

Effiziente Fehlersuche in Web 2.0-Anwendungen

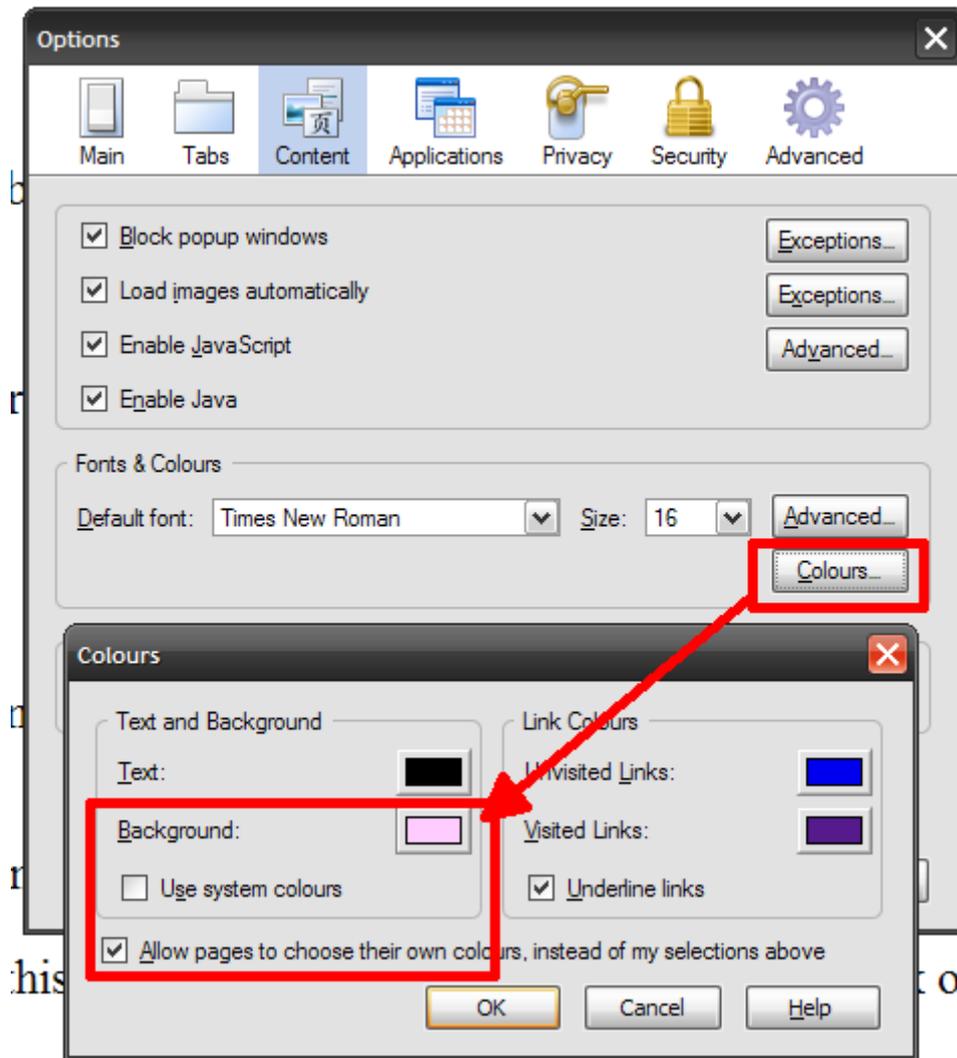
Agenda

- Kurze Vorstellung
- Eingebaute Firefox-Tools
- Webdeveloper Toolbar
- Firebug
- Weitere Firefox-Tools
- Weitere Tools für Internet Explorer, Safari und andere Browser
- Fragen & (hoffentlich) Antworten

