

## jQueryUI and CSS3 Animation

## jQueryUI

- jQuery Plugin
- <http://jqueryui.com/download/>
- Components
  - Effects
  - Interactions: Functional scripts that help with a task
  - Widgets: Self-contained components

2

## Effects

- `$(selector).effect( effect [, options ] [, duration ] [, complete ] )`
  - Apply an animation effect to an element.
- `$(selector).show( effect [, options ] [, duration ] [, complete ] )`
  - Display the matched elements, using custom effects.
- `$(selector).hide( effect [, options ] [, duration ] [, complete ] )`
  - Hide the matched elements, using custom effects.
- `$(selector).toggle( effect [, options ] [, duration ] [, complete ] )`
  - Display or hide the matched elements, using custom effects.
- Effects: blind, bounce, clip, drop, explode, fade, fold, highlight, puff, pulsate, scale, shake, size, slide, transfer

## Animate

- Perform a custom animation of a set of CSS properties.
- `$(selector).animate( properties [, duration] [, easing] [, complete] )`

## Interactions

- A set of mouse-based interactions as building blocks for rich interfaces and complex widgets.
- Interactions: draggable, droppable, resizable, selectable

## Widgets

## CSS3 Animations

- Animate transitions from one CSS style configuration to another.
- Two components:
  - A style describing the CSS animation
    - animation-delay, animation-direction, animation-duration, animation-iteration-count, animation-name, animation-play-state, animation-timing-function, animation-fill-mode
  - Set of keyframes
    - waypoints along the animation

## transform

- Modify the coordinate space of the CSS visual formatting model.
- Elements can be translated, rotated, scaled, and skewed

```

1<!doctype html>
2<html lang="en">
3<head>
4  <meta charset="utf-8">
5  <title>explode demo</title>
6  <link rel="stylesheet" href="http://code.jquery.com/ui/1.9.1/themes/base/jquery-ui.css">
7  <style>
8
9  .outer {
10    margin: 10px;
11    width: 125px;
12    height: 150px;
13    background: lightgray;
14  }
15
16  .inner {
17    margin: 10px;
18    width: 100px;
19    height: 100px;
20    background: lightblue;
21  }
22
23
24</style>
25<script src="http://code.jquery.com/jquery-1.8.2.js"></script>
26<script src="http://code.jquery.com/ui/1.9.1/jquery-ui.js"></script>
27<script>
28  $(function(){
29    $('#bbounceE').click(function(){
30      $('#bounce').effect("bounce");
31    });
32    $('#bbounceS').click(function(){
33      $('#bounce').show("bounce");
34    });
35    $('#bbounceH').click(function(){
36      $('#bounce').hide("bounce");
37    });
38    $('#bbounceT').click(function(){
39      $('#bounce').toggle("bounce");
40    });
41
42    $('#bexplodeN').click(function(){
43      $('#explode').toggle("explode", "normal");
44    });
45
46    $('#bexplodeS').click(function(){
47      $('#explode').toggle("explode", "slow");
48    });
49
50    $('#bexplodeF').click(function(){
51      $('#explode').toggle("explode", "fast");
52    });
53
54    $('#bexplodeC').click(function(){
55      $('#explode').toggle("explode", 4000);
56    });
57
58
59    $('#bdrop').click(function(){
60      $('#drop').toggle("drop");
61    });
62    $('#bfade').click(function(){
63      $('#fade').toggle("fade");
64    });
65    $('#bfold').click(function(){
66      $('#fold').toggle("fold");
67    });
68    $('#bpuff').click(function(){
69      $('#puff').toggle("puff");
70    });
71    $('#bpulsate').click(function(){
72      $('#pulsate').toggle("pulsate");
73    });
74    $('#bshake').click(function(){
75      $('#shake').toggle("shake");
76    });
77    $('#bsize').click(function(){
78      $('#size').toggle("size", {
79        to: { width: 200, height: 60 }
80      });
81    });
82  });
83</script>
84
85</head>
86<body>
87
88<p>Click on a box to trigger an effect.</p>
89<div class='outer' style='width: 230px'>
90  <button id='bbounceE'>effect</button>
91  <button id='bbounceS'>show</button>
92  <button id='bbounceH'>hide</button>
93  <button id='bbounceT'>toggle</button>
94  <div class='inner' id="bounce">bounce</div>
95</div>
96
97<div class='outer' style='width: 230px'>
98  <button id='bexplodeN'>normal</button>

