



Components and services: The future of web development?

Andrew Betts, FT Labs

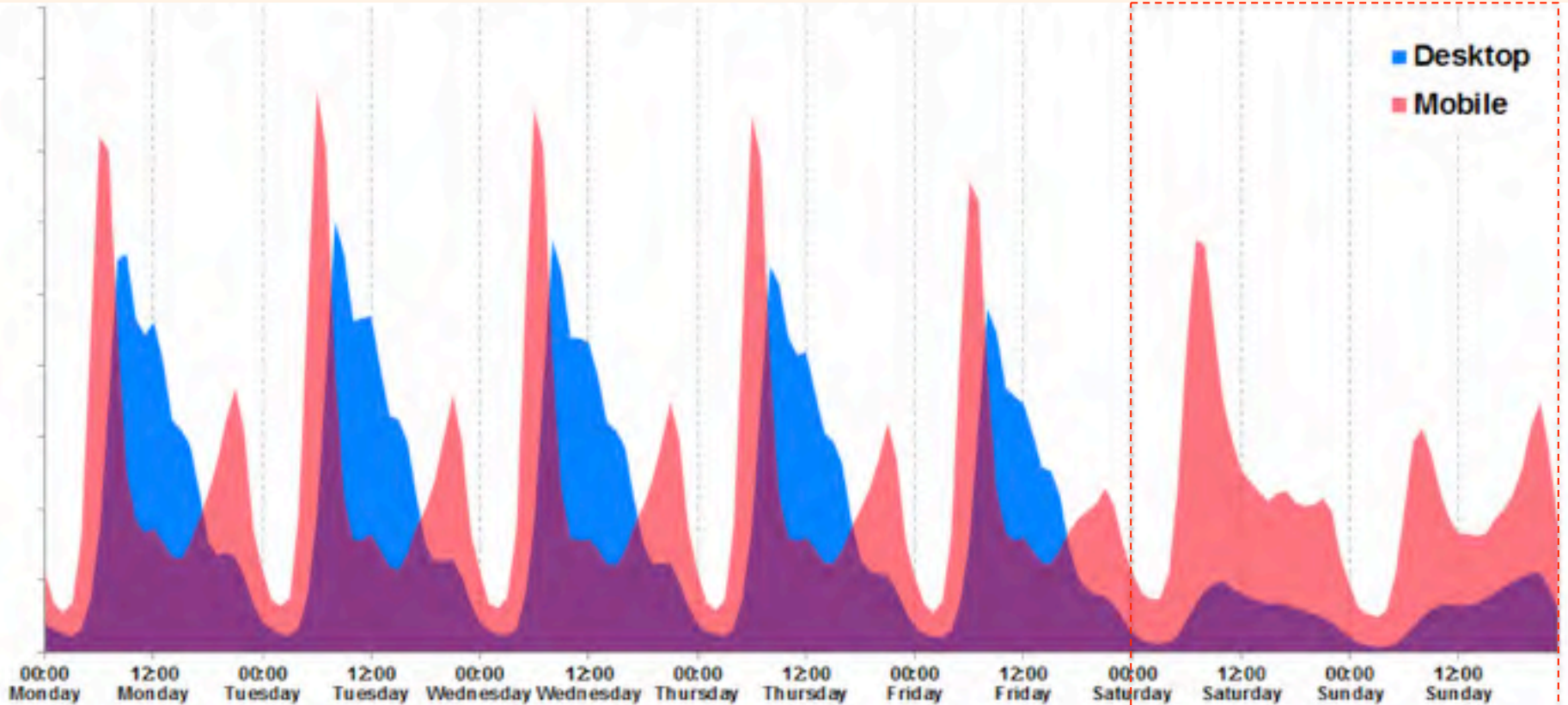
[@triblondon](#), [@ftlabs](#)

