

# JavaScript Workshop

---

December 2007 Meeting

Script.aculo.us Library Basics

# Script.aculo.us Library

- JavaScript library written by Thomas Fuchs. This library is built on top of the Prototype library. Meaning: it uses the core framework to construct its own functions.
- Just like Prototype, it is used by commercial websites such as Gucci, Apple, Digg, Feedburner and [many more](#). Its purpose is for visual effects, animation, drag and drop, and interface elements.
- Consists of:

**scriptaculous.js (loader)**

slider.js (slider element)

effects.js (visual effects)




dragdrop.js (drag and drop)

builder.js (DOM manipulation)

controls.js (Ajax elements)

# Getting started

- Download the latest version: <http://script.aculo.us/downloads>
- The .zip will contain the following structure:

Name	Type
 lib	File Folder
 src	File Folder
 test	File Folder

[lib folder](#) contains prototype.js

[src folder](#) contains all the files (previous slide)

[test folder](#) contains functionality example

- Documentation: <http://wiki.script.aculo.us/scriptaculous/>

# Using the library

- Unlike Prototype, the Scriptaculous library uses multiple files. The scriptaculous.js file loads all the other files that are in the [same directory](#).
- Depending on your requirement, not all of the associated files are needed. Alternatively, you can load the file(s) you want to reduce the download footprint of your web page.
- Via a query parameter of builder, effects, dragdrop, controls or slider, you can specify which library to load.

Required:

```
<script src="prototype.js" type="text/javascript"></script>
```

Load only effects library (effects.js):

```
<script src = "scriptaculous.js?load=effects"></script>
```

# Types of effects

- Core Effects: Consist of basic animation

Opacity, Highlight, Scale, MoveBy, Parallel

- Combination effects: More complex effects

Appear, Fade, Puff, DropOut, Shake, SwitchOff, BlindUp, BlindDown, SlideUp, SlideDown, Pulsate, Squish, Fold, Grow, Shrink

- To see a demo of all effects go to the [demo](#) page or look in the [test\functional folder](#) when you unzip scriptaculous.zip.

# Creating an effect

- Opacity:

```
new Effect.Opacity('opacity', {duration:6, from:0.0, to:10.0});  
<p id = "opacity">This will suddenly fade!</p>
```

- Scale:

```
new Effect.Scale('scale', 50, {scaleContent:true});  
<div id = "scale">I am going to get smaller!!!</div>
```

- Highlight:

```
new Effect.Highlight('highlight', {duration:6});  
<div id = "scale">I am going to highlight!</div>
```

# Dragging and dropping things

- There are two major elements with drag and drop: the items to be dragged (the draggable) and the item onto which the draggable will be dropped (the droppable). Without outside intervention, once a user interface element on a web page is displayed, it pretty much fixed in place.
- The Scriptaculous [Draggable class](#) uses the powers of JavaScript, CSS and HTML to provide an easy way to add this behavior to an element.
- Converting an element from a “normal” element into a draggable one is as simple as creating an instance of the Draggable class, and identifying the element to be made draggable:

```
new Draggable (element, options);
```

# Draggable class options

- There are a number of interaction types for which we want to apply dragging behavior and the behavior we want the draggable elements to exhibit:

**revert** – element “revert” back to original position

**constraint** – movement on axis of element

**zindex** – specify a stacking order for element

**ghosting** – original element is shown during drag

**change** – invoked during the drag

**starteffect** – effect started during drag

**endeffect** – ending effect at drag

```
new Draggable ('identifier', {revert:true, constraint: 'vertical'});
```

# Next meeting: jQuery Library Basics

- JavaScript Workshop website:  
<http://www.javascriptworkshop.com>
- Any questions?  
[frank@javascriptworkshop.com](mailto:frank@javascriptworkshop.com) - Frank Stepanski