```

```
99     <button id='bexplodeS'>slow</button>
100   <button id='bexplodeF'>fast</button>
101   <button id='bexplodeC'>4 sec</button>
102   <div class='inner' id="explode">explode</div>
103 </div>
104
105 <div class='outer'>
106   <button id='bfade'>fade</button>
107   <div class='inner' id="fade">fade</div>
108 </div>
109
110 <div class='outer'>
111   <button id='bdrop'>drop</button>
112   <div class='inner' id="drop">drop</div>
113 </div>
114
115 <div class='outer'>
116   <button id='bfold'>fold</button>
117   <div class='inner' id="fold">fold</div>
118 </div>
119
120 <div class='outer'>
121   <button id='bpuff'>puff</button>
122   <div class='inner' id="puff">puff</div>
123 </div>
124
125 <div class='outer'>
126   <button id='bpulsate'>pulsate</button>
127   <div class='inner' id="pulsate">pulsate</div>
128 </div>
129
130 <div class='outer'>
131   <button id='bshake'>shake</button>
132   <div class='inner' id="shake">shake</div>
133 </div>
134
135 <div class='outer'>
136   <button id='bsize'>size</button>
137   <div class='inner' id="size">size</div>
138 </div>
139
140
141 </body>
142 </html>
```

```
1<!DOCTYPE html>
2<html>
3  <head>
4    <style type="text/css">
5      img#alien {
6        position: relative;
7        left:0;
8        background-color:blue;
9      }
10   </style>
11   <script src="http://code.jquery.com/jquery-1.7.1.min.js"></script>
12   <script type="text/javascript">
13     $(function(){
14       var winWidth = $( document ).width();
15       var duration = 1000;
16
17       $( document ).click( function( event ){
18
19
20
21
22
23
24       });
25     });
26   </script>
27 </head>
28 <body>
29   
30 </body>
31</html>
32
33
```

```

1<!DOCTYPE html>
2<html>
3  <head>
4    <style type="text/css">
5
6      div#spaceShip {
7        position: absolute;
8        left: 0;
9        top: 80%;
10       background: blue;
11       width: 100px;
12       height: 100px;
13     }
14
15     img#invader {
16       position: absolute;
17       left: 25%;
18       top: 10%;
19     }
20
21     div#laser {
22       position: absolute;
23       display: none;
24       left: 0;
25       top: 0;
26       width: 10px;
27       height: 70px;
28       background-color: red;
29     }
30   </style>
31   <script src="http://code.jquery.com/jquery-1.7.1.min.js"></script>
32   <script type="text/javascript">
33     $(function(){
34       var winWidth = $( document ).width();
35       var duration = 1000;
36
37       $( document ).keydown( function( event ){
38         var keyCode = event.keyCode || event.which;
39         var keyMap = { left: 37, up: 38, right: 39, down: 40 };
40
41         switch ( keyCode ) {
42           case keyMap.left:
43             $( "#spaceShip" ).animate({
44               left: '-=50'
45             }, 200 );
46             break;
47
48           case keyMap.up:
49             var ufoLeft = $( "#spaceShip" ).offset().left;
50             var ufoTop = $( "#spaceShip" ).offset().top;
51             $( "#laser" ).offset( {left:ufoLeft+87, top:(ufoTop-30)} );
52             $( "#laser" ).css( "display", "block" )
53               .animate( {top:10}, 800, function(){
54
55
56
57
58
59
60
61
62
63
64
65
66
67               });
68             break;
69
70           case keyMap.right:
71             $( "#spaceShip" ).animate({
72               left: '+=50'
73             }, 200 );
74             break;
75         }
76       });
77     });
78   </script>
79 </head>
80 <body>
81   <div id="spaceShip" ></div>
82   
83   <div id="laser"></div>
84 </body>
85 </html>
86
87