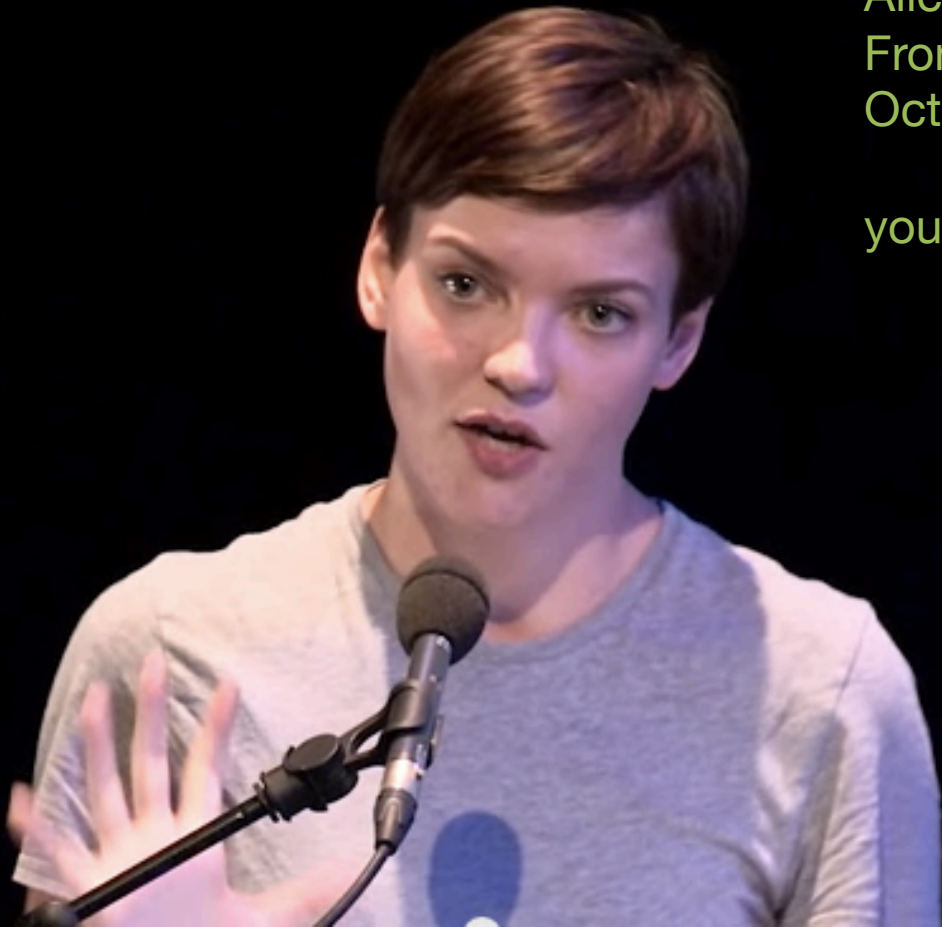


Why does everything take so long?!

Multiple formats

Average article consumption by device (FT)





Burn your select tags

Alice Bartlett

Front end London

October 2014

youtu.be/CUkMCQR4TpY

We're not here to do **easy things** for people who are **like us**.

- Alice Bartlett

The Chroma zone

Lea Verou

jQuery UK

June 2014

vimeo.com/97723672



contrast ratio

Background:

white

8.5

Text color:

hsla(200,0%,0%,.7)

How to use

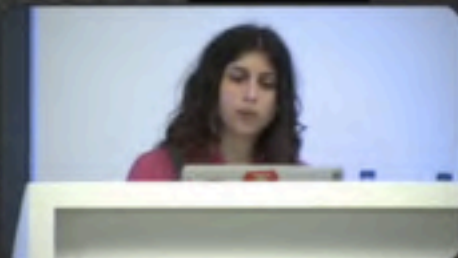
Set as background color

As you type, the contrast ratio indicated will update. Hover over the circle to get more detailed information.

When semi-transparent colors are involved as backgrounds, the contrast ratio will have an error margin, to account for the different colors they may be over.

This sample text attempts to visually demonstrate how readable this color combination is, for normal or **bold** text of various sizes and font styles.

Hint: Press the up and down keyboard arrows while over a number inside a functional color notation. Watch it increment/decrement. Try with the Shift or Alt key too!