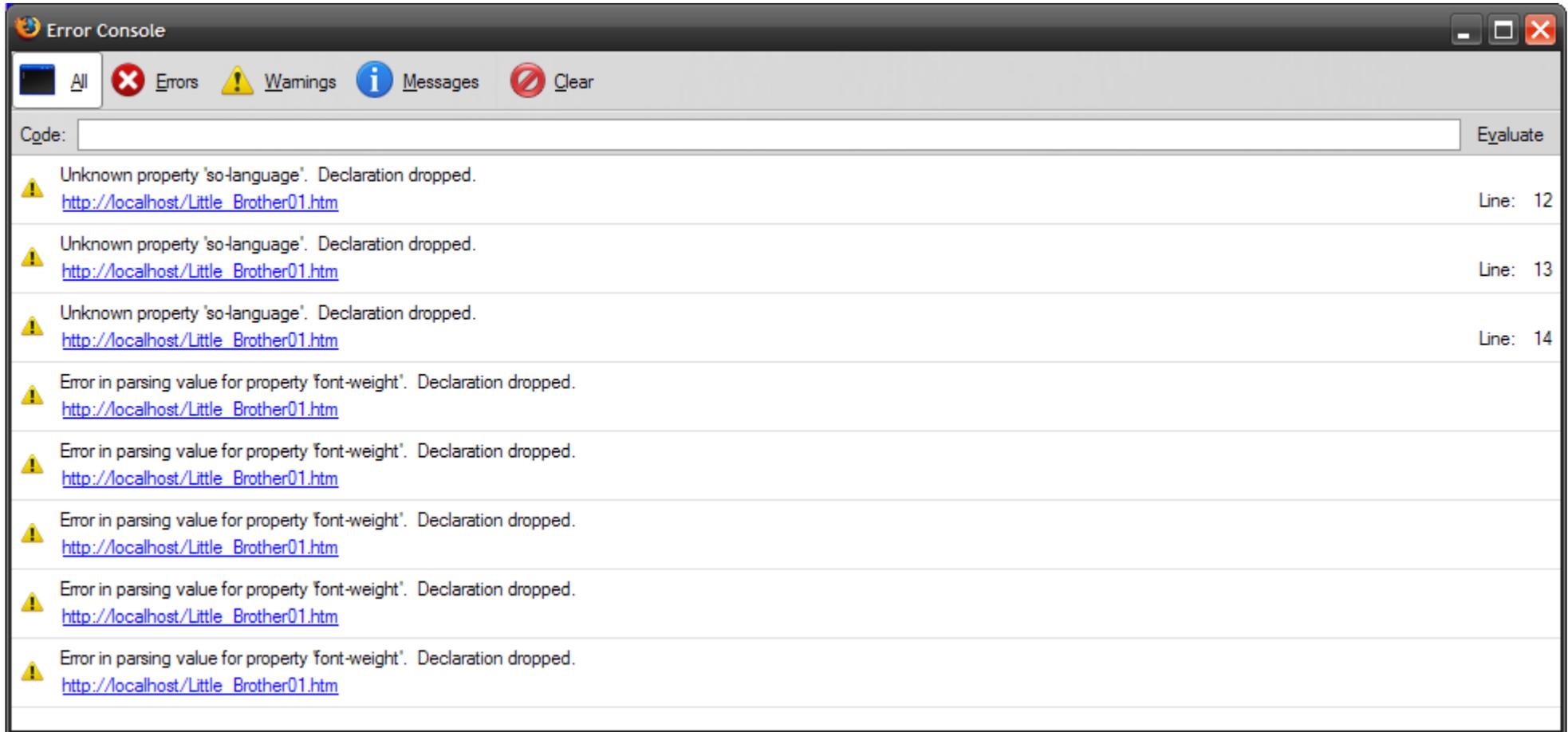
Martin Leyrer

- Alter Sack (Netscape 0.x, frühe 90er)
- Anhänger des "Progressive Enhancement"
- KEIN JavaScript & CSS Guru
- Lasse mich gerne vom Code anderer „inspirieren“
- Fan von „fertigen“ Frameworks