```

```
1<!doctype html>
2<html lang="en">
3<head>
4  <meta charset="utf-8">
5  <title>CSS3 Animation</title>
6  <style>
7    h1 {
8      animation-duration: 3s;
9      animation-name: slidein;
10     animation-direction: alternate;
11     animation-iteration-count: infinite;
12   }
13
14   @keyframes slidein {
15     from {
16       margin-left: 100%;
17       width: 100%
18     }
19
20     to {
21       margin-left: 0%;
22       width: 100%;
23     }
24   }
25 </style>
26</head>
27<body>
28
29 <h1>Sliding Text</h1>
30</body>
31</html>
```

```
1<!doctype html>
2<html lang="en">
3<head>
4  <meta charset="utf-8">
5  <title>sortable demo</title>
6  <link rel="stylesheet" href="http://code.jquery.com/ui/1.9.1/themes/base/jquery-ui.css">
7  <script src="http://code.jquery.com/jquery-1.8.2.js"></script>
8  <script src="http://code.jquery.com/ui/1.9.1/jquery-ui.js"></script>
9  <script>
10    $(function(){
11      $("#sortable").sortable();
12      $("#alsosortable").sortable();
13    });
14  </script>
15</head>
16<body>
17
18<ul id="sortable">
19  <li>Item 1</li>
20  <li>Item 2</li>
21  <li>Item 3
22    <ul id="alsosortable">
23      <li>Item 3.1</li>
24      <li>Item 3.2</li>
25      <li>Item 3.3</li>
26    </ul>
27  </li>
28
29  <li>Item 4</li>
30  <li>Item 5</li>
31</ul>
32
33
34</body>
35</html>
```



```
1<!doctype html>
2<html lang="en">
3<head>
4  <meta charset="utf-8">
5  <title>droppable demo</title>
6  <link rel="stylesheet" href="http://code.jquery.com/ui/1.9.1/themes/base/jquery-ui.css">
7  <style>
8    #draggable {
9      width: 100px;
10     height: 100px;
11     background: #ccc;
12   }
13   #droppable {
14     position: absolute;
15     left: 250px;
16     top: 0;
17     width: 125px;
18     height: 125px;
19     background: #999;
20     color: #fff;
21     padding: 10px;
22   }
23 </style>
24 <script src="http://code.jquery.com/jquery-1.8.2.js"></script>
25 <script src="http://code.jquery.com/ui/1.9.1/jquery-ui.js"></script>
26</head>
27<body>
28
29<div id="droppable">Drop here</div>
30<div id="draggable">Drag me</div>
31
32<script>
33$( "#draggable" ).draggable();
34$( "#droppable" ).droppable({
35  drop: function() {
36    alert( "dropped" );
37  }
38});
39</script>
40
41</body>
42</html>
```

```
1<!doctype html>
2<html lang="en">
3<head>
4  <meta charset="utf-8">
5  <title>droppable demo</title>
6  <link rel="stylesheet" href="http://code.jquery.com/ui/1.9.1/themes/base/jquery-ui.css">
7  <style>
8    #draggable {
9      width: 100px;
10     height: 100px;
11     background: #ccc;
12   }
13   #droppable {
14     position: absolute;
15     left: 250px;
16     top: 0;
17     width: 125px;
18     height: 125px;
19     background: #999;
20     color: #fff;
21     padding: 10px;
22   }
23 </style>
24 <script src="http://code.jquery.com/jquery-1.8.2.js"></script>
25 <script src="http://code.jquery.com/ui/1.9.1/jquery-ui.js"></script>
26</head>
27<body>
28
29<div id="droppable">Drop here</div>
30<div id="draggable">Drag me</div>
31
32<script>
33$( "#draggable" ).draggable();
34$( "#droppable" ).droppable({
35  drop: function() {
36    alert( "dropped" );
37  }
38});
39</script>
40
41</body>
42</html>
```

```

1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
6 <title>Insert title here</title>
7   <link rel="stylesheet" href="css/redmond/jquery-ui-1.9.1.custom.css">
8
9   <script src="js/jquery-1.8.2.js"> </script>
10  <script src="js/jquery-ui-1.9.1.custom.js"></script>
11  <script>
12      $(function() {
13          //$( "#accordion" ).accordion({ icons: { "header": "ui-icon-plus", "headerSelected": "ui-
icon-minus" } });
14          $('#accordion').accordion();
15      });
16  </script>
17 </head>
18 <body>
19   <div id="accordion">
20     <h3>First header</h3>
21     <div>First content panel</div>
22     <h3>Second header</h3>
23     <div>Second content panel</div>
24   </div>
25 </body>
26 </html>

```