Everyone hates **waiting**. But now they hate it **more than ever**

Threshold for acceptable load time, according to Akamai :

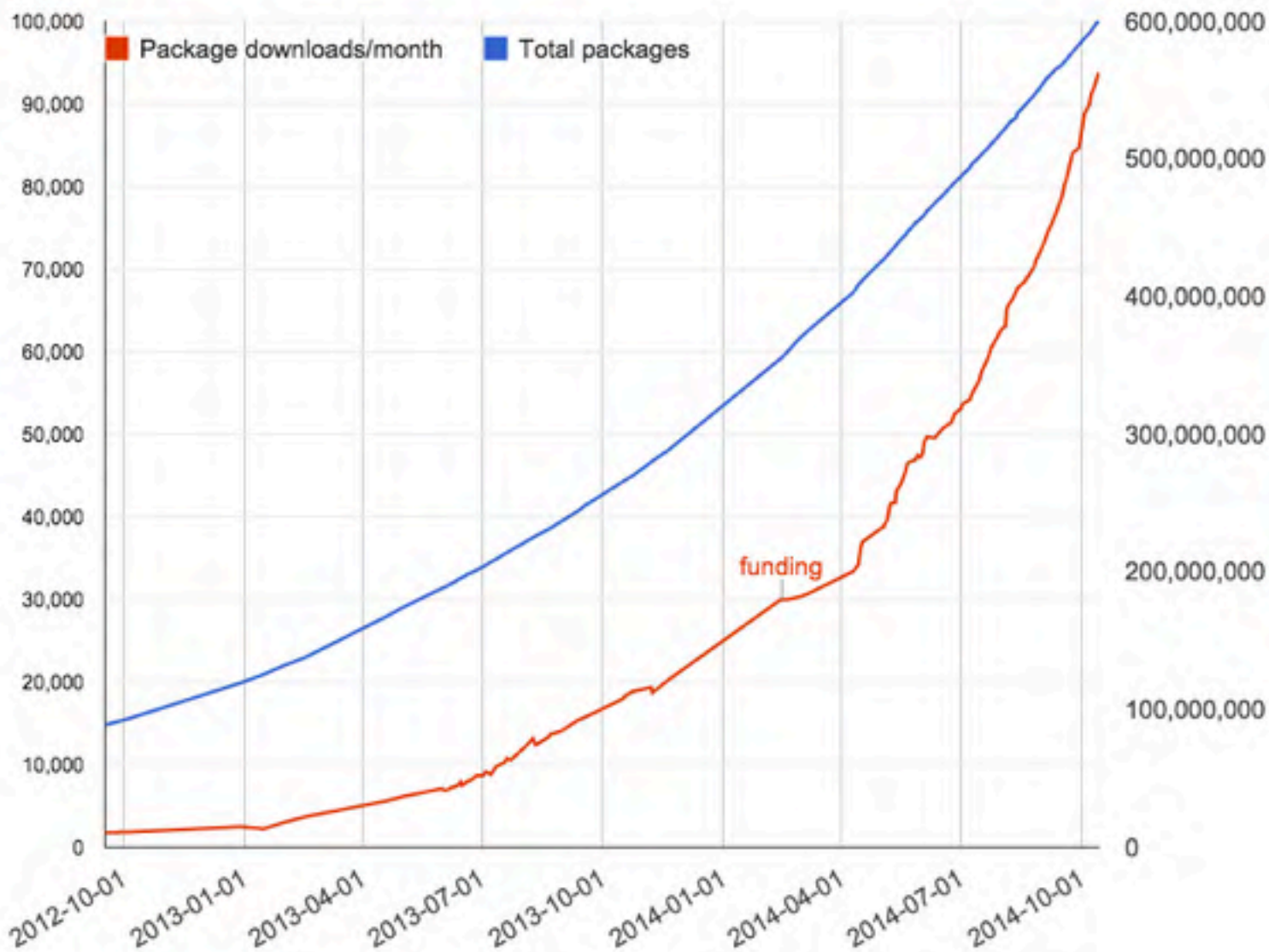
2006 – 4 seconds, 2009 – 2 seconds





Components

Total packages



Monthly downloads

Signs manual

Issue 4

MAYOR OF LONDON

Transport for London



1.2 Colour

Line colours provide a direct visual to the customer's initial point of reference – the Tube Map – as well as to other diagrams and service information. They also help non-English speakers find their way around the system.