Hintergrundfarbe

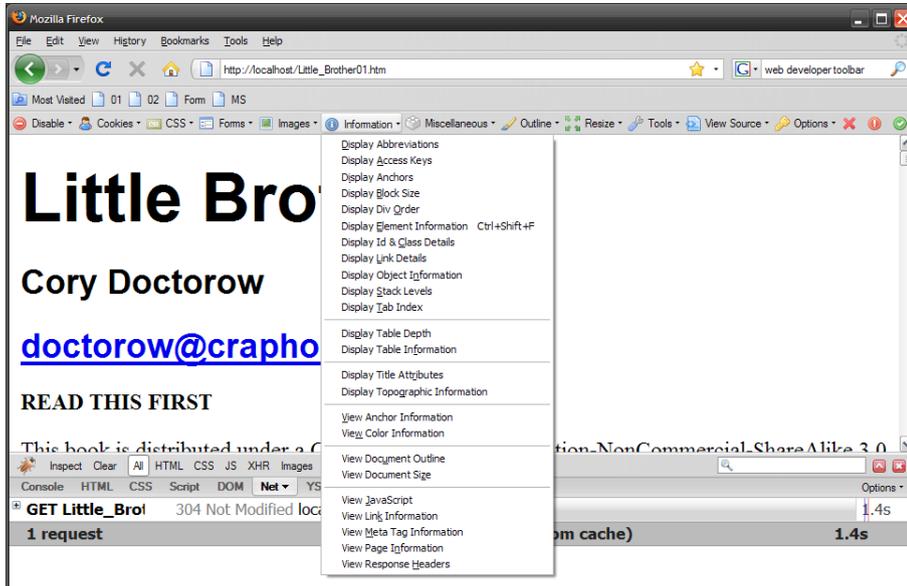


Error-Console



Strg-Shift-J

Web Developer Toolbar



- Anzeige div. Infos
- (De-)Aktivieren von JavaScript, Bildern
- Forms
- Cookies
- Tools
- View Generated Source



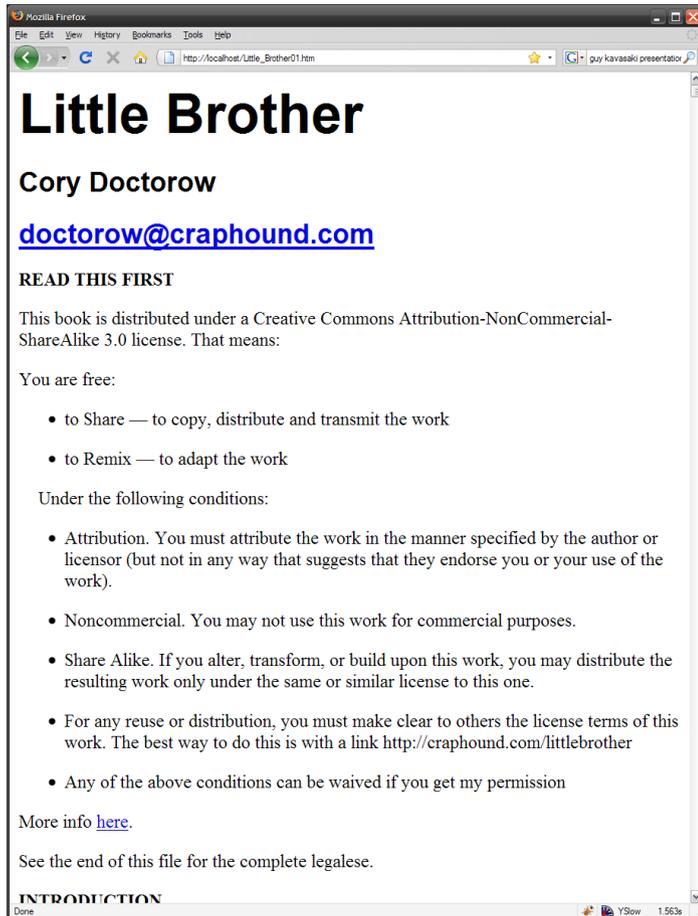
Firebug

Firebug ist ...

- Firefox Plugin
- JavaScript Debugger
- DOM Viewer
- CSS Viewer
- JavaScript Logging Engine
- und ...



