

Microsoft Edge et développement web

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Agenda



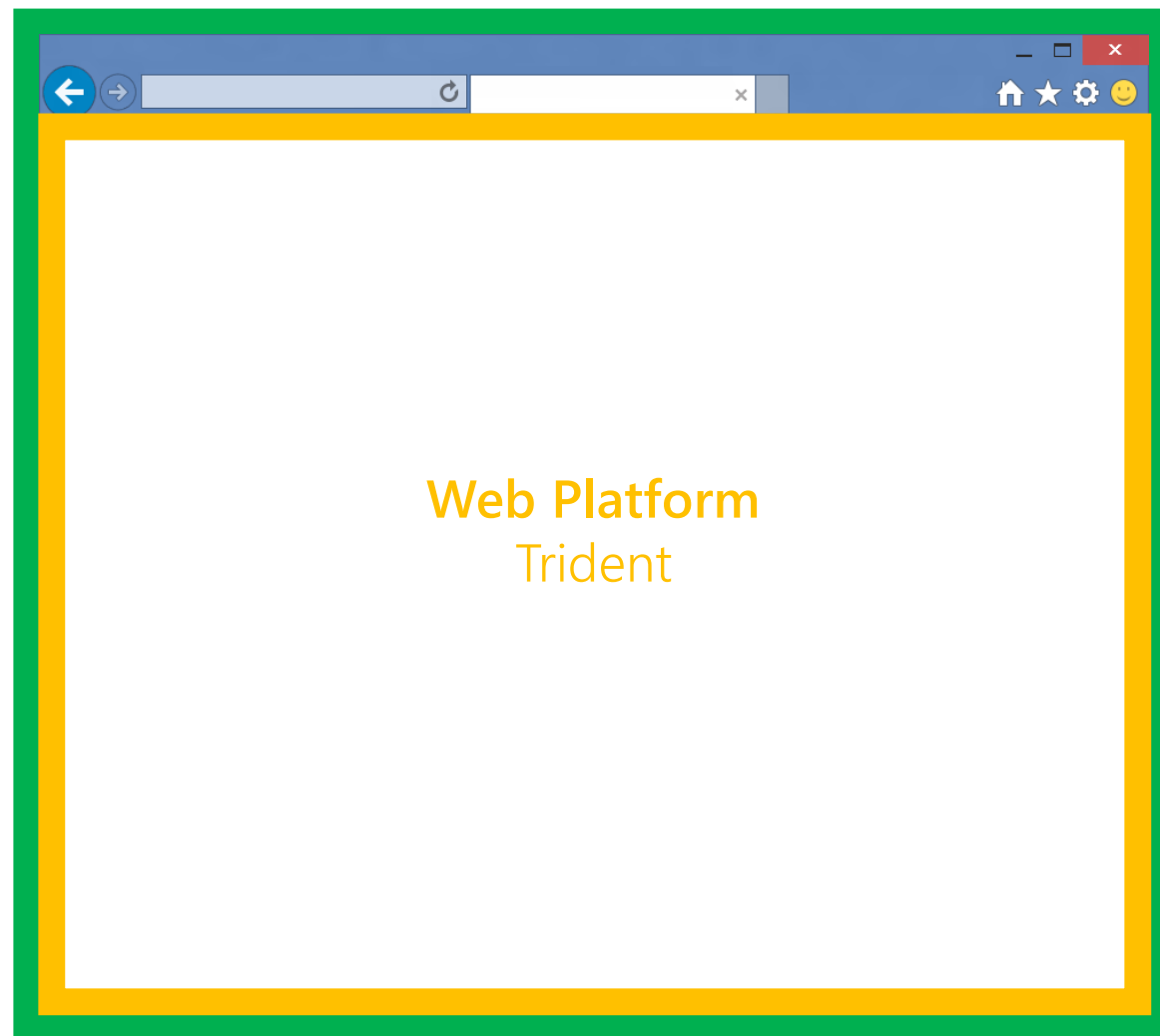
Pourquoi un nouveau moteur?

Interopérabilité dans un web moderne

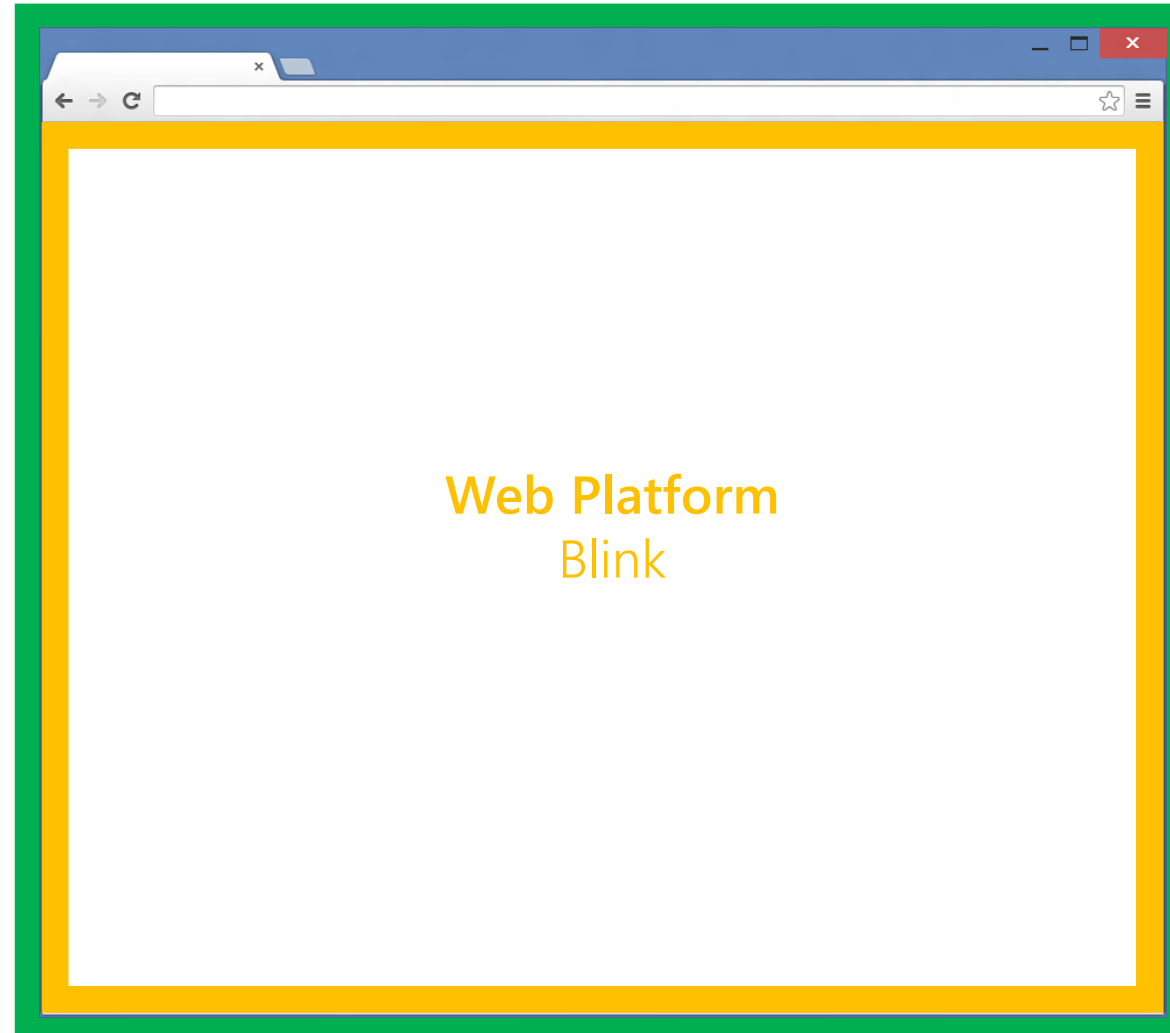
Nouvelles features

Pourquoi un nouveau moteur?