As well as the use of Underground blue and red as primary corporate colours on specific elements such as the roundel, entrance fascia and directional sign lettering, Underground 'line' colours are expressed as a strip above line directional signs, and on the platform frieze.

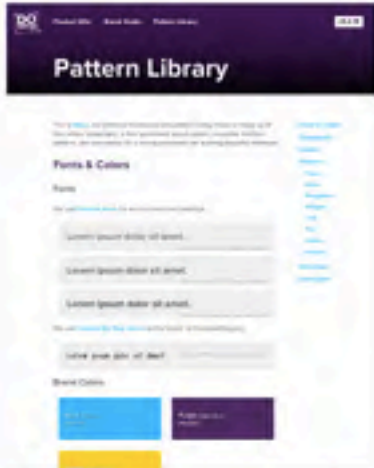
Specific colours also have additional uses for safety signs and notices.





Front end styleguides and pattern libraries

A *maban* joint. <http://gim.me/fZyK>



Pattern Library | DoSomething...



Next FontShop



Product Style Guide, Visual gu...



Kraken - A lightweight front...
cferdinandi.github.io



Style Guide Boilerplate
brettjankord.com



My Style Guide
trulia.github.io



<Project Name> | StyleSRC
thecodezombie.co.uk



Style Guide Boilerplate
bjankord.github.io



Google HTML/CSS Style
Guide



together we do the amazing

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Search the site



[Home](#) > [Style Guide](#)

Style Guide

This page shows all page content elements that may be used within the South Tees Hospitals NHS Foundation Trust website. For consistency, please refer here to choose styling which best reflects any new content added.

To add an element onto a page, copy the code from the boxes below and paste it into the HTML page editor.

[Table of contents](#)

Text-Level

UI Components

DESIGN ELEMENTS UI COMPONENTS JS COMPONENTS WIDGETS CSS UTILITIES

COMPONENTS

Cards >

Ad Units >

Alerts >

Badges >

Breadcrumbs >

Buttons >

Hero Banner >

Month blocks >

Preloader >

Page Title >

Pagination >

Picture >

POI List >

Month blocks

Blocks labeled with the first letter of the month of the year, supply an array of 12 colours chosen from the [colour palette](#).

```
= ui_component('month_blocks', properties: ['subduedgray', 'subduedgray', 'softblue', 's
```

Note that the above will output the markup for the preloader. To make it visible, you need to add a class of `is-loading` to the parent container.

