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Omlouváme se, nemluvím česky

Thanks Google translate...



38 billion devices connected in 2020

ABI Research - 2013-05-09 - http://j.mp/38billion

TODO: add picture of full web devices

You should start with the web...







What you deserve



Built with the Web

Using HTML5, CSS3 and JavaScript

with a number of APIs

to build apps.





Adaptive App Search

- Type a word or subject you're interested in
- Find exactly what you want and more
- Get instant access or save apps to your phone



Discover more apps on the Firefox Marketplace

It's open source





Benefits of HTML5

- ✓ In-built distribution the Web
- Simple technologies used by a lot of developers
- Evolution of existing practices
- Open, independent, and standardized

Some facts

- 7 mobile operator & 4 hardware partners
- ZTE Open, Alcatel One Touch Fire, Geeksphone Keon,
 Geeksphone Peak, LG FireWeb...
- More to come: Huawei Y300, ZTE Open C, Alcatel One Touche
 Fire C & E & S...
- Aimed at emerging markets/low end market



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-

See other items

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Mouse over image to zoom



Item location: United States Ships to: Worldwide See exclusions

Payments: PayPal | See details

Delivery: Estimated between Fri. Jan. 17 and Thu. Jan. 23 Seller ships within 1 day after receiving cleared payment.

Returns: 14 days money back, buyer pays return shipping | Read details

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Featured Apps



Surfline Mo...
Free



ROTOGAMESQ Free



Fix-It Felix Free



Contactzilla Free



Firetext Free



VTCS 13
Free



View All »

Evernav Free

Popular



Twitter Free



New

Pasjans/Sol...
Free



SoundCloud Free



Loqui IM Free



Wikipedia Free



ConnectA2
Free



View All »

Wassap Free













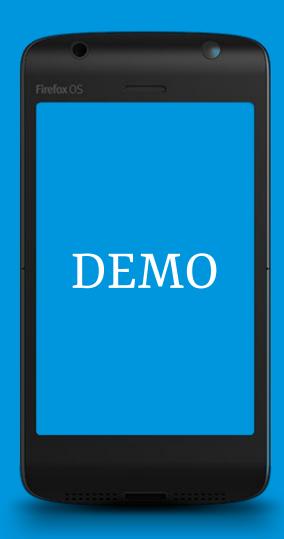


A Firefox OS app?

- Creating a hosted or packaged app
- Using
 - Vanilla HTML5
 - Librairies...
 - Regular API
 - Privileged API
 - Certified API

HTML5 + manifest (JSON) = Firefox OS app

```
"version": "42",
"name": "My amazing app",
"launch path": "/index.html",
"description": "My super amazing app do super amazing things",
"icons": {
  "16": "/images/logo16.png",},
"developer": {
  "name": "Frédéric Harper",
  "url": "http://outofcomfortzone.net",
"default locale": "en",
"permissions": {
  "geolocation": {
     "description": "Get the long/lat of the user"
```



Emberjs todomvc

Web APIs

Web APIs – Regular

- Alarm API
- Ambient light sensor
- Archive API
- Battery Status API
- Geolocation API
- IndexedDB
- Network Information API
- Notifications API
- Open WebApps
- Proximity sensor





Ambient Light Sensor

Ambient Light Sensor

```
window.addEventListener("devicelight", function (event) {
    // The level of the ambient light in lux
    // The lux values for "dim" typically begin below 50,
    // and the values for "bright" begin above 10000
    console.log(event.value);
});
```



Boilerplate – Ambient Light Sensor

Battery Status

Battery Status

```
var battery = navigator.battery;
if (battery) {
       var batteryLevel = Math.round(battery.level * 100) + "%",
       charging = (battery.charging)? "yes" : "no",
       chargingTime = parseInt(battery.chargingTime / 60, 10,
       dischargingTime = parseInt(battery.dischargingTime / 60, 10);
       battery.addEventListener("levelchange", setStatus, false);
       battery.addEventListener("chargingchange", setStatus, false);
       battery.addEventListener("chargingtimechange", setStatus, false);
```



Boilerplate – Battery status

Web APIs – Privileged

- Browser API
- Contacts API
- Device Storage API
- systemXHR
- TCP Socket API



Browser

Browser

Browser

```
addEventListener('mozbrowserloadstart', function(e) {
      //Do stuff
});
Possible values:
       "mozbrowserloadstart"
                                               "mozbrowserloadend"
       "mozbrowserlocationchange"
                                         "mozbrowsertitlechange"
       "mozbrowsericonchange"
                                               "mozbrowsersecuritychange"
       "mozbrowsercontextmenu"
                                               "mozbrowsererror"
       "mozbrowserkeyevent"
                                               "mozbrowsershowmodalprompt"
       "mozbrowseropenwindow"
                                               "mozbrowserclose"
```

Contacts

Contacts

```
var contact = new mozContact();
contact.init({name: "Tom"});
var request = navigator.mozContacts.save(contact);
request.onsuccess = function() {
       console.log("Success");
request.onerror = function() {
       console.log("Error")
```

Web APIs – Certified

- Camera API
- Idle API
- Mobile Connection API
- Network Stats API
- Permissions API
- Power Management API
- Settings API
- Time/Clock API
- Voicemail
- WebBluetooth