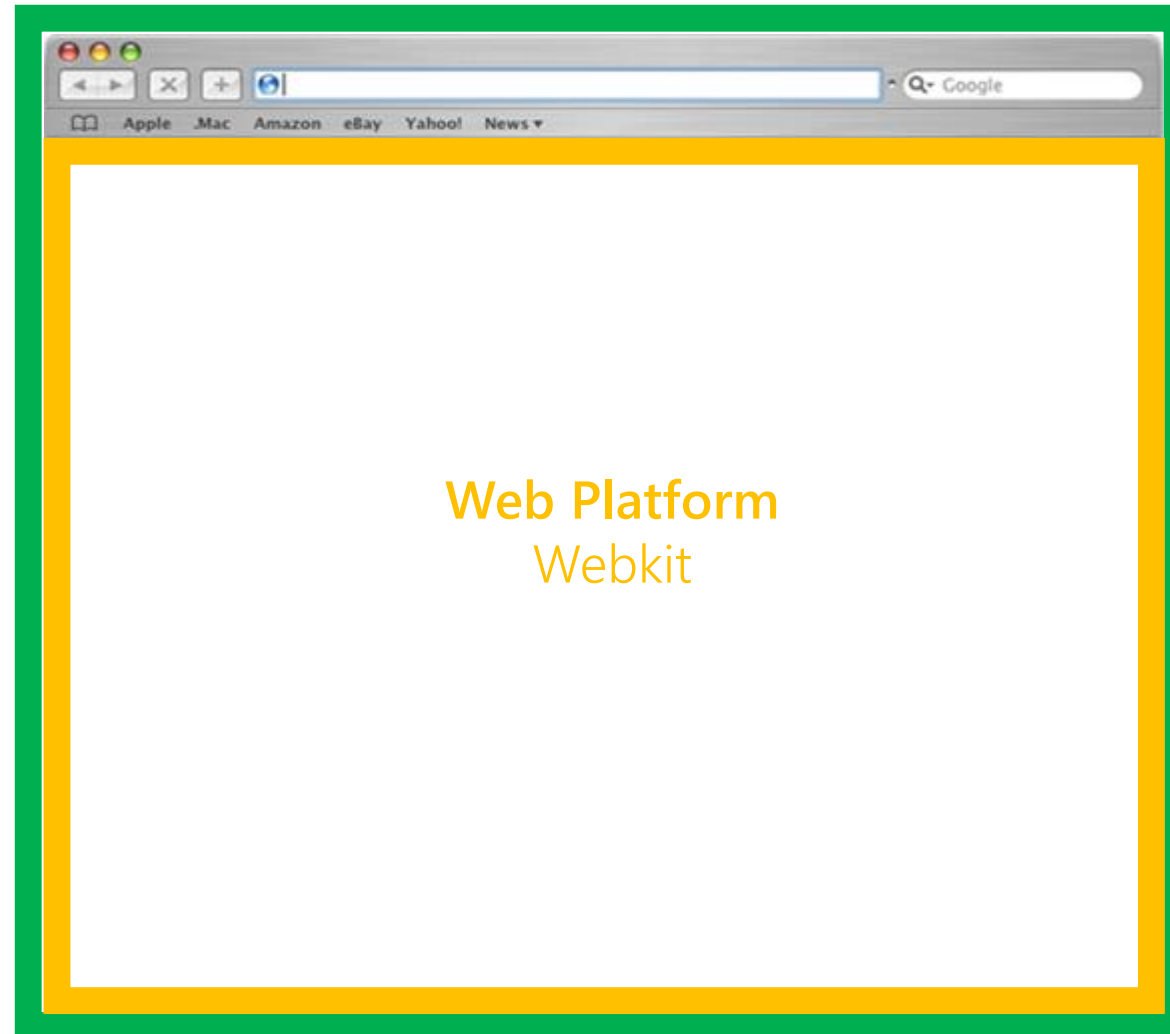
Navigateur
Internet Explorer



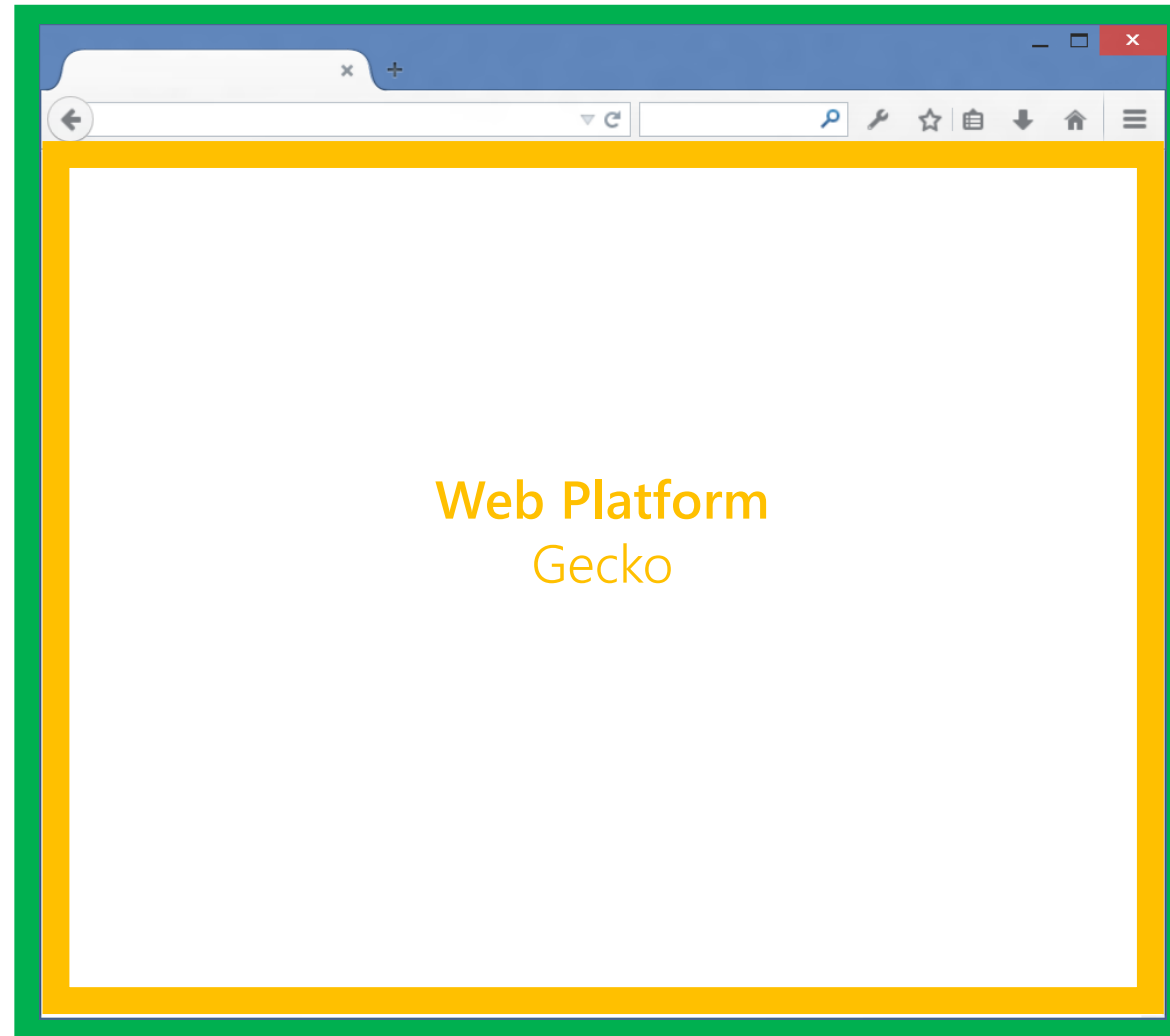
Navigateur
Chrome



Navigateur
Safari

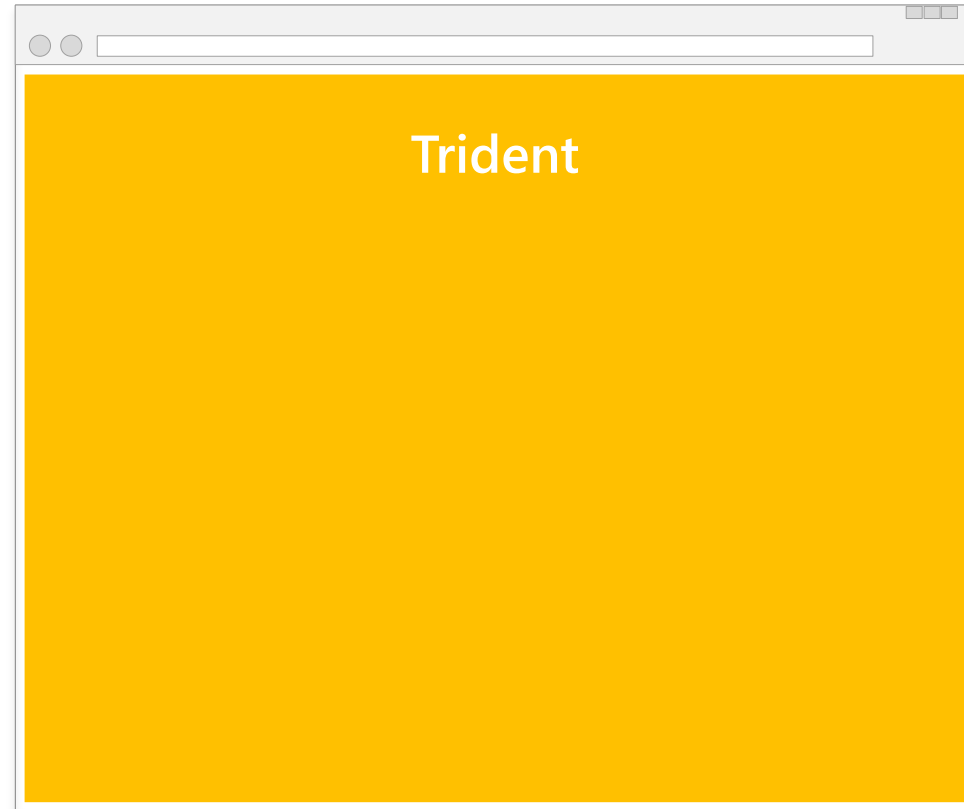


Navigateur
Firefox



1995

2015



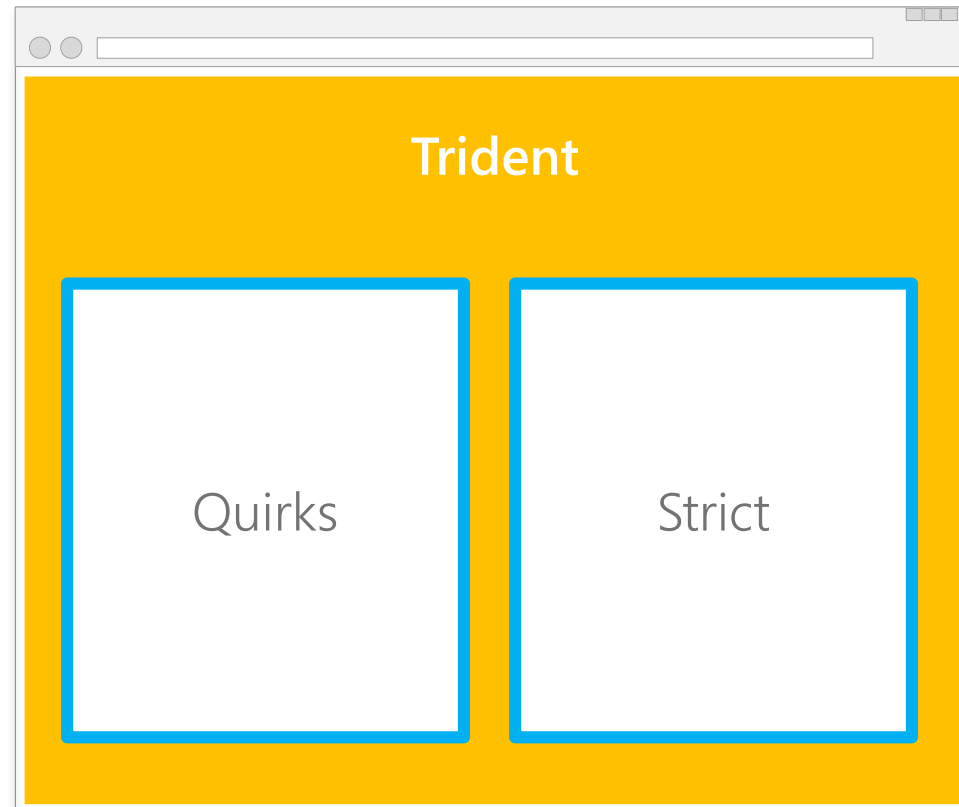
HTML4, ES3, CSS2

1995

2015



!DOCTYPE



HTML4, ES3, CSS2

