

# Free Your Javascript

Zach Wick  
zach@zachwick.xxx

March 23, 2014

# Agenda

- ▶ About the Speaker
- ▶ What is “Free JS”?
- ▶ Why Should You Free Your JS?
- ▶ How You Can Free Your JS
- ▶ Which license(s) to use
- ▶ Interacting with non-free JS

# FREE ALL THE THINGS!



# What is "Free JS"?

- ▶ "trivial"

# What is "Free JS"?

- ▶ "trivial"
  - ▶ no AJAX

# What is "Free JS"?

- ▶ "trivial"
  - ▶ no AJAX
  - ▶ no dynamically loaded external JS

# What is "Free JS" ?

- ▶ "trivial"
  - ▶ no AJAX
  - ▶ no dynamically loaded external JS
  - ▶ no functions or methods

# What is "Free JS" ?

- ▶ "trivial"
  - ▶ no AJAX
  - ▶ no dynamically loaded external JS
  - ▶ no functions or methods
  - ▶ no dynamic JS constructs that must be interpreted to verify their non-triviality (eval, obj['myfunc'](myvar);, etc)



# What is "Free JS" ?

- ▶ "trivial"
  - ▶ no AJAX
  - ▶ no dynamically loaded external JS
  - ▶ no functions or methods
  - ▶ no dynamic JS constructs that must be interpreted to verify their non-triviality (eval, obj['myfunc'](myvar);, etc)
- ▶ freely licensed

# What is non-free JS?

Everything else

It's  
a  
JS  
Trap!



# It's a JS Trap!

- ▶ JS runs on **your** machine! (GASP!)

# It's a JS Trap!

- ▶ JS runs on **your** machine! (GASP!)
- ▶ JS is usually supplied from the web server

# It's a JS Trap!

- ▶ JS runs on **your** machine! (GASP!)
- ▶ JS is usually supplied from the web server
  - ▶ Can you run your own modified copy of the JS?

# It's a JS Trap!

- ▶ JS runs on **your** machine! (GASP!)
- ▶ JS is usually supplied from the web server
  - ▶ Can you run your own modified copy of the JS?
- ▶ Only options are to block entirely, or run entirely

# How You Can Free Your JS

- ▶ Identify



# How You Can Free Your JS

- ▶ Identify
- ▶ Decide

# How You Can Free Your JS

- ▶ Identify
- ▶ Decide
- ▶ License

# How You Can Free Your JS

- ▶ Identify
- ▶ Decide
- ▶ License
- ▶ Label

# How You Can Free Your JS

- ▶ Identify
- ▶ Decide
- ▶ License
- ▶ Label

# Identifying JS

## HTML Script Tags

```
<script src="myfile.js"> </script>
```

```
<script>  
var myString = "Hello World!";  
alert(myString);  
</script>
```

# Identifying JS

## Event Handlers

```
<body onload="alert('Hello World!')">
```

# What about dynamically embedded JS?

"You should only worry about this sort of scripts after you have set proper licensing to all the other forms of JavaScript on your page and it is still not behaving as expected when running the page with LibreJS on. This usually means LibreJS is blocking further scripts that are loaded dynamically, and you need to add free license notices to them as well."

# What to do about that pesky JS?





# Which License(s) to Use?

CC0	GPLv2.0 or later	GPLv3 or later
Apache 2.0	LGPL v2.1	LGPL v3.0
BSD 3 Clause	MPL 2.0	Expat
X11	XFree86	FreeBSD
ISC	Artistic 2.0	Public Domain

# Label all the things!!

- ▶ javadoc style @licstart/@licend

# Label all the things!!

- ▶ javadoc style @licstart/@licend
- ▶ magnet links (cool new way!)

# Label all the things!!

- ▶ javadoc style @licstart/@licend
- ▶ magnet links (cool new way!)
- ▶ JS web labels

# Label all the things!!

- ▶ javadoc style @licstart/@licend
- ▶ magnet links (cool new way!)
- ▶ JS web labels
- ▶ Features in the works (SHH!)

# @licstart/@licend Example

## HTML embedded JS (script tags and event handlers)

```
<head>
  <title>My Page</title>
  <meta charset="UTF-8" />
  <script>
    /*
    @licstart  The following is the entire license notice for the
    JavaScript code in this page.
```

Copyright (C) 2012 Loic J. Duros

The JavaScript code in this page is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License (GNU GPL) as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version. The code is distributed WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU GPL for more details.