EXAMPLE



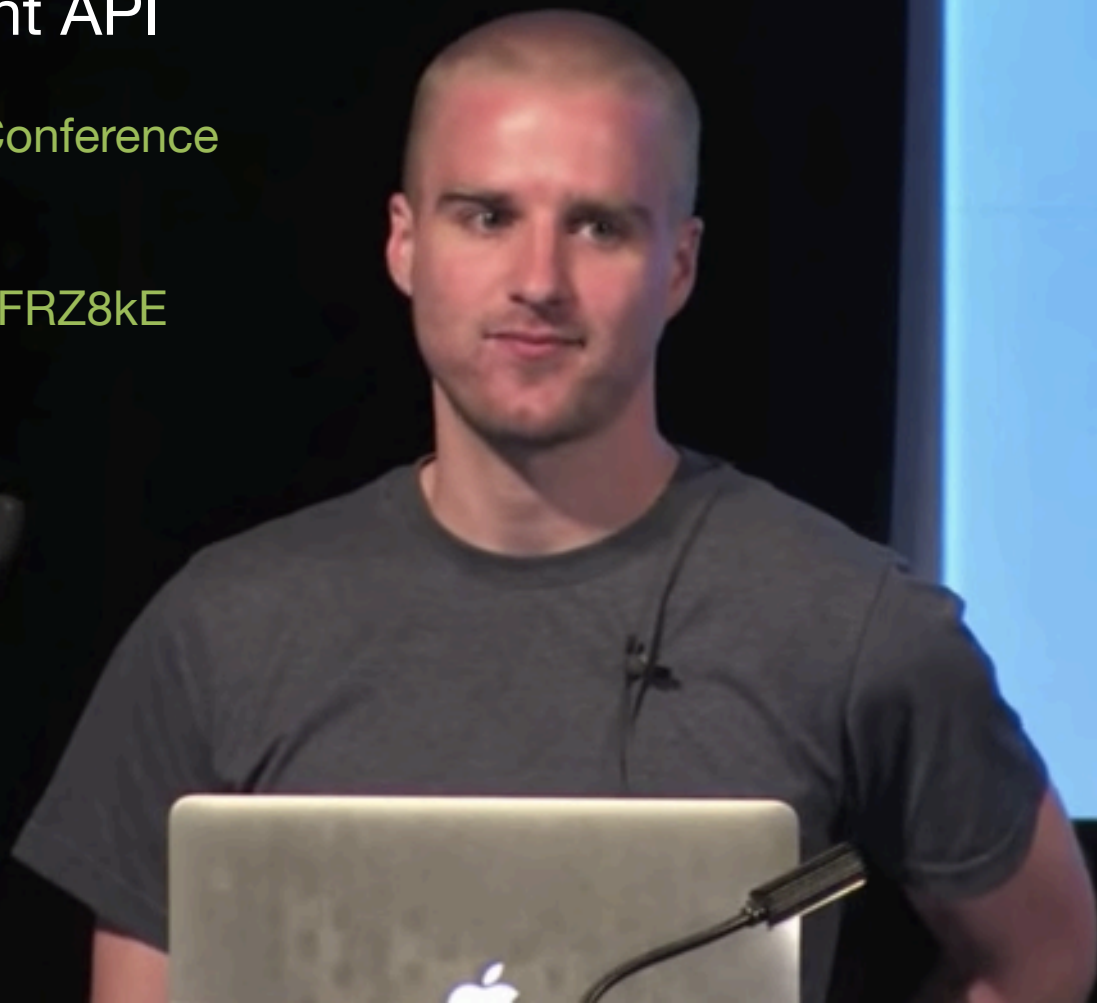
A Component API

Ian Feather

Front End Ops Conference

May 2014

youtu.be/XNoX1FRZ8kE

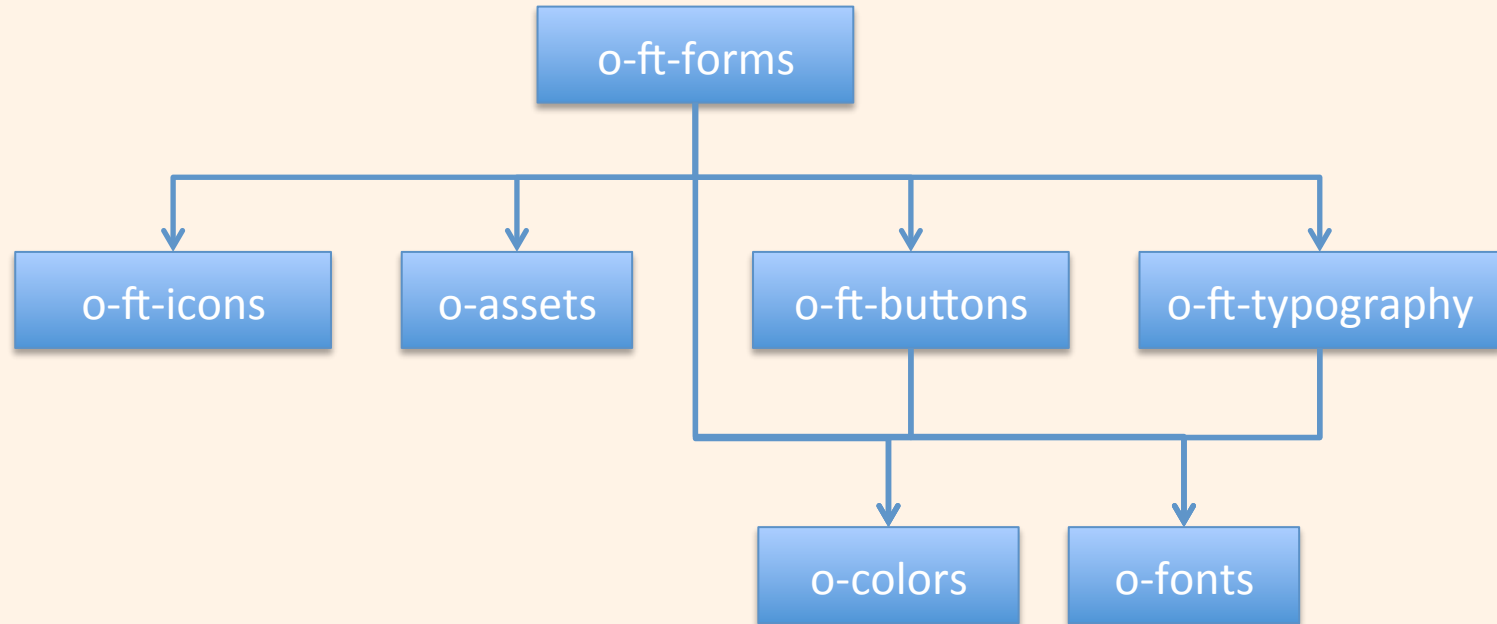




Origami

Component dependencies

Start with primitives, build on them to create higher level components



[All components »](#)

o-ft-forms

0.11.0 ✓ ↻

Forms module

[Jump to: Demos](#) [Quick start](#) [Component information](#) [Documentation](#)

text-inputs

Text input

prompt text ie password needs 6 characters

Text input with valid entry

URL input :invalid

Please enter a valid url

Text input disabled

Text input (error)

Invalid entry

```

1. <div class="demo-column">
2.   <div class="o-ft-forms__field-group">
3.     <label class="o-ft-forms__label">Text input</label>
4.     <small class="o-ft-forms__additional-info">prompt text ie password needs 6 characters</small>
5.     <input type="text" placeholder="placeholder" class="o-ft-forms__field"></input>
6.   </div>
7.   <div class="o-ft-forms__field-group o-ft-forms--valid">
8.     <label class="o-ft-forms__label">Text input with valid entry</label>
9.     <input type="text" placeholder="placeholder" class="o-ft-forms__field o-ft-forms__field--valid" value="Field value"></input>
10.  </div>
  
```

Show/hide demos

- text-inputs
- select-boxes
- textareas
- radios
- checkboxes
- prefix-suffix
- global-errors
- section-errors