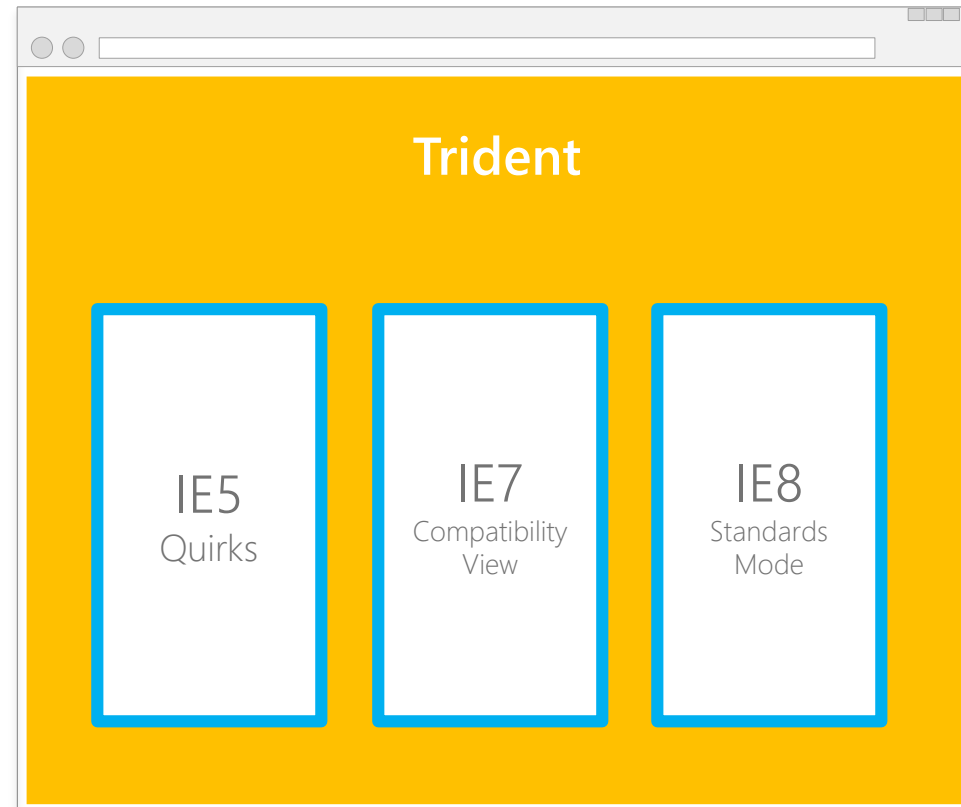
CSS2.1

1995

2015



!DOCTYPE
x-ua-compatible



HTML4, ES3, CSS2

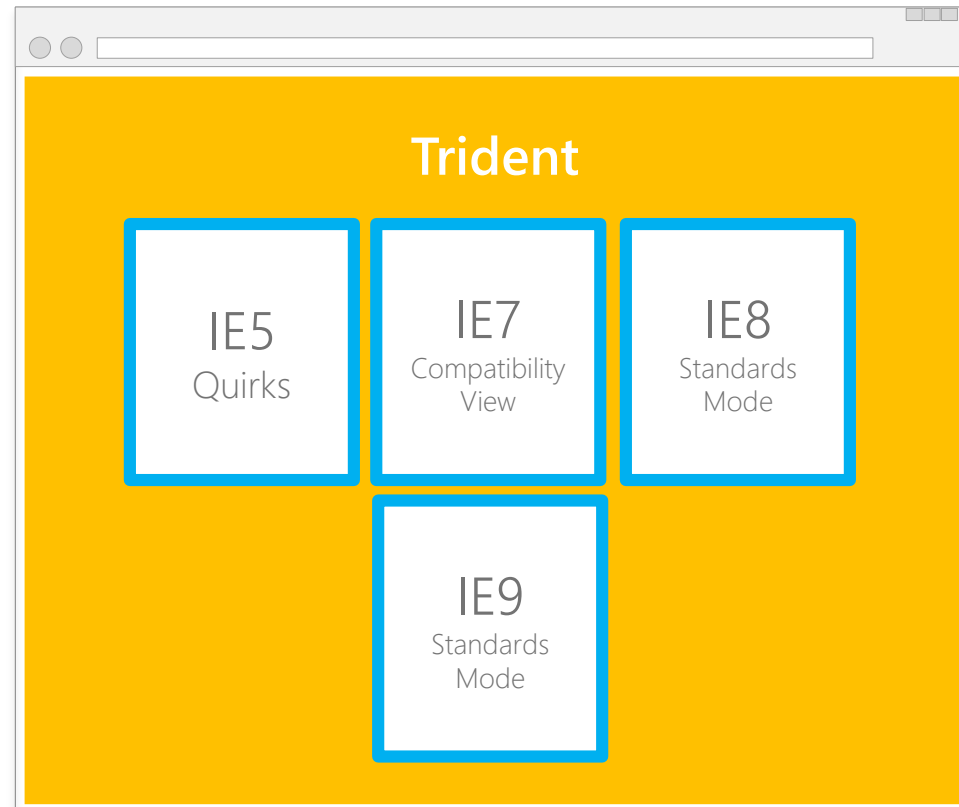
CSS2.1 HTML5, SVG, ES5

1995

2015



!DOCTYPE
x-ua-compatible



HTML4, ES3, CSS2

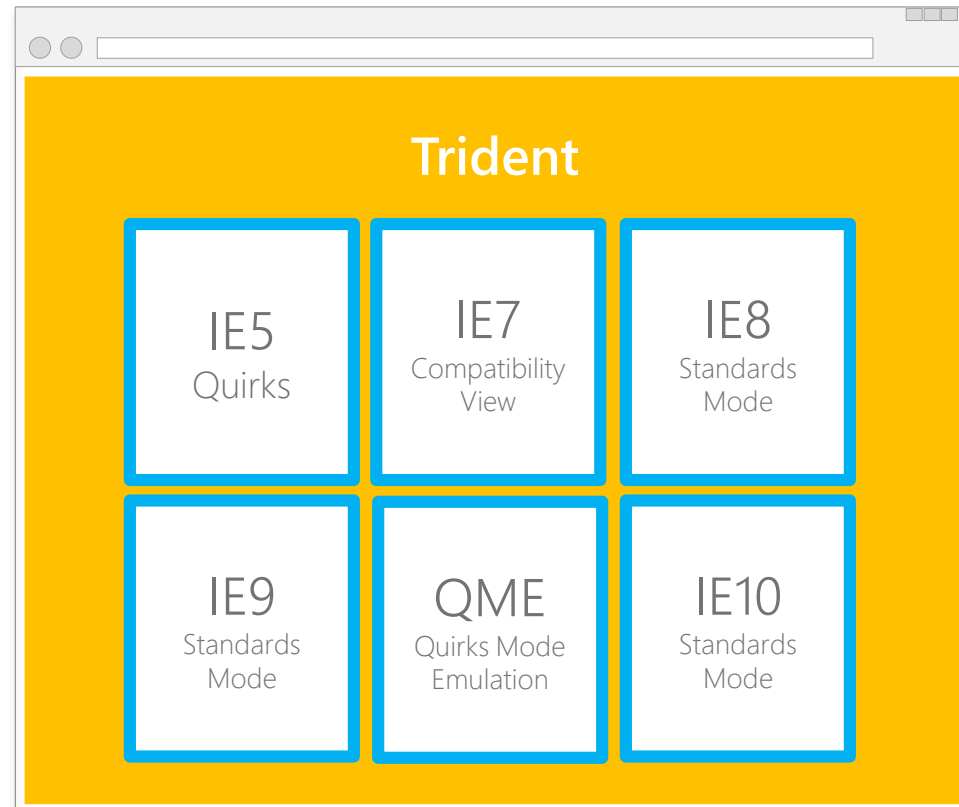
CSS2.1 HTML5, SVG, ES5, CSS3

1995

2015



!DOCTYPE
x-ua-compatible



Legacy Web
HTML4, ES3, CSS2
