

jQuery • Cross-browser JavaScript library • Created by John Resig in 2006 Compact and CSS3-compliant • Free, open-source, and dual-licensed • MIT license and GNU general public license v2 Abstracts browser differences Do more with less code • Most popular JavaScript library on the planet http://jquery.com/ NOW

jQuery Features

2

- · Simplified DOM navigation
- Simplified DOM and CSS manipulation
- Utility methods and properties
- Enhanced DOM event handling
- · Effects and animations
- Simplified AJAX
- · Extensibility through plugins

NOW

4

6

## Why jQuery?

3

- Because you'll write a lot less code
- Because your code will work in a lot more places
  - Let jQuery handle differences between browsers
- Because jQuery brings the power of CSS3 selectors to browsers that don't support CSS3
  - Delegates to browser when CSS3 is supported
  - Does the work itself when it's not
- Because jQuery add-ons such as jQuery Mobile and jQuery UI make jQuery even better

NOW

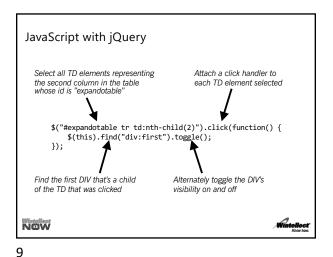
```
JavaScript without jQuery
// Works in IE9+ and most non-IE browsers
 var table = document.getElementById("expandotable");
 for (var i = 0; i < table.rows.length; i++) {
   table.rows[i].cells[1].addEventListener("click", onClick,</pre>
            false);
 function onClick(event) {
      var row = event.target;
var div = row.getElementsByTagName("div")[0];
      var style = window.getComputedStyle(div,
    null).getPropertyValue("display");
div.style.display = (style == "none") ? "block" : "none";
NOW
```

5

```
JavaScript without jQuery, Cont.
// Works in older versions of IE (e.g., 6, 7, and 8)
var table = document.getElementById("expandotable");
for (var i = 0; i < table.rows.length; i++) {
   table.rows[i].cells[1].attachEvent("onclick", onClick);</pre>
}
function \ on Click() \ \{
       var row = window.event.srcElement;
       var div = row.getflementsByTagName("div")[0];
var style = div.currentStyle["display"];
div.style.display = (style == "none") ? "block" : "none";
NOW
```

Making It Browser-Neutral var table = document.getElementById("expandotable"); for (var i = 0; i < table.rows.length; i++) {
 if (window.addEventListener)
 table.rows[i].cells[i].addEventListener("click", onClick, false);</pre> else
table.rows[i].cells[1].attachEvent("onclick", onClick); function onClick(event) {
 if (levent)
 event = window.event;
 var row = (event.target) ? event.target : event.srcElement;
 var div = row.getElementsByTagName("div")[0];
 var style; vai style,
if (window.getComputedStyle)
 style = window.getComputedStyle(div, null).getPropertyValue("display");
else style = div.currentStyle["display"];
div.style.display = (style == "none") ? "block" : "none"; NOW

7



• Script file containing jQuery code • Download private copy from URL below Or load from jQuery CDN, Microsoft CDN, or Google CDN so file can be shared through browser cache • Library forked for optimization Version 1.x supports IE6 and higher (latest is 1.10.2) • Version 2.x supports IE9 and higher (latest is 2.0.3) • Minified version approx. 32K after GZIPping

http://docs.jquery.com/Downloading\_jQuery

NOW

10

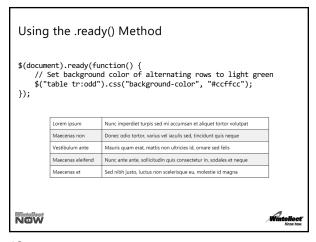
8

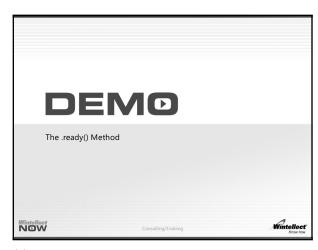
jquery.[min.]js

```
Loading jQuery
// Load private copy from your own site
<script src="jquery-1.8.3.min.js"></script>
// Load shared copy from jQuery CDN
<script src="http://code.jquery.com/jquery-1.8.3.min.js">
</script>
// Load shared copy from Microsoft CDN
 <script src="http://ajax.microsoft.com/ajax/jQuery/jquery-1.8.3.min.js">
// Load shared copy from Google CDN
  src="http://ajax.googleapis.com/ajax/libs/jquery/1.8.3/jquery.min.js">
</script>
NOW
```

The .ready() Method • Invokes callback function ("ready handler") when DOM is loaded but before images are loaded // Formal syntax \$(document).ready(function() { // Code to execute when DOM is ready // Shorthand form \$(function() { // Code to execute when DOM is ready }); NOW

11 12





13 14

The jQuery() Function

• Global function at heart of jQuery library
• Aliased with \$ symbol - jQuery("div") == \$("div")

• Callable in four ways
• Input a selector string
• Input an object reference
• Input an HTML string
• Input a callback function

