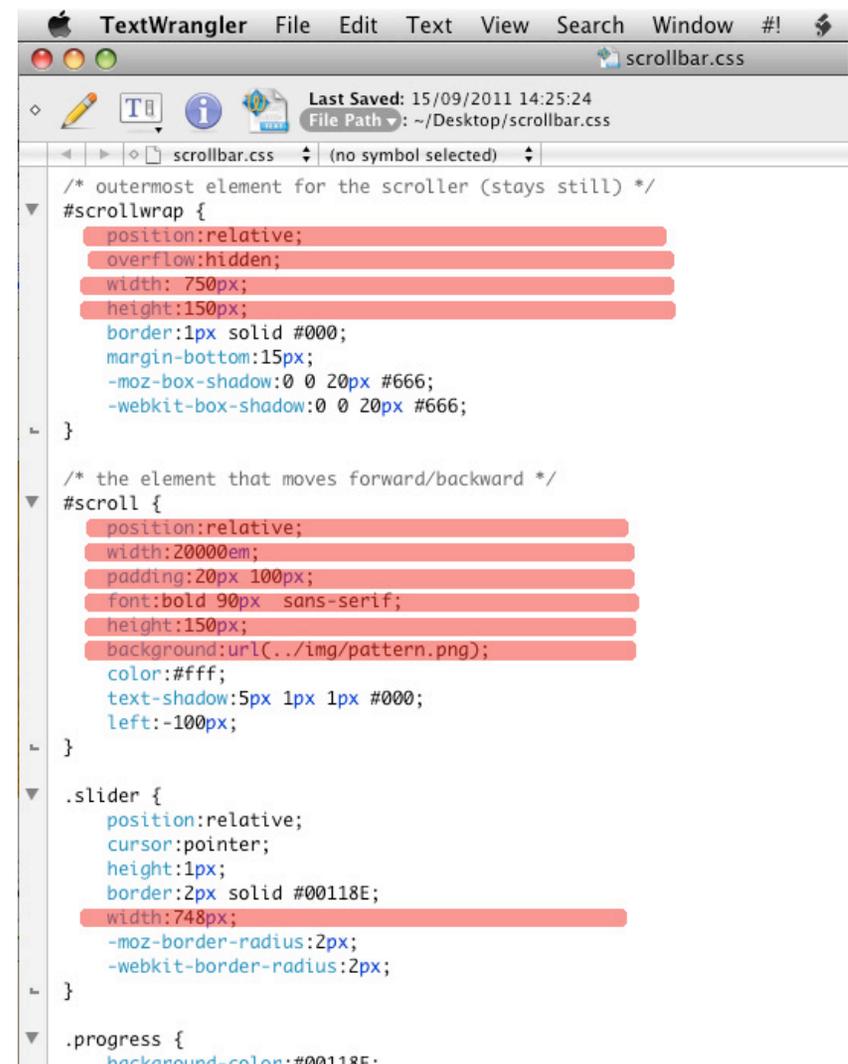
```
<!DOCTYPE html>
<html>
<!-- This is a jQuery Tools standalone demo. Feel free to copy/paste.
http://flowplayer.org/tools/demos/
Do *not* reference CSS files and images from flowplayer.org when in production
Enjoy! -->
<head>
<title>jQuery Tools standalone demo</title>
<!-- include the Tools -->
<script src="http://cdn.jquerytools.org/1.2.5/full/jquery.tools.min.js"></script>
<!-- standalone page styling (can be removed) -->
<link rel="stylesheet" type="text/css" href="http://static.flowplayer.org/tools/css/standalone.css"/>
<link rel="stylesheet" type="text/css" href="http://static.flowplayer.org/tools/demos/rangeinput/css/scrollbar.css"/>
</head>
<body>
<!-- our scrollable element -->
<div id="scrollwrap">
  <div id="scroll">
    jQuery TOOLS 1.2.5 Rangeinput. HTML5 ranges for humans.
  </div>
</div>
<!-- Rangeinput that controls the scroll -->
```

Editing the .css file

The scrollbar.css file contains many attributes which are not required – and it’s best to remove this code. The reason this code should be removed is because Freeway will use its own attributes for the items when the file is published, and some of it was specifically used to display the content of the scrolling area on the sample page. Note that many of these attributes can be edited to change the color of the slider button, the slider track, etc., but always make sure you work

on a copy of the original in case you need to revert to the original file.