CSS2.1

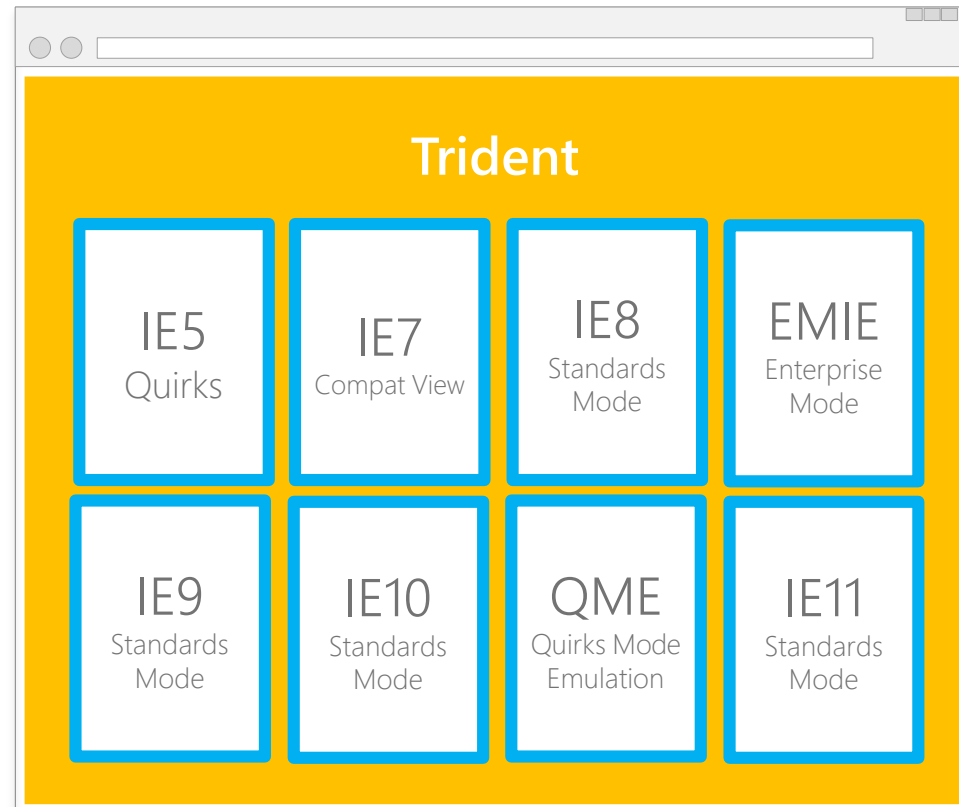
Modern Web
HTML5, SVG, ES5, CSS3

1995

2015



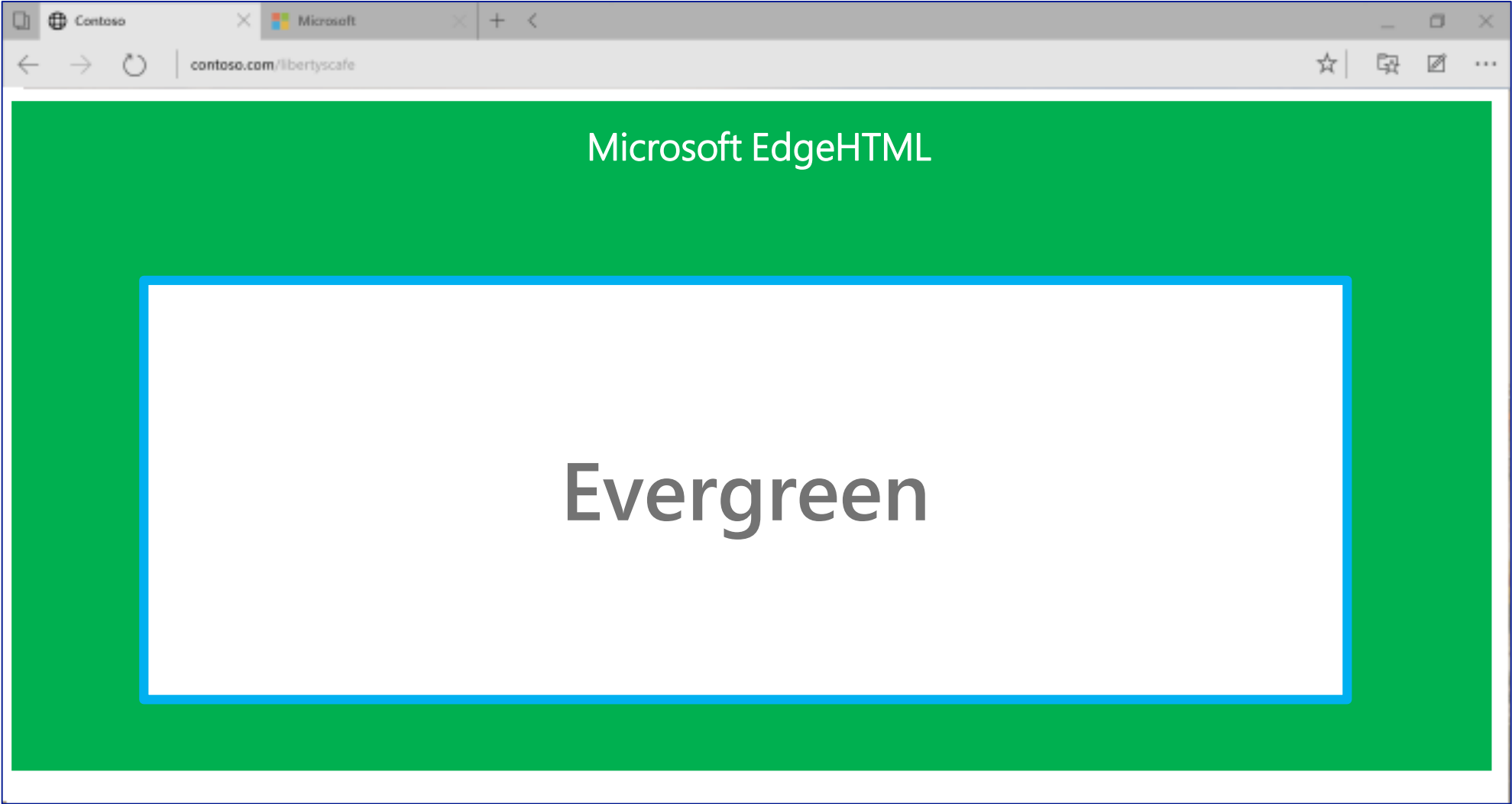
!DOCTYPE
x-ua-compatible

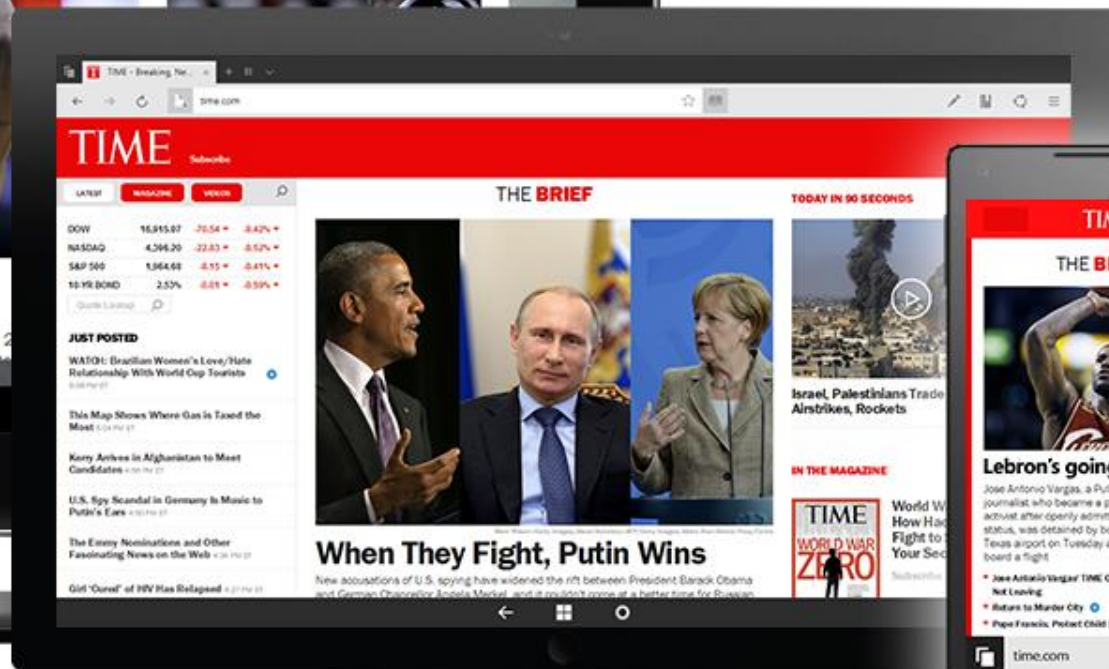
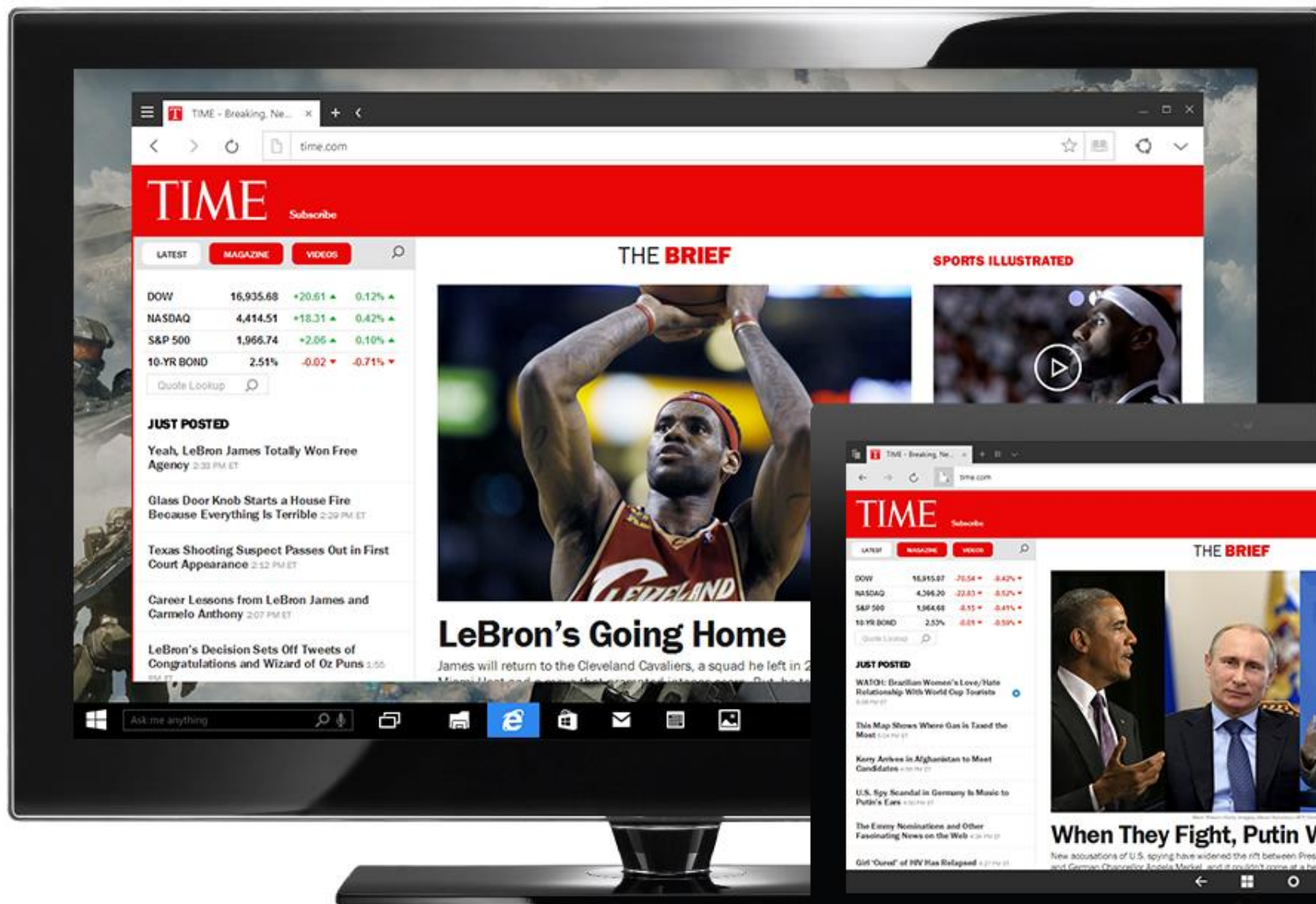


Pendant ce temps...

- Chrome, Firefox, Opera and Safari sont “evergreen”
 - Fréquentes mises à jour