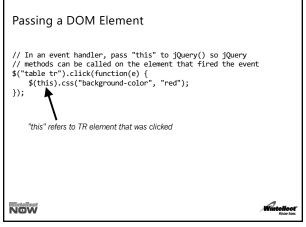
• Also contains utility methods and properties

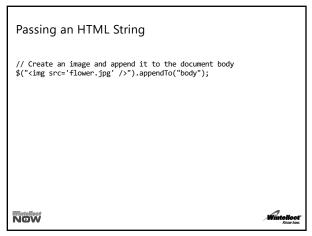
Passing a Selector

// Set background color of alternating table rows to light green
\$("table tr:odd").css("background-color", "#ccffcc");

16

15





## Passing a Callback Method \$(function() { // Set background color of alternating rows to light green \$("table tr:odd").css("background-color", "#ccffcc"); });

Selectors

- jQuery() function supports a rich selector syntax
  - Accepts a CSS-style selector string
  - Returns jQuery object wrapping the selected elements
    - Also known as a "wrapped set"
    - jQuery() function != jQuery object
- Supports most CSS1, CSS2, and CSS3 selectors
  - Even in browsers that don't support CSS3
- Adds a few selectors of its own

http://api.jquery.com/category/selectors/

NOW

20

```
Simple Selectors

// Select all <div> elements in the document
var results = $("div");

// Select the element whose id is "output"
var results = $("#output");

// Select all elements assigned the CSS class named "shaded"
var results = $(".shaded");

// Select all <div> elements assigned the CSS class "shaded"
var results = $("div.shaded");

// Select all <h1>, <h2>, and <h3> elements
var results = $("h1, h2, h3");
NOW
```

**Selector Combinations** 

```
// Select all <a> elements that are descendants of <div>s
var results = $("div a");

// Select all <a> elements that are direct children of <div>s
var results = $("div > a");

// Select all <a> elements that occur immediately after <div>s
var results = $("div + a");

// Select all sibling <a> that occur immediately after <div>s
var results = $("div ~ a");

// Select all s that occur immediately after <a> in <div>s
var results = $("div a + p");

**Monthselect**
```

NOW

22

21

19

```
Attribute Selectors
   Selector
                                                 Description
   [attr]
                    Selects elements with an attr attribute
   [attr=val]
                     Selects elements with an attr attribute whose value is val
                     Selects elements with an attr attribute whose value is a space-separated
   [attr~=val]
                    list of words, one of which is val
                     Selects elements with an attr attribute whose value is val or begins with val and is immediately followed by a hyphen
    [attr|=val]
   [attr^=val]
                    Selects elements with an attr attribute whose value begins with val
    [attr$=val]
                    Selects elements with an attr attribute whose value ends with val
   [attr*=val]
                    Selects elements with an attr attribute whose value contains val
   [attr!=val]
                    Selects elements with no attr attribute or whose attr attribute is not val
NOW
```

Using Attribute Selectors

```
// Select all <img> elements with alt attributes
var results = $("img[alt]");

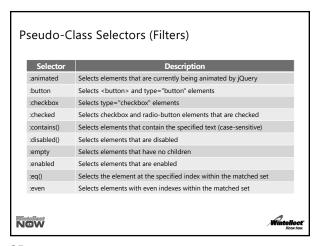
// Select all <img> elements with alt="photo" attributes
var results = $("img[alt=photo]");

// Select all <img> elements with src attributes whose value
// ends with ".png"
var results = $("img[src$=\\.png]");

// Select all <img> elements with src attributes whose value
// ends with ".png" and with alt="photo" attributes
var results = $("img[src$=\\.png][alt=photo]");

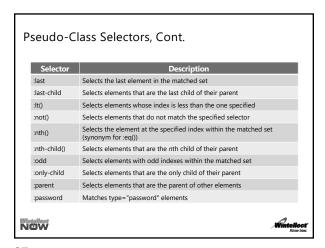
// Select all <img> elements that lack alt attributes
var results = $("img:not([alt])");

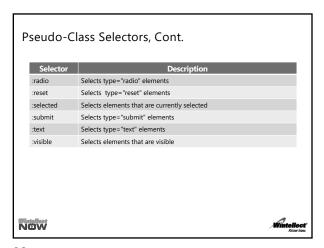
NOW
```



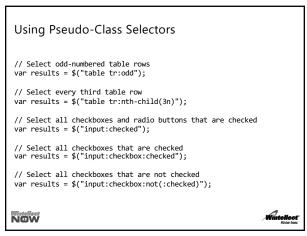
Pseudo-Class Selectors, Cont. :file Matches type="file" elements Selects the first element in the matched set :first-child Selects elements that are the first child of their parent Selects elements that currently have the input focus :gt() Selects elements whose index is greater than the one specified Selects elements which contain at least one element that matches the specified selector :header Selects header elements (h1, h2, h3, and so on) :hidden Selects elements that are hidden Selects <img> elements :image Selects <input>, <textarea>, <select>, and <button> elements NOW

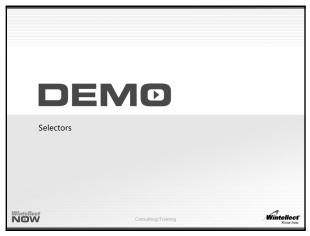
25 26





27 28





29 30