As additional permission under GNU GPL version 3 section 7, you may distribute non-source (e.g., minimized or compacted) forms of that code without the copy of the GNU GPL normally required by section 4, provided you include this license notice and a URL through which recipients can access the Corresponding Source.

```
@licend  The above is the entire license notice
for the JavaScript code in this page.
```

```
*/
</script>
</head>
```

# Stylized Comments

Less cool cousin of magnet links

Be careful with minification tools removing them

```
/**
 *
 * @source: http://www.lduros.net/some-javascript-source.js
 *
 * @licstart The following is the entire license notice for the
 * JavaScript code in this page.
 *
 * Copyright (C) 2012 Loic J. Duros
 *
 *
 * The JavaScript code in this page is free software: you can
 * redistribute it and/or modify it under the terms of the GNU
 * General Public License (GNU GPL) as published by the Free Software
 * Foundation, either version 3 of the License, or (at your option)
 * any later version. The code is distributed WITHOUT ANY WARRANTY;
 * without even the implied warranty of MERCHANTABILITY or FITNESS
 * FOR A PARTICULAR PURPOSE. See the GNU GPL for more details.
 *
 * As additional permission under GNU GPL version 3 section 7, you
 * may distribute non-source (e.g., minimized or compacted) forms of
 * that code without the copy of the GNU GPL normally required by
 * section 4, provided you include this license notice and a URL
 * through which recipients can access the Corresponding Source.
 *
 * @licend The above is the entire license notice
 * for the JavaScript code in this page.
 */
```

# Magnet Links!!!

LibreJS 5.0 and newer

List of magnet links on GNU LibreJS website

No code/comments after @license-end in that script tag

```
<script>  
// @license [magnet-link] [human readable name of the license]  
... [script is here] ...  
// @license-end  
</script>
```

```
<script>  
// @license magnet:?xt=urn:btih:1f739d935676111cfff4b4693e3816e664797050&dn=gpl-3.0.txt  
var myString = "Hello World!";  
alert(myString);  
// @license-end  
</script>
```



# JS Web Labels

## Specific formatting required

```
<table id="jslicense-labels1">
<tr>
<td><a href="/js/jquery-1.7.min.js">jquery-1.7.min.js</a></td>

<td><a href="http://www.jclark.com/xml/copying.txt">Expat</a></td>

<td><a href="/js/jquery-1.7.tar.gz">jquery-1.7.tar.gz</a></td>
</tr>
</table>
```

## Link from all pages that load a JS script.

```
<a href="/about/javascript" rel="jslicense">JavaScript license information</a>
```

# But None of Those Will Work For Me...

- ▶ What about concatenated then minified scripts?

# But None of Those Will Work For Me...

- ▶ What about concatenated then minified scripts?
  - ▶ <https://drupal.org/project/librejs> (Mark Burdett)

# But None of Those Will Work For Me...

- ▶ What about concatenated then minified scripts?
  - ▶ <https://drupal.org/project/librejs> (Mark Burdett)
  - ▶ LibreJS detecting mixed licensing in a single file

# But None of Those Will Work For Me...

- ▶ What about concatenated then minified scripts?
  - ▶ <https://drupal.org/project/librejs> (Mark Burdett)
  - ▶ LibreJS detecting mixed licensing in a single file
- ▶ Complain and then commit

# Interacting with non-free JS

- ▶ No JS whatsoever (dillo)

# Interacting with non-free JS

- ▶ No JS whatsoever (dillo)
- ▶ LibreJS (GNU Icecat, Iceweasel, etc.)

# Interacting with non-free JS

- ▶ No JS whatsoever (dillo)
- ▶ LibreJS (GNU Icecat, Iceweasel, etc.)
- ▶ Remember that “Complain and then commit” thing?



# Interacting with non-free JS

- ▶ No JS whatsoever (dillo)
- ▶ LibreJS (GNU Icecat, Iceweasel, etc.)
- ▶ Remember that “Complain and then commit” thing?
- ▶ JS-Devs-Task-Force mailing list

# Interacting with non-free JS

- ▶ No JS whatsoever (dillo)
- ▶ LibreJS (GNU Icecat, Iceweasel, etc.)
- ▶ Remember that “Complain and then commit” thing?
- ▶ JS-Devs-Task-Force mailing list
- ▶ bug-librejs mailing list

# Similar tools

- ▶ TamperMonkey

# Similar tools

- ▶ TamperMonkey
  - ▶ Free! (GNU GPLv3)
  - ▶ Bink based browsers only

# Similar tools

- ▶ TamperMonkey
  - ▶ Free! (GNU GPLv3)
  - ▶ Bink based browsers only
- ▶ No Script

# Similar tools

- ▶ TamperMonkey
  - ▶ Free! (GNU GPLv3)
  - ▶ Bink based browsers only
- ▶ No Script
  - ▶ Free! (GNU GPL)
  - ▶ Remember how dillo worked?

# Similar tools

- ▶ TamperMonkey
  - ▶ Free! (GNU GPLv3)
  - ▶ Bink based browsers only
- ▶ No Script
  - ▶ Free! (GNU GPL)
  - ▶ Remember how dillo worked?
- ▶ Ghostery

# Similar tools

- ▶ TamperMonkey
  - ▶ Free! (GNU GPLv3)
  - ▶ Bink based browsers only
- ▶ No Script
  - ▶ Free! (GNU GPL)
  - ▶ Remember how dillo worked?
- ▶ Ghostery
  - ▶ **NON-FREE** 'nuf said



# Further Reading

- ▶ <https://www.gnu.org/software/librejs/>
- ▶ <http://www.gnu.org/software/librejs/manual/>
- ▶ <http://www.gnu.org/software/librejs/free-your-javascript.html>
- ▶ <http://www.gnu.org/philosophy/javascript-trap.html>