 - Pas besoin de supporter different mode de documents

Microsoft Edge





Intéropérabilité dans un web moderne

Le web devrait juste marcher
(mais parfois c'est pas le cas...)

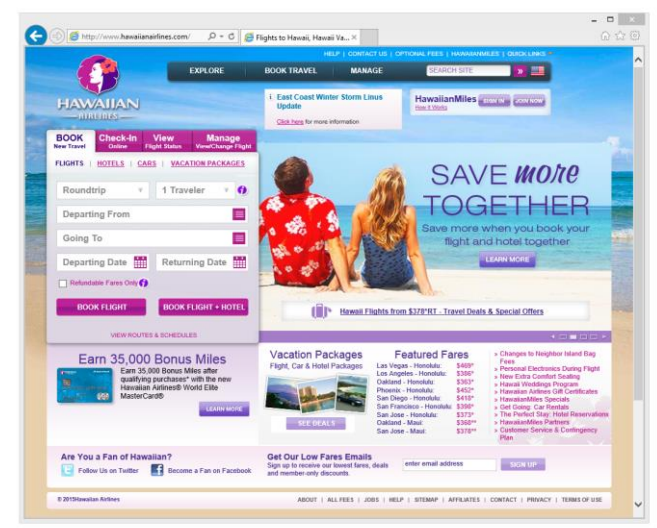
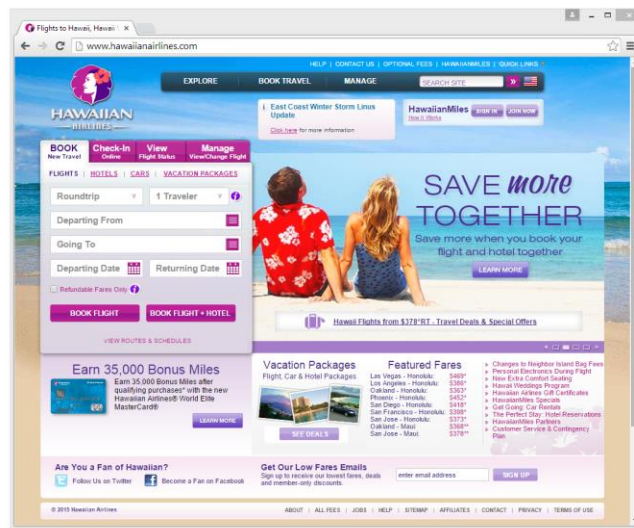
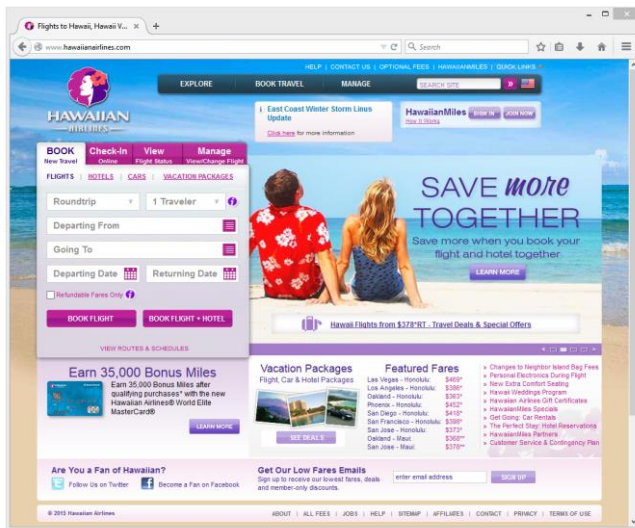
Le web est sur un nombre de devices énorme