Firebug aufrufen



F12



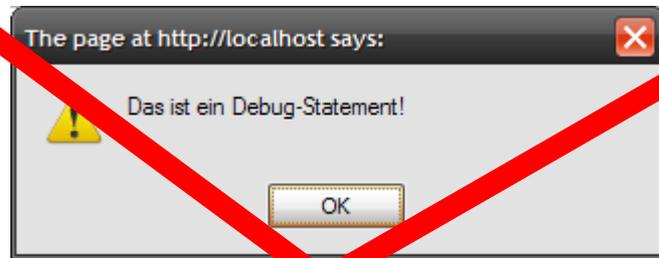
Die Tabs



- Console
- HTML
- CSS
- Script
- Dom
- Net

Console

- `console.log("We are at point A");`
- `console.info("We are at point B");`
- `console.warn("At point C!");`
- `console.error("We reached point D :-(");`
- AJAX-Calls
- Wird von Frameworks wie Dojo,
genutzt
- Firebug „Light“ für IE



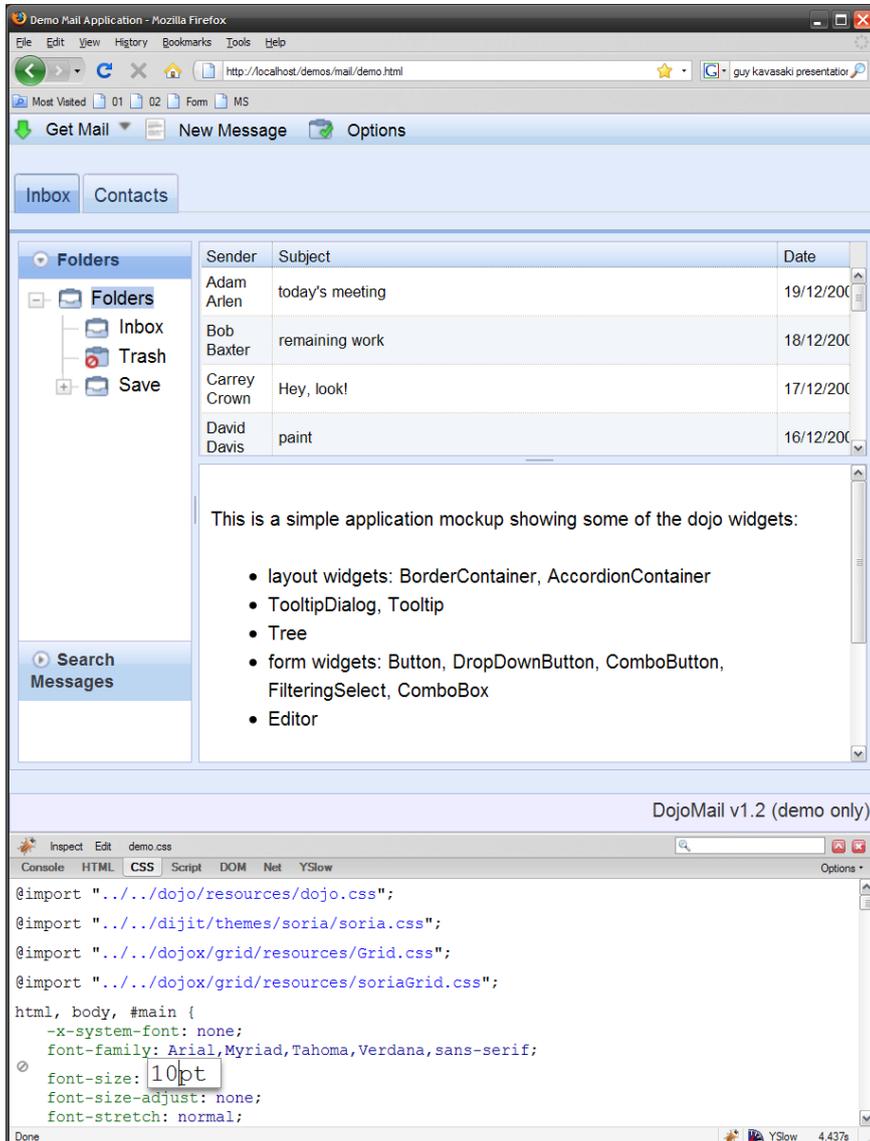
HTML-Ansicht

- Elemente werden hervorgehoben
- HTML editierbar
- Rechte Maustaste → Inspect um Elemente zu finden