Set demo options

- Show transparency checkerboard

```

HTML -
1 <!DOCTYPE html>
2 <!--[if IE 7]> <html class="o-useragent-ie7 o-hoverable-on"> <![endif
3 <!--[if IE 8]> <html class="o-useragent-ie8 o-hoverable-on"> <![endif
4 <!--[if gt IE 8]><!--> <html class="o-hoverable-on"> <!--<![endif]>>
5 <head>
6 <meta charset="utf-8">
7 <title>o-ft-forms: text-inputs demo</title>
8 <meta name="viewport" content="initial-scale=1.0, width=device-width">
9 <style>body { margin: 0; }.demo-js .o--if-nojs { display: none; }</style>
10 <link rel="stylesheet" href="//build.origami.ft.com/bundles/css?modules=c
11 </head>
12 <body class="">
13 <script>(function(d) {var b = d.getElementsByTagName('body')[0];b.className
14 |
15 <div class="demo-column">
16 <div class="o-ft-forms__field-group">
17 <label class="o-ft-forms__label">Text input</label>
18 <small class="o-ft-forms__additional-info">prompt text ie password ne
19 <input type="text" placeholder="placeholder" class="o-ft-forms__field
20 </div>
21 <div class="o-ft-forms__field-group o-ft-forms--valid">
22 <label class="o-ft-forms__label">Text input with valid entry</label>
23 <input type="text" placeholder="placeholder" class="o-ft-forms__field
24 </div>
25 <div class="o-ft-forms__field-group o-ft-forms--error">
26 <label class="o-ft-forms__label">URL input :invalid</label>
27 <input type="url" placeholder="placeholder" class="o-ft-forms__field"
28 <div class="o-ft-forms__errortext">Please enter a valid url</div>
29 </div>
30 </div>
31 <div class="demo-column">
32 <div class="o-ft-forms__field-group">
33 <label class="o-ft-forms__label">Text input disabled</label>
34 <input type="text" placeholder="placeholder" class="o-ft-forms__field
35 </div>
36 <div class="o-ft-forms__field-group o-ft-forms--error">
37 <label class="o-ft-forms__label">Text input (error)</label>
38 <input type="text" placeholder="placeholder" class="o-ft-forms__field
39 <div class="o-ft-forms__errortext">Invalid entry</div>
40 </div>
41 </div>
42
43
44 <script src="//registry.origami.ft.com/embedapi?autoload=resize"></script
45 </body>
46 </html>

```

Output

Text input
prompt text ie password needs 6 characters

placeholder

Text input with valid entry
Field value

URL input :invalid
hp://invalid.com
Please enter a valid url

Run with JS Auto-run JS

Text input disabled
Field value

Text input (error)
Field value
Invalid entry

Build service

A full build process for components' CSS and JavaScript, available as a service

```
<link rel="stylesheet" href="//build.origami.ft.com/bundles/css?modules=o-grid@^2.3.1,o-ft-forms@^1.2.0">
```

1. Install grid and forms modules
2. Install all their dependencies
3. Run the build process
4. Minify the CSS output
5. GZip it & cache it
6. Serve it through a CDN

Ultimate front-end component system

Find out more about the FT Origami project at origami.ft.com

1. Separate repos per component with package management
2. Convention based
3. Registry with auto-discovery of components
 1. Built in practical demos of each component
 2. One click to get a JSBin playground
 3. Demos embeddable in other docs
4. Standard build process based on `bower/sass/browserify`
5. Build-on-demand as a service

A photograph of a gas station at sunset. The sky is a deep, vibrant orange-red. The gas station's canopy is illuminated from within, and two bright lights are mounted on top. Several gas pumps are visible, with the number '66' on them. In the background, there are utility poles, traffic lights, and a few cars on a road. The word "Services" is written in a large, white, sans-serif font in the bottom left corner.

Services

Original: 2MB



1MB



0.3MB



Lossy compression of true color PNG images

Kornel Lesinski, 11:50am in 212



I come with a polyfill for classList!

Me too

Item One
Item Two
Item Three
Item Four

Name (job title)	▲ Age ⇅	Nickname	Employee ▼
Giacomo Gulizzoni Founder & CEO	37	Peldi	<input type="radio"/>
Marco Botton Tuttofare	34		<input checked="" type="checkbox"/>
Mariah Maclachlan Better Half	37	Patata	<input type="checkbox"/>
Valerie Liberty Head Chef)	Val	<input checked="" type="checkbox"/>
Guido Jack Gulizzoni	6	The Guide	<input type="checkbox"/>

Snap.

Polyfills as a service?

Using Polyfills at scale is hard, here's why:

1. Don't know you need one
2. Don't know which one to use
3. Can't avoid shipping many copies of the same polyfill
4. Have to ship the polyfill even to browsers that have the feature

About[Browsers and features](#)[API reference](#)[Live examples](#)[Usage stats](#)[Contributing](#)

Upgrade the web. Automatically.

The polyfill service selectively bundles browser polyfills based on the **User-Agent** header supplied in a request, with the intention of allowing JavaScript and CSS developers to use modern standards in legacy user agents that do not natively support the standard. Think of it like a pair of glasses for your aging browser.