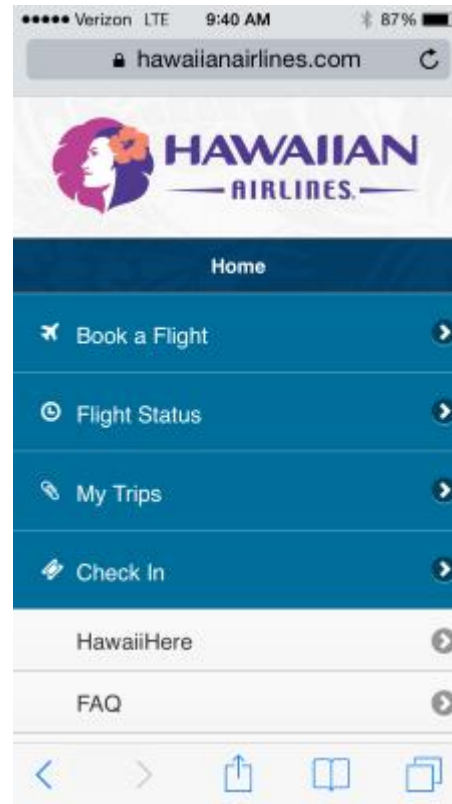


Le rêve: écrire une fois, fonctionner partout

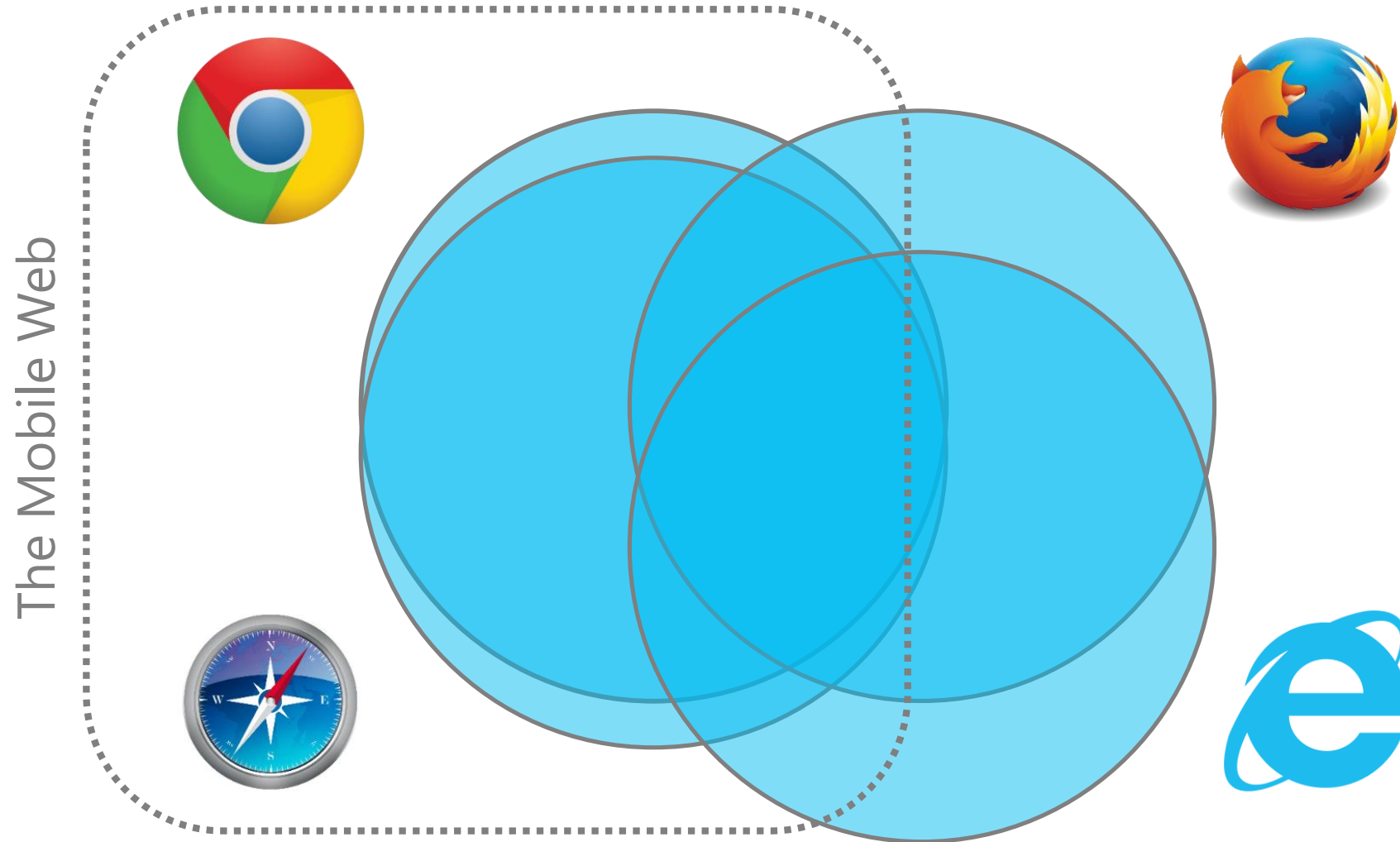
Faire un navigateur web : les specs...

[illegible]