Open the scrollbar.css file in TextWrangler and remove the attributes highlighted in red in the screenshot below and then save the file. Make sure you use this edited .css file later (rather than the original file you created in TextWrangler from the link in the source code page.



```
/* outermost element for the scroller (stays still) */
#scrollwrap {
  position:relative;
  overflow:hidden;
  width: 750px;
  height:150px;
  border:1px solid #000;
  margin-bottom:15px;
  -moz-box-shadow:0 0 20px #666;
  -webkit-box-shadow:0 0 20px #666;
}

/* the element that moves forward/backward */
#scroll {
  position:relative;
  width:2000em;
  padding:20px 100px;
  font:bold 90px sans-serif;
  height:150px;
  background:url(../img/pattern.png);
  color:#fff;
  text-shadow:5px 1px 1px #000;
  left:-100px;
}

.slider {
  position:relative;
  cursor:pointer;
  height:1px;
  border:2px solid #00118E;
  width:748px;
  -moz-border-radius:2px;
  -webkit-border-radius:2px;
}

.progress {
  background-color:#00118E
```

Setting up the items on your Freeway page

Below are the steps used to create the sample Freeway Pro file which you can download using the Download link below the end of this article.

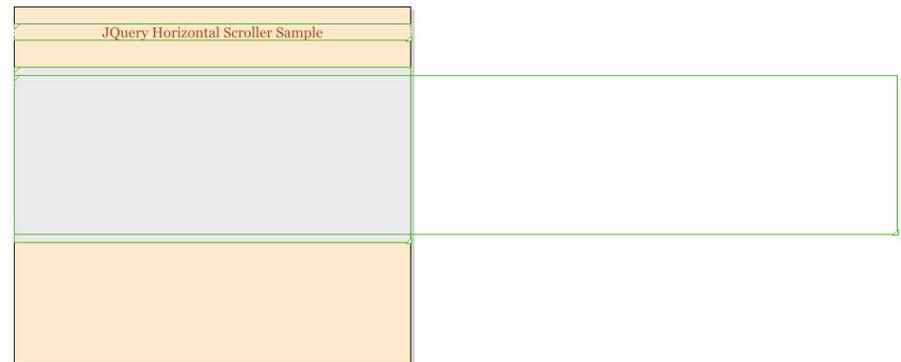
Launch Freeway, create a new file, make the page width 1000px and set the alignment of the page to Center. Next you need to make the pasteboard area around the Freeway page larger so that there is room to use a very wide “div” on the page to contain the scrolling content – to do this, go to **File>Document Setup**, enter **2000px** in the **Pasteboard width** field, and click **OK** to close the dialog. Because the “pasteboard” is square, this also gives it a height of 2000 pixels.

Give the page a background color with a **Hex** value of **FEEABE** and then switch on the **CSS Layout button** on Freeway’s toolbar (so it displays in blue). Draw a new **HTML** item near the top of the page, click inside it and type “jQuery Horizontal Scroller Sample” to use for a heading. Select the text, use **Georgia** for the font, **36px** for the size, align it **Center** and give it a **Hex** color value of **993300**. Select the item and enter a **Left Inset** value of **0px**, a **Top Inset** value of **45px**, a **Width** of **1000px** and a **Height** of **41px**. Type a **Return** or **Tab** after entering the final value in the Inspector, click inside the Inspector’s **Title** field and give it a name of “header” (without the quotes).

Draw a new **HTML** item on the page, give it a **Width** of **1000px** and a **Height** of **440px**, then position it with a **Left Inset** of zero and a **Top Inset** of **154px**. Give this item a background color of **E6E6E6**, then click on the Inspector’s **Overflow** popup and choose **Hidden**. Click inside the Inspector’s **Title** field and give it the name of “scrollwrap” (without the quotes) – note that it is very important to use exactly the same name as the items in the example on the

web page because the code explicitly targets an item by using its name.

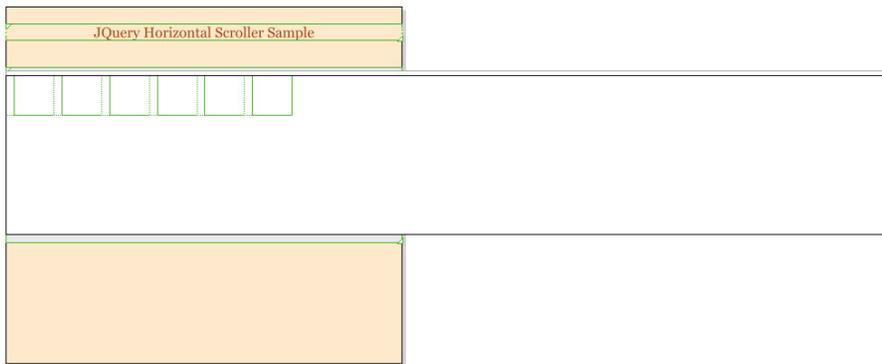
Draw a new **HTML** item by drawing on top of the scrollwrap item. Because this is drawn on top of the scrollwrap item, this will make the new item a child item of the scrollwrap item. With the child item selected, enter **2224px** for **Width**, **401px** for **Height**, **0px** for **Left Inset** and **20px** for **Top Inset**, then click on the Inspector’s **Overflow** popup and choose **Hidden**. Finally, give the item a **Title** of “scroll” in the Inspector. If you zoom out in Freeway you will see that the scroll item is much wider than its scrollwrap parent and it is poking out far to the right of the page– this may look odd, but this is how it needs to be.