Put this in the **<head>** of your HTML document:

```
<script src="https://cdn.polyfill.io/v1/polyfill.min.js"></script>
```

The polyfill service is developed and maintained by a community of contributors led by a team at the [Financial Times](#). It evolved from a previous service developed by [Jonathan Neal](#), and our [cdn.polyfill.io](#) domain routes traffic through [Fastly](#), which makes it available with global high availability and superb performance no matter where your users are.



[About](#)**► Browsers and features**[API reference](#)[Live examples](#)[Usage stats](#)[Contributing](#)

Features and browsers supported

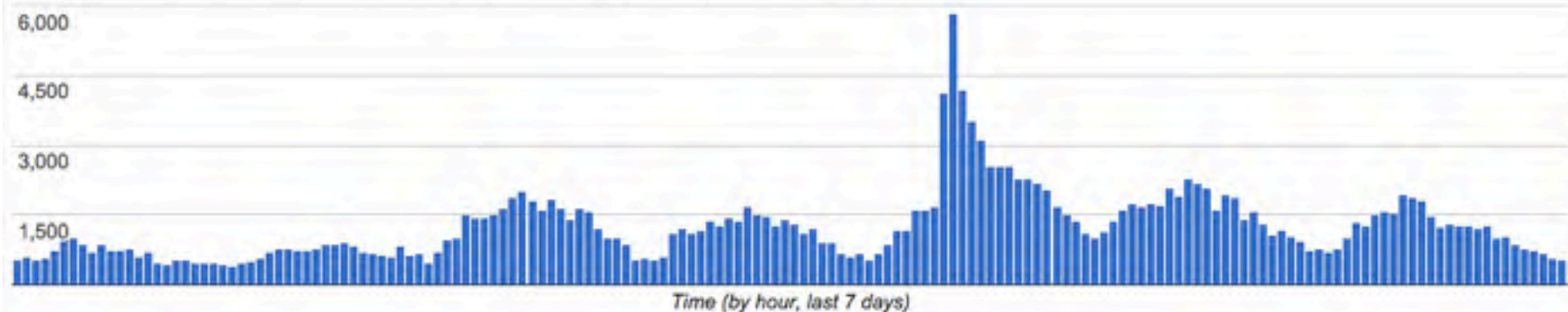
We test browser support with a test suite for each feature. A browser is considered compliant only if it passes all the tests, so this is a reasonably comprehensive test rather than a naive feature-detect. To view the test suite for a feature in the browser you're using right now, click the feature name. The results below are generated using browsers hosted by [Sauce Labs](#), and show only the lowest version tested with a given result (for full test results see [compat.json](#)).

Key: [Feature not tested](#), [Feature supported with Polyfill service](#), [Feature supported natively](#)

	IE	Firefox	Chrome	Safari	iOS Safari
Array.from 0.6KB Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1
Array.isArray 0.2KB ★ Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1
Array.of 0.2KB Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1
Array.prototype.contains 0.4KB Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1
Array.prototype.every 0.4KB ★ Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1
Array.prototype.filter 0.4KB ★ Tests Source	6 7 8 9 10 11	3.6 20 25 31 32 beta	26 32 37 38 beta	5 6 7	7.1

Traffic volume

This chart shows the number of requests we have served per hour, over the last 7 days:



Mean global response time (ms)



Cache performance



Uptime

Starting at	Service was	For
8 Nov 2014 08:48	UP	7 days

Polyfill service for everyone

- Minified and GZipped
- HTTPS
- Best practice caching
 - Fastly CDN
 - Stale-while-revalidate
 - Cachable in browser
- Comprehensive test suite verified in 26 browsers on Travis CI using Sauce Labs
- Permissive CORS
- Published uptime and performance metrics
- Open source, run it yourself, or use as a node module



One month free premium access for any
successful pull request

cdn.polyfill.io



Find me online:

email: andrew@labs.ft.com

twitter: [@triblondon](https://twitter.com/@triblondon)

web: labs.ft.com

We're hiring: labs.ft.com/jobs