Prototype ⇔ jQuery

To and from JavaScript libraries.

Remy Sharp (remysharp.com)

Why Prototype?

- Extends the DOM and core JavaScript objects
- An arsenal of utility functions

Based on Prototype 1.5.1 & 1.6

Why jQuery

- Centred around chaining and binding methods to objects and elements
- Totally encapsulated
- Aims to be exceptionally easy to develop with

Based on jQuery 1.2.1

Differences in Native Support

- Prototype has:
  - Class creation
  - Try.these
  - Position, Range
- jQuery has:
  - No Conflict ($)
  - Effects

Non-exhaustive list, and in most case, the functionality can be implemented with plugins.

Syntax Comparison

Dollar Variable

- Prototype uses $ for id based selection
- jQuery $ = CSS based selector (= $$ in Prototype)

Note that Prototype will return element objects or arrays of elements for most methods. jQuery will usually return a jQuery object (which looks like an array in Firebug).

$ Example

Prototype

```
$('speech1').show();
```

jQuery

```
$('#speech1').show();
```

CSS Based Selectors

- Prototype - $$
  To narrow down it's context use Element.getElementsBySelector(selector) (or Element.select(selector) in 1.6)
- jQuery - $
  Virtually all of jQuery's DOM selection is done using CSS 1-3

Selector Examples

Prototype

```
$$('.dialog').invoke(‘show’);

$('final-speech').getElementsBySelector ↩
('DIV.final-dialog').each(Element.hide);

// 1.6
$('final-speech').select('DIV.final- ↩
dialog').invoke('hide');
```

Selector Examples

jQuery

```
$('.dialog').show();

$('#final-speech DIV.final-dialog') ↩
  .hide();
```

DOM Ready Event

- Prototype - uses Event object
- jQuery - uses two types of syntax, both meaning the same thing

jQuery uses different methods to execute the ready function when the DOM is ready, using specific methods for IE and for Safari (http://tinyurl.com/p9pwe, http://tinyurl.com/2ya35y)

Ready Example

Prototype

```
Event.observe(window,'load',function(){});
```

Prototype 1.6

```
document.observe('contentloaded',
  function{});
```

jQuery

```
$(document).ready(function(){}); // or

$(function(){});
```

Iteration

- Prototype - current active element, and position is passed in to callback function.

```
[el1, el2].each(fn(el, i))
```

- jQuery - current element position passed in to callback function, and binds the function to current active element (i.e. this is set to the active element).

```
$([el1, el2]).each(fn(i))
```

DOM Walking

- Prototype - up, down, next & previous
- jQuery - parent/s, children, next, prev (& nextAll, prevAll)

DOM Manipulation

- Prototype - Insertion class: After, Before, Bottom, Top, update (1.6 will add: Element.insert)
- jQuery - after, before, append, prepend & html

Element Classes

- Prototype - addClassName, removeClassName, toggleClassName, hasClassName
- jQuery - addClass, removeClass, toggleClass, is (for class matching)

Events

- Prototype - Event class: observe, stopObserving
  Prototype 1.6 will support Element.observe
- jQuery - bind, unbind (also supports shortcuts: .click, .dblclick, .mouse*, .ready., .focus, .blur)

Bubbling

- Prototype - Event.stop()
- jQuery - return false or event.stopPropagation() (event is passed in to the callback)

Ajax

Prototype

```
new Ajax.Request(url[, options])
```

jQuery

```
$.ajax(options) // url included in options
```

Ajax - Method Comparison

Prototype	jQuery
onCreate	beforeSend
onSuccess	success
onException	error
onComplete	complete

Ajax Examples

Prototype

```
new Ajax.Request('/profile', {
 method: 'post',
 parameters:$H({'action':'check_username',
  'username':$F('username')}),
 onSuccess: function (j) {
  // do stuff with response
 }
});
```

Ajax Examples

jQuery

```
$.ajax({ url: '/profile',
 data: {'action':'check_username',
  'username': $('#username').val()},
 type: 'post',
 success: function (json) {
  // do stuff with response
 }
});
```

Plugins / Extensions

Prototype

```
Element.addMethods({myPlugin : function ↩
(element, args) { return element; }});
```

jQuery

```
jQuery.fn.myPlugin = function (args) ↩
{ return this; };
```

Browser Detection

- Prototype - Prototype.Browser.IE, .Webkit, etc.
- jQuery - jQuery.browser.msie, .safari, etc.

Resources

	Prototype	jQuery
API	prototypejs.org/api	docs.jquery.com/Core
Tutorials	prototypejs.org/learn	docs.jquery.com/Tutorials
Effects	script.aculo.us	interface.eyecon.ro