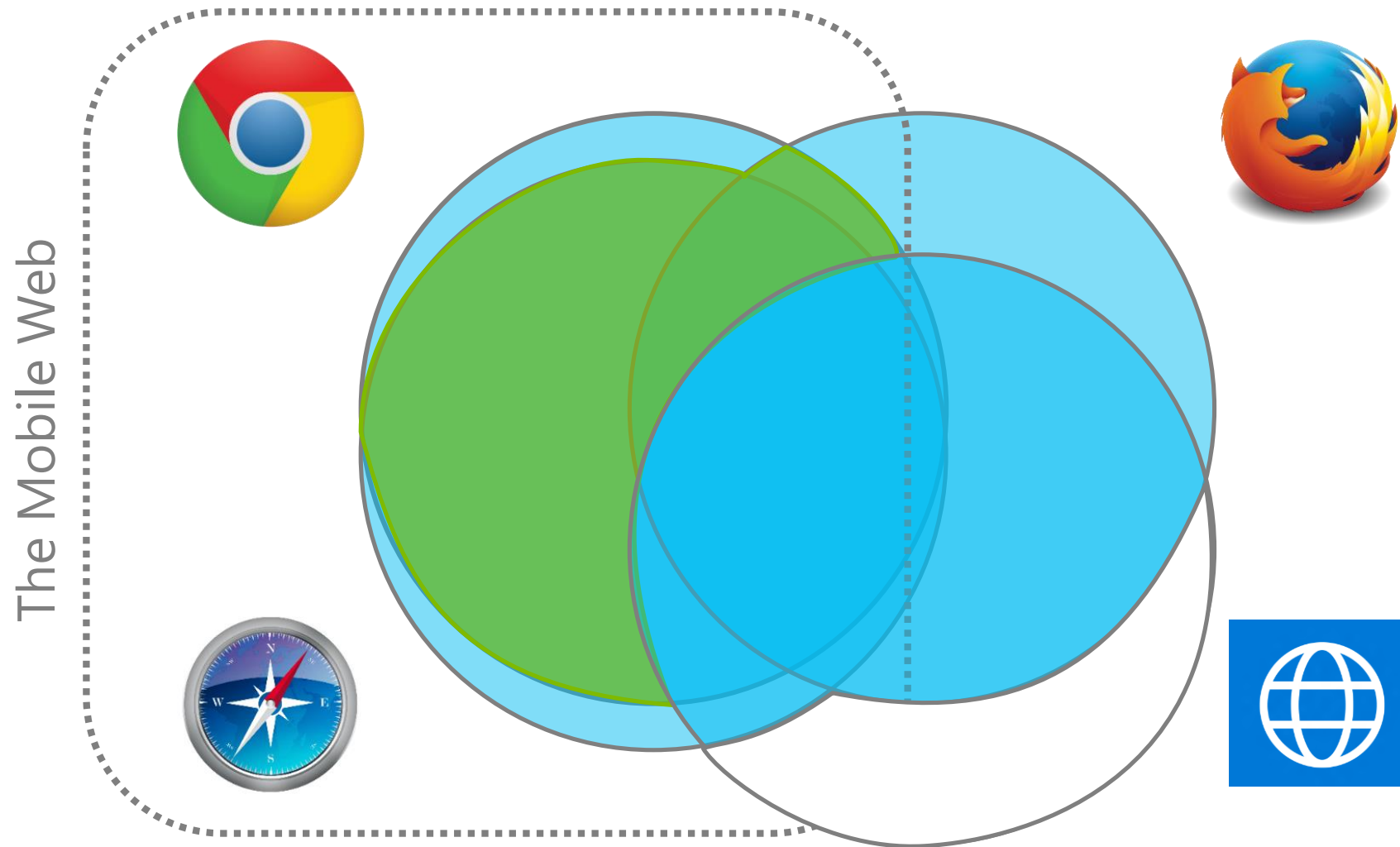




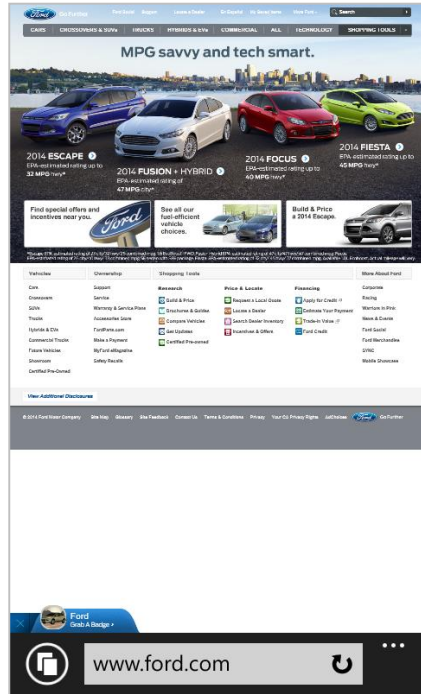
Intéropérabilité



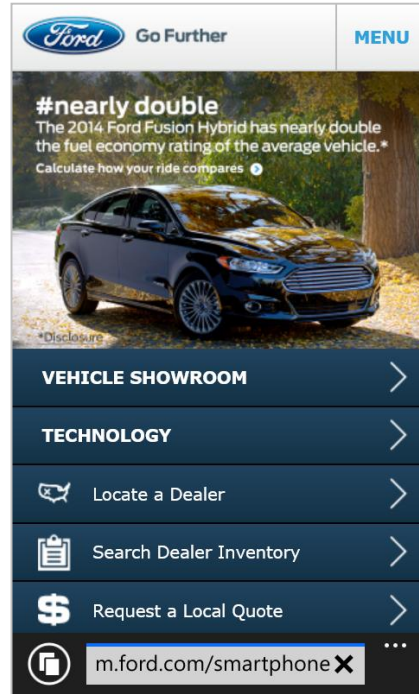
Intéropérabilité



User Agent pour le mobile



before



after

Problème: Certains serveurs web demandent Android ou iOS pour rediriger vers la version mobile

‘Skeleton key’ user agent:

Mozilla/5.0 (ARM; Mobile) **like Android**) **like iPhone** OS 7_0_3 Mac OS X WebKit/537.36 (KHTML, like Gecko) **Chrome/32.0.1700.99 Mobile Safari** /537.36

User-Agent Strings



Mozilla/5.0 (Windows NT 10.0; WOW64; rv:35.0) Gecko/20100101 Firefox/35.0



Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_1) AppleWebKit/600.1.25 (KHTML, like Gecko) Version/8.0 Safari/600.1.25



Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/40.0.2214.93 Safari/537.36



Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/39.0.2171.71 Safari/537.36 Edge/12.0

User-Agent Strings



Mozilla/5.0 (Windows NT 10.0; WOW64; rv:35.0) Gecko/20100101 Firefox/35.0



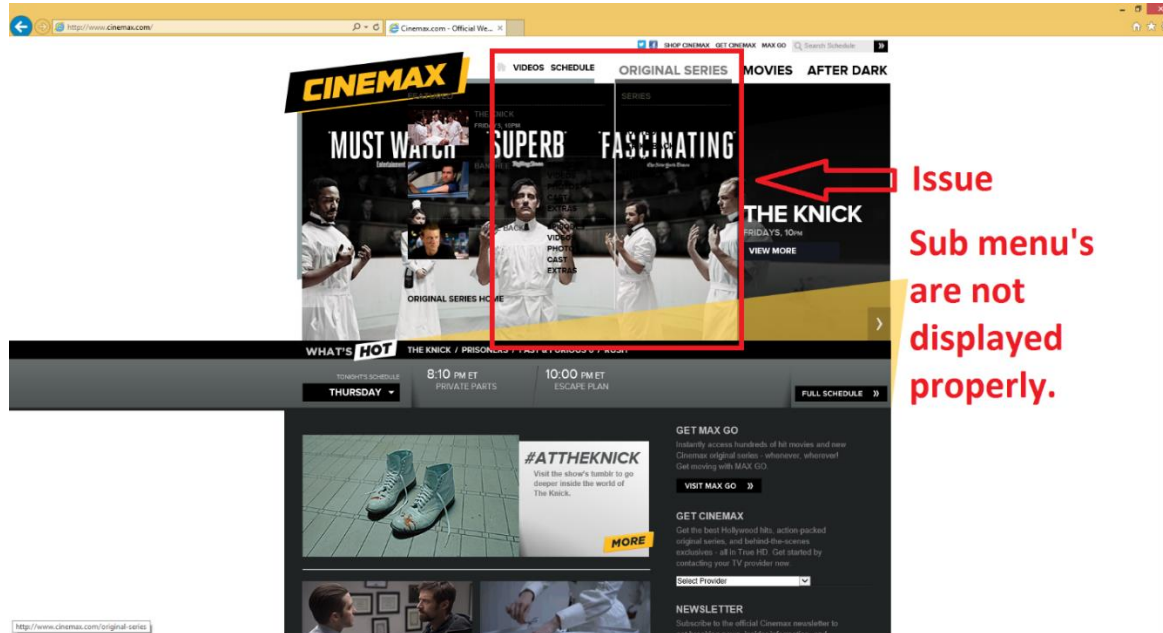
Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_1) AppleWebKit/600.1.25 (KHTML, like Gecko) Version/8.0 Safari/600.1.25



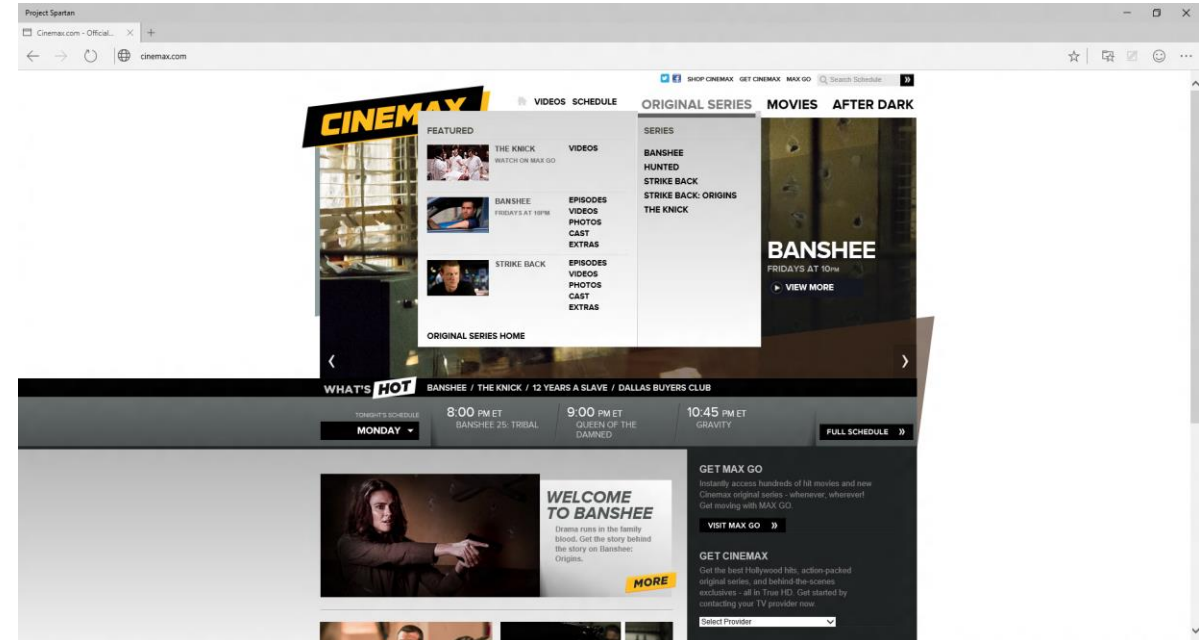
Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/40.0.2214.93 Safari/537.36



Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/39.0.2171.71 Safari/537.36 Edge/12.0



IE11 on Windows 8.1




Spartan:
With support for –webkit transitions


About:flags

Experimental Features

ms-appx-web://microsoft.windows.spartan/Assets/flags.htm

 Compatibility settings

☒ Use Microsoft compatibility lists

 Experimental features

Put on your safety goggles. These features are experimental and might lead to some unexpected browser behavior.