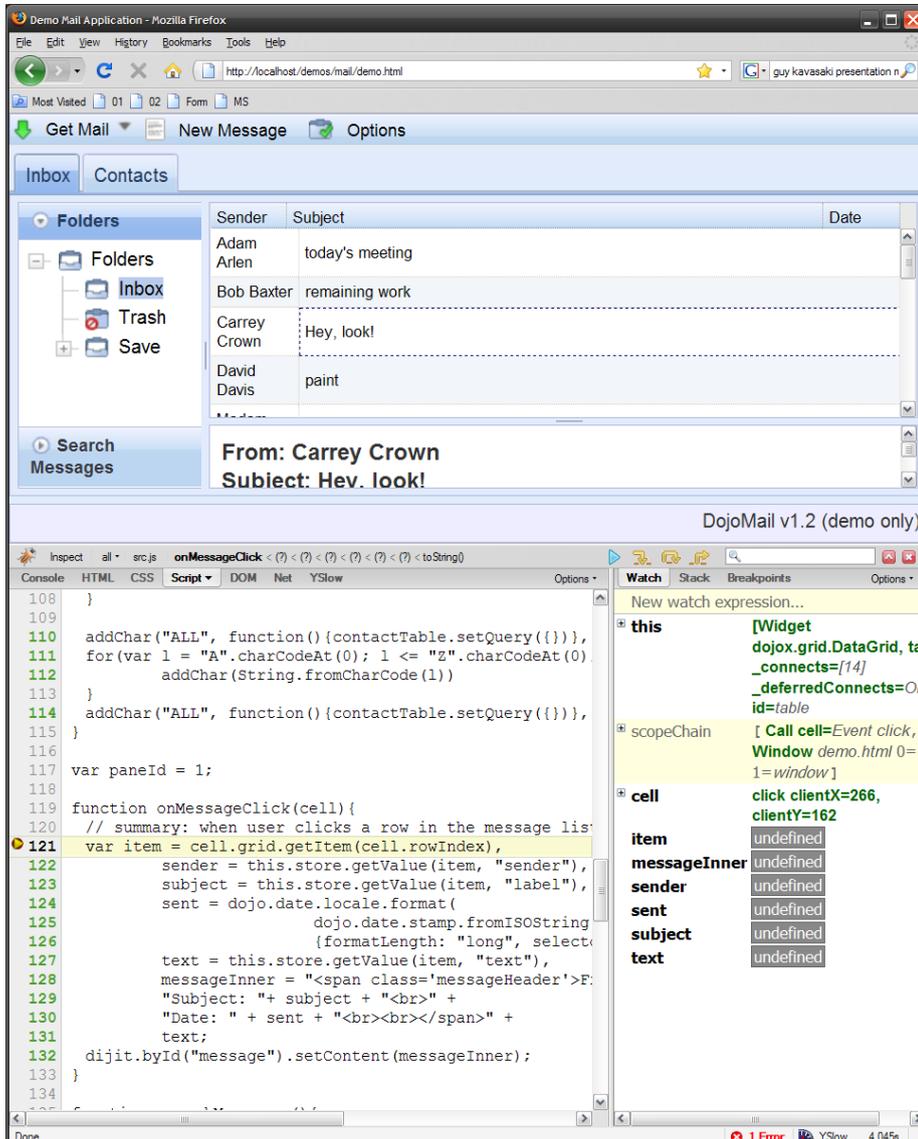


HTML/CSS-Ansicht

- CSS kann durchsucht werden
- CSS editierbar & Live Update
- CSS-Vererbung sichtbar
- Box-Modell



JavaScript-Debugger



- Full debugger
- Breakpoints
- Variable value on hover
- Step in, Step over, etc.
- Watches
- `debugger();`

Netzwerk-Ansicht

The screenshot shows a Mozilla Firefox browser window displaying a demo mail application. The browser's address bar shows the URL `http://localhost/demos/mail/demo.html`. The application interface includes a navigation bar with 'Get Mail', 'New Message', and 'Options' buttons, and a sidebar with 'Inbox' and 'Contacts' tabs. The main content area displays a list of messages with columns for 'Sender', 'Subject', and 'Date'. Below the messages, the browser's developer tools are open, showing the 'Network' tab. The network view displays a list of requests, including 'GET tabContaii', 'GET spriteChec', 'GET spriteArro', 'GET spriteRou', 'GET splitConta', and 'GET treeI_half'. The 'Response' pane for the selected request shows the following headers:

```
Response Headers
Date: Fri, 17 Apr 2009 01:18:04 GMT
Server: Apache/2.2.11 (Win32) PHP/5.2.9-1
Last-Modified: Thu, 26 Mar 2009 07:00:46 GMT
Etag: "1000000016e6e-41-466002ce3c380"
Accept-Ranges: bytes
Content-Length: 65
Keep-Alive: timeout=5, max=93
Connection: Keep-Alive
Content-Type: image/gif

Request Headers
Host: localhost
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-GB; rv:1.9.0.8) Gecko/2009032609 Firefox/3.5.30729
Accept: image/png, image/*;q=0.8, */*;q=0.5
Accept-Language: en-gb,en;q=0.5
Accept-Encoding: gzip, deflate
```

