

jQuery

Write Less, Do More

Web Interaction & Animation Web Design & Development Bachelor of Science Degree

Web Interaction SAnimation



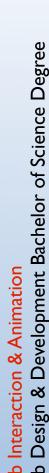


jQuery Basics

Where do we begin?

- jQuery is a JavaScript Library
 - Collection of JavaScript functions
 - Select DOM elements & manipulate them
 - Works in all modern browsers
 - There are a ton of plugins for it







Animation: CSS3 vs. jQuery

Either or, or both?

- Syntax and approach differs, results can be similar
 - CSS uses keyframes
 - jQuery does not (but there are plugins)
- CSS is generally smoother, but its not as compatible
- jQuery can respond to events, CSS cannot!
 - You can trigger CSS animation from jQuery
- jQuery can be extended easily by plugins
- We will be looking at CSS later in this course





jQuery

How do we get it to work?

- click
 - Happens when something is clicked
- .hover
 - Triggered when something is moused over







jQueryCore Transitions

- Show & Hide
 - By themselves not really animation
 - Left blank, happens instantly
 - Add a duration and BAM!
 - Uses milliseconds or strings
 - 2000ms = 2 seconds
 - 500ms = .5 second
 - 'fast', 'slow', 'normal'
- Toggle() will switch between the two







jQuery Show & Hide

| FUNCTION | PURPOSE |
|------------------------|--|
| show() | Displays each of the set of matched elements, if they are hidden |
| show(speed, callback) | Shows all matched elements using a graceful animation. Fires an optional callback after completion |
| hide() | Hides each of the set of matched elements if they are shown |
| hide(speed, callback) | Hides all matched elements using graceful animation. Fires an optional callback after completion |
| toggle() | Toggles displaying each of the set of matched elements |
| toggle(switch) | Toggles displaying each of the set of matched elements based upon the switch (true shows all elements, false hides all elements) |
| toggle(speed,callback) | Toggles displaying each of the set of matched elements using a graceful animation and firing an optional callback after completion |

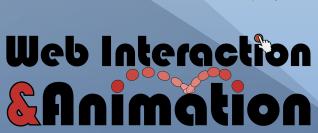




Show...

...the example

Code Time





jQuery Fades

- fadeln or fadeOut
 - Animates a fade in or fade out of an object
 - Uses milliseconds or strings
- fadeTo
 - Can set desired opacity level, 0.0 -> 1.0

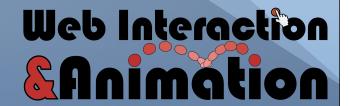




Fades

Functions

| | FUNCTION | PURPOSE |
|--|----------------------------------|--|
| | fadeln(speed, callback) | Fades in all matched elements by adjusting their opacity and firing an optional callback after completion |
| | fadeOut(speed, callback) | Fades out all matched elements by adjusting their opacity to 0 and then setting display to "none" and firing an optional callback after completion |
| | fadeTo(speed, opacity, callback) | Fades the opacity of all matched elements to a specified opacity and fires an optional callback after completion |





jQuery Fades

• Example Time





jQuery Slides

- slideUp or slideDown
 - Animates a sliding transition, not used for moving around the screen
 - Uses milliseconds or strings
 - slideUp makes something disappear
- slideToggle
 - Toggles between the two

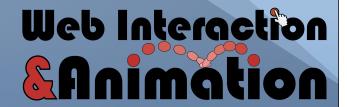




Slides

Functions

| FUNCTION | PURPOSE |
|------------------------------|---|
| slideDown(speed, callback) | Reveals all matched elements by adjusting their height and firing an optional callback after completion |
| slideUp(speed, callback) | Hides all matched elements by adjusting their height and firing an optional callback after completion |
| SlideToggle(speed, callback) | Toggles the visibility of all matched elements by adjusting their height and firing an optional callback after completion |





Slides

Examples

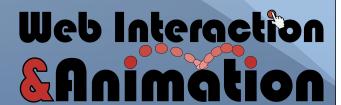
• Examples





jQuery Animate

- .animate()
 - Can animate any CSS property
 - Takes an object as the argument
 - Default time of 400ms
 - Can not animate color

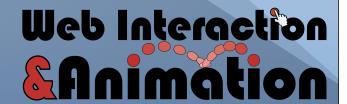




Animate

Function

| FUNCTION | PURPOSE |
|--|--|
| animate(params, duration, easing, callback) | Creates a custom animation params: The properties on the elements to animate duration: The number of milliseconds the animation should take easing: The type of easing function to use (linear or swing) callback: The function to call when the animation is complete |
| animate(params, options) | Creates a custom animation params: The properties to animate options: Set of options for the animation to take |
| stop() | Stops all the currently running animations on all the specified elements |





Animate

Example

Example Time





Easing

- Easing is a mathematical function that determines how the animation progresses from beginning to end.
 - Controls how fast it is at certain parts and how slow it is at other parts. The way we work with these is calling them by name, by a string. 2 built in.
 - 'swing' default value
 - Your animation starts and it kind of speeds up and then slows down toward the end.
 - 'linear'
 - The animation the speed does not change. It just proceeds without changing the whole way over.





Easing

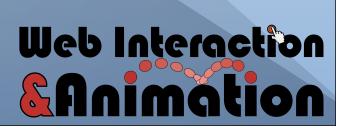
- There are a ton of other easing, but you need a plugin
- jQuery Easing tiny
 - http://gsgd.co.uk/sandbox/jquery/easing/
- jQuery UI bigger, but does more!
 - http://api.jqueryui.com/easings/
- Easings.net good visuals Good for CSS
 - http://easings.net/#
- Watch out for extremes!





Easing *Example*

Example Time





Remove the animation when done?

```
$img.animate({
    'width' : '30px'(could also use %)
    'margin-left': +=50px
}. 2000, 'swing', function() {
$(this).remove();
});
```





Remove, but fade out

Add the opacity

```
$img.animate({
    'width' : '30px'(could also use %)
    'margin-left': +=50px,
    opacity: 0
}. 2000, 'swing', function() {
$(this).remove();
});
```





Removing Animation

Code

Example Time