Styling

☒ Use a full stacking context for fixed position elements

☒ Improve performance by using independent composition for preserve-3d content

☒ Enable CSS filter property

Scrolling

☒ Use independent scrolling for mouse, keyboard, and scrollbar

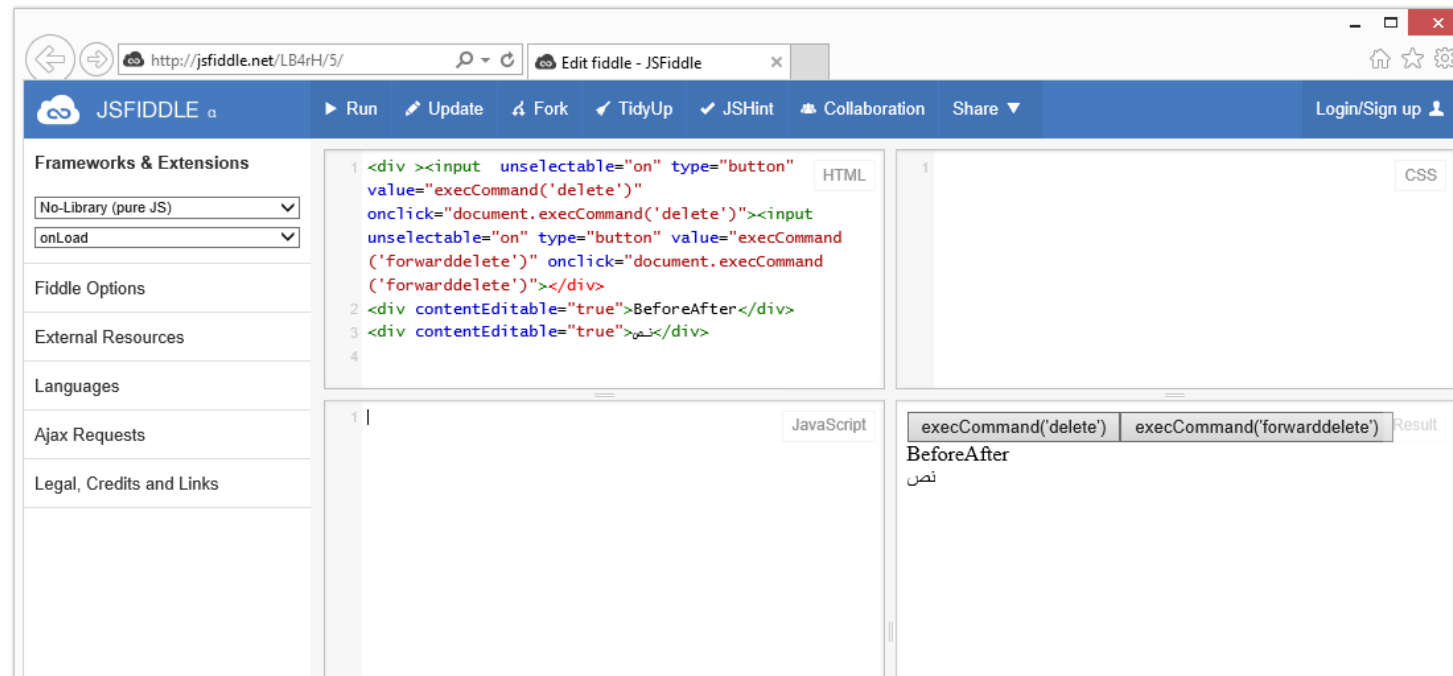
☐ Apply scroll properties to bodyElement instead of documentElement

Touch

Touch events

Comment mieux faire en tant que dev web?

- Faire de la detection de features
 - Pas de UA Sniffing ! 😊
 - Les navigateurs inconnus sont peut être de bons navigateurs
- Remontez les bugs aux navigateurs (avec reproductions)



Nouvelles features

Un moteur = updates plus fréquentes

Nouvelles HTML5 features et mises à jour

CSS

- @supports
- Flexbox standards update
- dppx unit
- transform-style: preserve-3d
- Filter effects

JavaScript

- ES6 Math, Number, String, RegExp & Object built-ins
- Arrow functions, Enhanced object literal, Template strings, Default, Rest, Spread
- Map, Set, Weakmap, __proto__, Proxies
- Let, Const, Promises, Classes

Storage & networking

- HTTP/2
- Content security policy
- Web Crypto API updates
- HSTS (HTTP Strict Transport Security)

DOM & Graphics

- SVG foreignobject
- SVG attribute animation
- Complete WebGL support
- DOM event constructors
- DOM Level 3 XPath

Media & RTC

- Media capture
- HLS
- WebAudio
- Video Tracks
- WAV Audio support

Input & Editing


- Touch events
- Pointer lock API
- Media Queries L4 - Interaction
- Selection API
- Gamepad API




Shipped
Preview Release
In development

Et beaucoup plus...



3000+ Interoperability Fixes, Preserve-3d, Touch Events, CSS Filter Effects, DOM Clipboard Support, HTML Drag and Drop, Web Audio, CSS Position Sticky, CSS @supports, CSS Flexbox, HTML Beacon, WebDriver, IndexedDB, WebCrypto, International Mixed Languages Support, CSS Grid, CSS Variables, srcset, <picture> element, Web Workers Update, DOM4 Events, Font Loading, BDI, Cross-domain, HLS Manifest, Block Ellipsis, WAV, @rules, CSS Text(), CSS Border Logical, Logical Box Model, DOM Gamepad API, DOM FileSystem API, HTML <date> element, HTML <keygen> element, HTML <main> element, HTML <output> element, HTML <summary> element, HTML <detail> element, HTML <time> element, Native PDF, AppCache, SVG Hosting, Mutation Observers, HTML bidirectional, HTML Speech API, SVG animations, SVG transitions, SVG transforms, Canvas Path, Canvas Accessibility API, CSS Select Control, CSS Masking, CSS Clipping, Navigation Error Logging, CSS element(), CSS Shapes, ORTC, CSS Escape, Shared Workers, ES6 Modules, ES6 Promises, CSS Intrinsic & Extrinsic Sizing, Web Components, CSS Scoped Styles, HTTP 2.0, CSS Resize, WebGL, Canvas Blend Modes, CSS Interpolation, CSS Line Grid, CSS Line Box Contain, CSS Ruby, DOM Event Constructors, HTML Reverse, Server-Sent Events, Viewport APIs, Quota API, etc.

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Tools Platform Status Tech Preview Community MSDN Dev Center


Interop  Sort 


Features found: 193


 a[download] attribute

Under Consideration 

 Ambient Light Events

Under Consideration 


 Application Cache






IE10+ 


JS

Arrow function

The arrow (=>) provides a shorthand for the function keyword with lexical 'this' binding.


 Editor's draft





 90 Votes

JS

ASM.js

Under Consideration 

 Application Cache

IE10+ 

Microsoft Confidential

Ce qu'on peut faire avec un navigateur...



Quelques features...

- WebAudio
- Pointer events
- CSS filters
- Image srcset
- http/2

Donnez-nous vos feedback sur uservoice.modern.ie

2,650
votes

Vote

ASM.js

Performance options for a low-level subset of JavaScript, including recognition of the 'use asm' directive and ahead-of-time compilation.

<http://asmjs.org/spec/latest/>

11 comments · JavaScript · Flag idea as inappropriate...



WORKING ON IT

· IE Platform UserVoice Admin (Admin, Windows Developer) responded

<http://blogs.msdn.com/b/ie/archive/2015/02/18/bringing-asm-js-to-the-chakra-javascript-engine-in-windows-10.aspx>

99
votes

Vote

Show syntax errors in debugger

This feature would expose syntax errors to a developer who has a file open in the F12 debugger.

Proposed Design

- If a JavaScript file containing syntax errors is opened in the debugger the syntax error will have a red squiggle and there will be a warning glyph in the gutter

0 comments · F12 Developer Tools · Flag idea as inappropriate...



ON THE BACKLOG

· IE Platform UserVoice Admin (Admin, Windows Developer) responded

The item is on the backlog near the top and we hope to start on it soon, no dates yet though.