- Anzeige der Ladezeiten aller Elemente der Webseite
- HTTP-Header des Requests sowie der Antwort des Servers

YSlow

The screenshot shows a Mozilla Firefox browser window displaying a demo mail application. The browser's address bar shows the URL `http://localhost/demos/mail/demo.html`. The application interface includes a navigation bar with 'Get Mail', 'New Message', and 'Options' buttons. Below this is a 'Folders' section with 'Inbox' and 'Contacts' tabs. A table of messages is visible, with columns for 'Sender', 'Subject', and 'Date'. The messages listed are:

Sender	Subject	Date
Adam Arlen	today's meeting	19/12/200
Bob Baxter	remaining work	18/12/200
Carrey Crown	Hey, look!	17/12/200

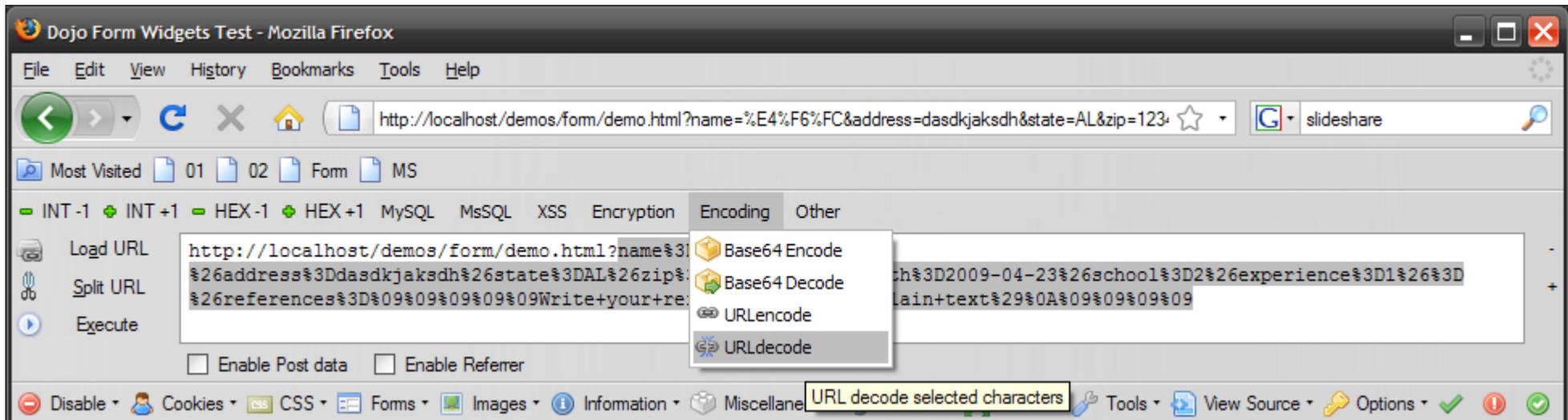
Below the messages, the text 'DojoMail v1.2 (demo only)' is displayed. The YSlow performance tool is open in the bottom panel, showing a comparison between 'Empty Cache' and 'Primed Cache' states. The 'Empty Cache' state shows a total size of 841.7K and 125 HTTP requests, while the 'Primed Cache' state shows a total size of 0.0K and 125 HTTP requests. A pie chart labeled 'Weight graphs:' is also visible. The YSlow tool interface includes tabs for 'Inspect', 'Performance', 'Stats', 'Components', and 'Tools', with 'YSlow' currently selected. The status bar at the bottom indicates 'Done' and 'F 841.7K 3.295e'.

