

# Firebug & Fiddler: Development Tools for the Web Penn State Web Conference 2009

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#### **Firebug & Fiddler: Development Tools for the Web**

- Tools help develop, test, and debug
- Fiddler and Firebug are powerful
  - Fiddler monitors HTTP traffic in and out of your computer and allows you to change it
  - Firebug allows you to inspect and manipulate what your browser does to the data (Firefox)
- We will show the basics of what they can do

# What is Firebug?

- Tool that allows developers to:
  - Inspect and Edit HTML and the DOM
  - View and Edit CSS
  - Work with JavaScript
  - Monitor network activity
- Integrates with Firefox (as an add-in)
- Free and open source



#### Are there any drawbacks?

- Learning curve
- Can't build html/CSS from scratch
- Only a "Lite" version for IE, Opera, Safari



# **Inspect and Edit HTML and the DOM**

- View source live
- Search
- Find elements/Inspect
- Instant HTML editing
- Breadcrumbs
- Copy the source
- See changes highlighted



# View and Edit CSS

- Tweak CSS
  - Inspect any style sheet
  - Preview colors and images
  - Inspect the cascade
  - Enable/disable
  - Edit
  - Autotext



- Visualize CSS layout
  - Box model shading
  - Rulers and guides
  - Edit Layout Tab

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### Work with JavaScript

- Debug JavaScript
  - Enable
  - Find scripts easily
  - Breakpoints
  - Break on errors
  - Watch expressions
  - Variable tooltips



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- Quickly Find Errors
  - Status bar indicator
  - Informative errors
  - Jump to the debugger
  - Quick search
  - Filtering errors





### **Monitor network activity**

- Enable
- Watch the timeline unfold
- Break it down by type
- Cached or not cached
- Examine HTTP Headers
- XMLHttpRequest monitoring

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# **More Information**

- Download at <u>http://getfirebug.com/</u>
- Intro videos and docs at getfirebug.com/docs.html
- Some extensions
  - Rainbow Javascript syntax highlighting
  - Yslow Performance report card



# What is Fiddler?

- Web Debugging Proxy
- Allows you to inspect all HTTP(S) traffic between your computer and the Internet



- Freeware
- Set breakpoints
- "fiddle" with requests and responses

Fiddler

Web Debuaaina Proxv

# What can you do with it?

- View performance statistics
- Inspect/Edit web traffic
  - Outgoing Requests
  - Incoming Responses
  - Including AJAX calls
- Build ad-hoc requests
- Reissue requests
- Breakpoints
- Batch Execution



#### The User Interface

- 1. HTTP Sessions list
- 2. Statistics Tab

•Shows statistics about the selected sessions

- 3. Inspector Tab
  - •Displays Requests and Responses
  - •View and Modify
- 4. Builder Tab

•Builds handcrafted HTTP requests

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#### **Sessions List**

- 1. # An ID# of the request generated by Fiddler for your convenience
- 2. **Result** The Result code from the HTTP Response.
- Protocol The Protocol used by this session
- 4. Host The hostname of the server to which the request was sent
- 5. URL The path and file requested from the server
- 6. **Body** The number of bytes in the Response body
- 7. Caching Values from the Response's Expires or Cache-Control headers
- 8. Content-Type The Content-Type header from the Response
- **9. Process** The local Windows Process from which the traffic originated



#### **Statistics Tab**

- Select multiple requests
- Statistics tab
- Rough estimates of download times
- Shows files sizes by type





# **Inspecting Web Traffic**

- Select a single request
- Inspectors tab
- Request on top, Response on the bottom
  - Headers
  - Content in different views (Text, Raw, Image, etc)
  - Compare Responses

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#### **Request Builder**

- To send a customized request
- Can build from an existing request
  - Drag a request from the left
- Execute
- Inspect Results in Fiddler



### **QuickExec window**

Command	Action	Sample
bpafter	Break any response on RequestURI	bpafter /favicon.ico
bpu	Break any request on RequestURI	bpu /default.aspx
cls	Clear session list	cls
bps	Break any response on status code	bps 200
>size	Select all sessions over a certain size	>40000 Responses over 40KB
urlreplace	Replace any portion of a URL with a new string	urlreplace google.com psu.edu
		Fiddler Web Debugging Proxy
6/8/2009	Firebug & Fiddler: Development Tools for the	e Web 17

Penn State Web Conference 2009

#### **More Information**

- Start here: <u>http://www.fiddler2.com/</u>
- Documentation
- Video tutorials
- Add-ons
- Developer info