With the scroll item created, the scrolling content can now be nested inside this item. There are different ways to do this, but I used the graphic items as “inline” items as this makes it more reliable and easy to achieve the same spacing between each item. Double-click on the scroll item (so you see the flashing text cursor in the top left corner of the item) and go to **Insert>Graphic item**. This will place an item 100px square inside the scroll item. With the item selected, choose **Left** in the Inspector’s **Align** popup, choose **Custom**

in the **Margin** popup, enter **20px** for **Left** and **0px** for **Top**, **Right** and **Bottom** then click **OK**.

With the inline item still selected, copy it (Command-c) then either double-click to the right of the item or use the Right Arrow key on your keyboard to move the flashing text cursor to the right of the item. Now paste the item in five times so that you have a row of six items aligned left within the scroll item.



When you click on the Download link below this article you can get a Zip archive which contains an “archive” of the Freeway file (which was created using the steps here) along with a folder called “media for jquery sample”. This latter folder contains six images which have been scaled and optimized in Photoshop so they are all 400px high. You can now import these images in number order into each of the inline items as “Pass-through” images. A Pass-through image is a special type of image which Freeway will not optimize further when the file is published – but you need to be aware that pass-throughs cannot be cropped and scaled, so this needs to be done beforehand. Select the left-hand inline item and go to **File>Import**, select the graphic starting with “01”, check the **Pass-through** option checkbox and click

Open. Because a Pass-through image cannot be cropped, you will see that a large “X” appears inside the item (this is because the item is “overflowing”) – go to **Item>Fit Box to Content** to make the graphic appear. Repeat this for images 2 to 6.



Note that items which are entirely off to the right side of the Freeway page area will display in the Site Panel with an “X” through the item’s icon – this is normal, and it is simply telling you that the item is on the pasteboard area and not on the page.

The final item on the Freeway page is what will display as the slider to scroll the content of the scroll item within the scrollwrap window and this item needs to be a “markup item”. First we need to get the code that will be used in the item, so go back to the page you bookmarked earlier and copy the part of the code which reads:

```
<!-- rangeinput that controls the scroll -->  
<input type="range" max="2600" step="10" />
```

Go back to your Freeway page, go to **Insert>Markup item**, paste the code inside the **HTML Markup** window

and click **OK**. This will place an item on your page with <H> in the top left corner (which signifies that it's a markup item). With the item selected, use the values of **Width = 748px**, **Height = 40px**, **Left Inset = 123px**, and **Top Inset = 636px**. Finally, enter "slider" (without the quotes) in the Inspector's **Title** field.

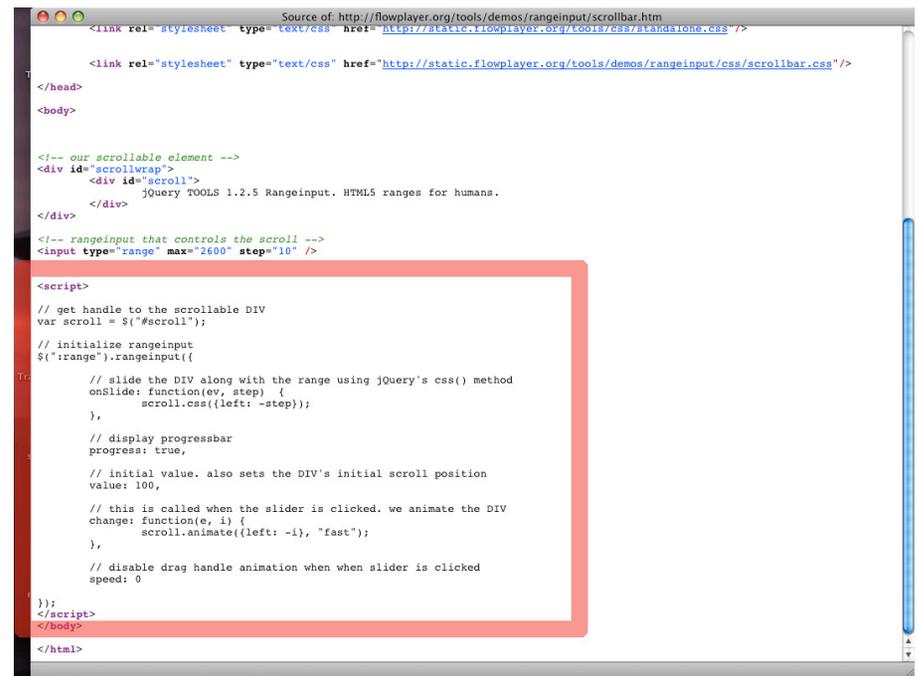
The code you pasted into the markup item needs to be edited – this is because "max" value is the value used specifically for the horizontal scroller on the sample web page. The "max" value needs to be calculated then entered for each different scroller, and for this the formula is the width of scroll item minus the width of the scrollwrap item. In this case, the scroll item is 2224px and the scrollwrap item is 1000px – so the value that needs to be used is 1224px. Double-click on the markup item to display the HTML Markup dialog again, then change **2600** to **1224** in the code and click **OK**.