- Performance-Analyse & Tipps
- Statistik über Ladezeiten
- JSLint & andere Tools
- Gedacht für „große“ Seiten

„ME-Tools“

- XSS Me
 - Überprüft Forms auf Cross Site Scripting Probleme
 - Lange Laufzeit
 - Kein Wundermittel
- SQL Inject Me
 - Überprüft Datenbankzugriffe via Forms auf SQL-Injections
 - Ebenfalls kein Wundermittel

Hackbar



- URL-Manipulation (encode/decode)
- XSS & SQL-Injection Überprüfung

Firefox-Tools

- Webdeveloper
Toolbar

- <https://addons.mozilla.org/en-US/firefox/addon/60>

- Firebug

- <https://addons.mozilla.org/de/firefox/addon/1843>

- YSlow

- <https://addons.mozilla.org/de/firefox/addon/5369>

- XSS Me

- <https://addons.mozilla.org/en-US/firefox/addon/7598>

- SQL Inject Me

- <https://addons.mozilla.org/en-US/firefox/addon/7597>

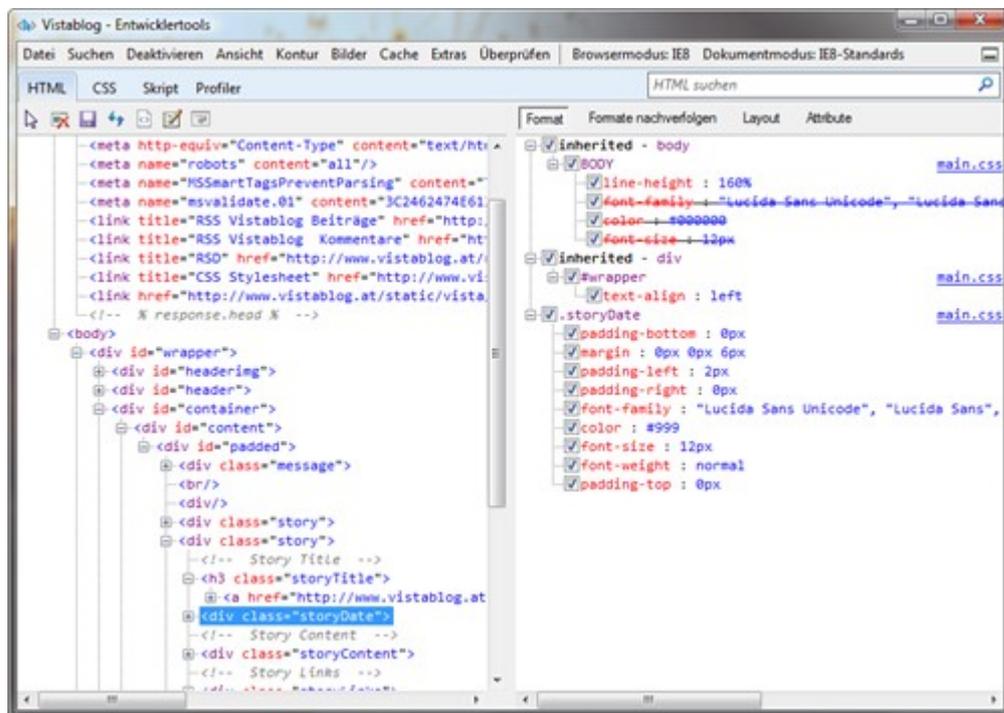
- Hackbar

- <https://addons.mozilla.org/en-US/firefox/addon/3899>

- Venkman
JavaScript
Debugger

- <http://www.mozilla.org/projects/venkman/>

Internet Explorer 8 Entwicklertools



- Debugger
- Firebug-ähnlich
- On-the-fly
Änderungen

• <http://www.microsoft.com/germany/windows/internet-explorer/default.aspx>

Weitere IE-Tools

- Internet Explorer Developer Toolbar
IEDevToolBarSetup.msi
- Companion.JS
Javascript debugger for IE
- DebugBar (kostenpflichtig!)
Development Bar (IE sidebar)
- Microsoft Script Debugger
Scripting Debugging im IE

Tools für Safari & Andere

- Safari Web Inspector
- Drosera Debugger
- Fiddler Web Debugging Proxy
- Debugging using Apache as proxy

Fragen ?



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