Painless JavaScript

An Introduction to jQuery

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What is JavaScript?

- JavaScript is a programming language
- JavaScript is ECMAScript, not Java (huh?)
- JavaScript is a virtual machine
- JavaScript is used as the glue to turn web sites into web applications

Where is JavaScript Used?

- 74.58% of all websites
- Virtually every site with advertising
- Any Google application, Digg, CBC...
- In Drupal!
- Popular Science (www.popsci.com)

http://dev.opera.com/articles/view/mama-scripting-quantities-and-sizes/

Why use JavaScript?

- Streamline the user interface
- Reduce bandwidth with AJAX or AHAH (good in theory for mobile devices)
- Do things impossible without (drag and drop, lightboxes, etc)
- Avoid Flash

JavaScript and the DOM

- For web developers, JavaScript is the language we share with the Document Object Model
- Other languages could be used as well (Python, VBScript, etc) but only JavaScript has widespread penetration
- Just like a proper XHTML document, the DOM is (almost) tree

Why you've probably avoided JavaScript

http://icanhascheezburger.com/2008/12/05/funny-pictures-eeeewwwwww-dog-germs/

jQuery!

- jQuery is a small and extensible library to simplify writing JavaScript
- jQuery is included with Drupal 5 and above
- Instead of having to talk to the DOM directly, you can use your knowledge to XHTML and CSS to act as a common language

```
$(document).ready(function() {
  // Your awesome code goes here.
});
```

Finding Something

- $('p');
- $('#sidebar-right');
- $('.node');
- $('#sidebar-left li', '#sidebar-right li');

Doing Something

- $('...').hide();
- $('...').slideToggle();
- $('...').show().addClass('new');

Putting it together

```
$(document).ready(function() {
  $('body').hide();
});
```

Getting Started

- A browser
- A JavaScript console and debugger
  - FireBug for Firefox, Safari 4 Public Beta, or IE 8
- Lots of RAM
- A web page - any web page with jQuery included

Quick Demo

(Don’t forget about the browser cache)

Browser-specific jQuery

```
if ($.browser.msie) {
  $(document).ready(function() {
    var widths = new Array();
    $("#navbar #primary .links li a").each(function(i) {
      widths[i] = this.innerHTML.length *
        parseInt(document.body.currentStyle.fontSize) / 100 * 9;
      if (widths[i] < 90)
        widths[i] = 90;
    });
    $("#navbar #primary .links li").each(function(i) {
      this.style.width = widths[i];
    });
  });
}
```

Modifying Forms

Watch out for #type => ‘submit’ #value’s

FormAPI Notes

- #ahah is great, ahah_helper is better
- Form validation
- Form caching
- The build, render, modify loop

Drupal-specific Notes

- Drupal.behaviors instead of $(document).ready() in Drupal 6
- drupal_add_js('settings', ...);
- JS caching, aggregation, and update.php

Security

- If your JavaScript only ever modifies "front-end" aspects, security issues are minimal
- Remember that users can disable or run their own JavaScript
- Never only do JS validation; do it on the server as well

XSS / CSRF

- Use check_plain() or input formats; fuzz with the or alert(); test
- Try to avoid using menu callbacks to directly modify data if possible
- drupal_get_token()

jQuery Update

jQuery UI

Plugin Managers

- http://drupal.org/project/jq
- http://drupal.org/node/315100 (Core issue)

Next Steps

- http://docs.jquery.com/
- http://jqueryui.com/
- http://groups.drupal.org/javascript
- http://api.drupal.org/api/file/developer/topics/javascript_startup_guide.html/6

Questions and Discussion