The "step" value controls the smoothness of the scroll for the items in the scroll window. You should leave this as 10.

Using HTML Markup in the Freeway file's body tag

The Freeway page needs to use a "script" that you can get from the web page you bookmarked earlier, so view the source code of the page again at <http://flowplayer.org/tools/demos/rangeinput/scrollbar.htm> and copy the code highlighted in the screenshot below (ie, the code starting with <script> and ending with </script>). Go to your Freeway page, go to **Page>HTML Markup**, choose **Before </body>** in the **Insert** popup, paste the code into the main panel and click **OK**.

Do not edit the code, as it is fine as it appears in the source code of the web page. You can now close the source code window as you won't need the page any more.



```
Source of: http://flowplayer.org/tools/demos/rangeinput/scrollbar.htm
<link rel="stylesheet" type="text/css" href="http://static.flowplayer.org/tools/css/standalone.css"/>
</head>
<body>
<!-- our scrollable element -->
<div id="scrollwrap">
  <div id="scroll">
    jQuery TOOLS 1.2.5 Rangeinput. HTML5 ranges for humans.
  </div>
</div>
<!-- rangeinput that controls the scroll -->
<input type="range" max="2600" step="10" />
<script>
// get handle to the scrollable DIV
var scroll = $("#scroll");
// initialize rangeinput
$( "#range" ).rangeinput({
  // slide the DIV along with the range using jQuery's css() method
  onSlide: function( ev, step ) {
    scroll.css( { left: -step } );
  },
  // display progressbar
  progress: true,
  // initial value, also sets the DIV's initial scroll position
  value: 100,
  // this is called when the slider is clicked. we animate the DIV
  change: function( e, i ) {
    scroll.animate( { left: -i }, "fast" );
  },
  // disable drag handle animation when when slider is clicked
  speed: 0
});
</script>
</body>
</html>
```

Referencing the external .css and .js files

The final part of the procedure is to make sure that the "scrollbar.css" and "jquery.tools.min.js" files you saved earlier can be found and used by the page when the Freeway file is published. If the file cannot find these files, the functionality will not work. There are a few different ways to do this, but the simplest method is to use two Freeway Actions that you can download free from ActionsForge. Using these Actions will mean that you won't need to manually upload the files to the web server and it also means that Freeway will place the files in their correct location for you.

Visit the pages at <http://www.actionsforge.com/actions/view/23-ess-use-external-style-sheet> and <http://www.actionsforge.com/actions/view/46-external-javascript> and

download then install both Actions. Make sure nothing is selected on your Freeway page then go to **Page>Page Actions** and choose **ESS-Use External Stylesheet**. Open the Actions palette, switch off the **Delete Embedded Styles** and **Use Site Pages As Stylesheets** options then click on the top **CSS:** popup on the right and select the file you saved earlier called “scrollbar.css”. Finally, go to **Page>Page Actions** and choose **External Javascript**, then in the Actions palette click on the **File 1** popup, select the file called “jquery.tools.min.js” you saved earlier.

You can now preview the file in a browser to test that everything works (because you are using the Actions you won't need to upload the files to test it). When Freeway publishes the code, it will move the .css and .js files into the correct location within your Site Folder and you should be able to see it all working. As mentioned earlier, the benefit of using the ESS Actions is that these files will also be uploaded into the correct location on your web server when you upload the rest of your files.

Important points to note

Just as with all scrolling content used on a web page, this horizontal scrolling method will not work when viewed on an iPhone or iPad. This is because scrolling areas can only be scrolled by using two fingers together on the touch screen. Because the scroller button is too small, the functionality will not work.

Another important point is to be aware that some additional functionality often used in Freeway will not be compatible if used on the same page – and this is because you will be mixing and matching different Javascript libraries. An example of this is if you want to click on the scrolling images to view a large image in a “lightbox” effect using an Action such as the ScriptyLightbox2 Action. Because Scripty Actions use the Scriptaculous Javascript library – and this conflicts with functionality created by using jQuery Library effects. It may be possible to “de-bug” such conflicts, but that can often only be done after a major rewrite of the jquery.tools.min.js file.