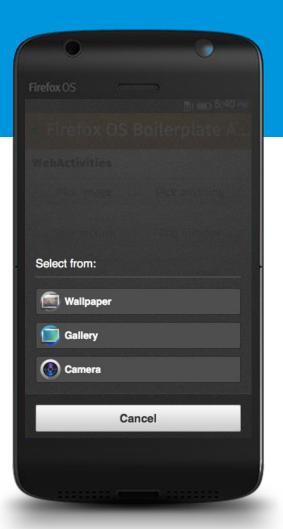
Web Activities

Web Activities

- browse
- configure
- costcontrol
- dial
- open
- pick
- record
- save-bookmark
- share
- view

Pick

```
var activity = new MozActivity({
    name: "pick",
    //Provide the data required
    //by the filter of the activity
    data: {
        type: "image/jpeg"
     }
});
```

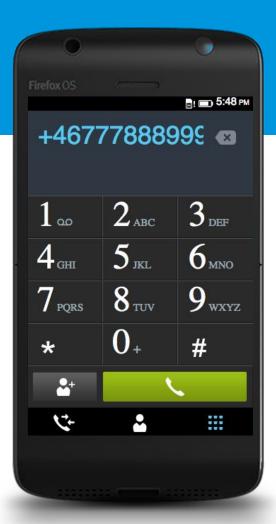


Pick

```
activity.onsuccess = function () {
  var img = document.createElement("img");
  if (this.result.blob.type.indexOf("image") != -1) {
    img.src = window.URL.createObjectURL(this.result.blob);
activity.onerror = function () {
  //error
```

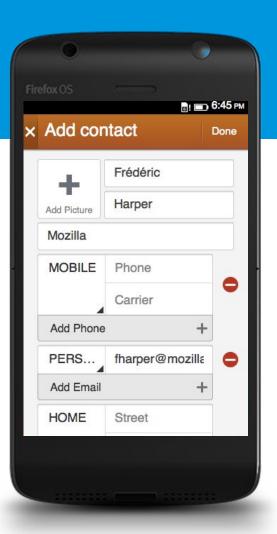
Dial

```
var call = new MozActivity({
    name: "dial",
    data: {
        number: "+46777888999"
    }
});
```



new webcontacts/contact

```
var newContact = new MozActivity({
  name: "new",
  data: {
    type: "webcontacts/contact",
     params: {
       givenName: "Frédéric",
       lastName: "Harper",
       email: "fharper@mozilla.com",
       company: "Mozilla"
});
```



Web Activity Received Handler

```
"activities": {
    "pick": {
        "filters": {
            "type": ["image/jpeg", "image/png"]
        },
        "disposition": "inline",
        "returnValue": true,
        "href": "/index.html#pick"
    }
}
```

Don't forget to handle it!

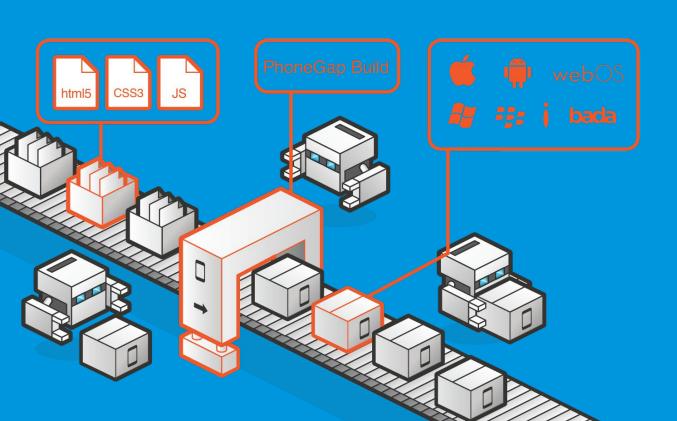
```
navigator.mozSetMessageHandler('activity', function(activityRequest) {
  var option = activityRequest.source;
  if (activityRequest.source.name === "pick") {
    // Do something to handle the activity
     if (picture) {
       activityRequest.postResult(picture);
     else {
       activityRequest.postError("Unable to provide a picture");
});
```



How to start



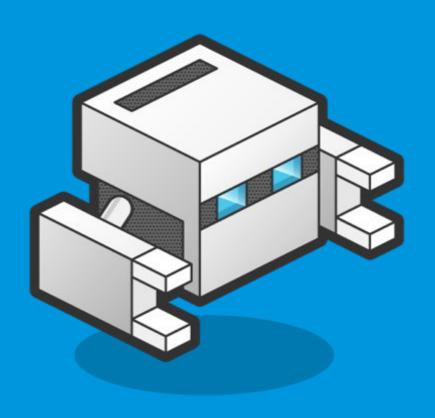
Cordova & Phonegap





API implementations

- Camera
- Contacts
- Device
- Device-motion
- Geolocation
- Orientation
- Vibration



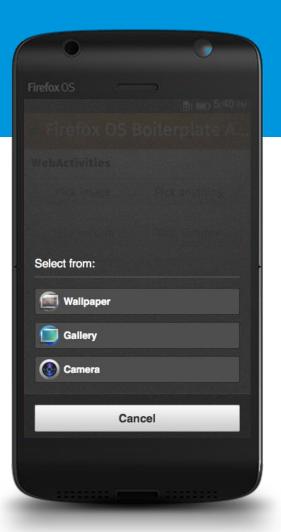
Get ready!

- \$ sudo npm install -g cordova
- \$ cordova create hello com.example.hello HelloWorld
- \$ cd hello
- \$ cordova platform add firefoxos
- \$ cordova prepare firefoxos

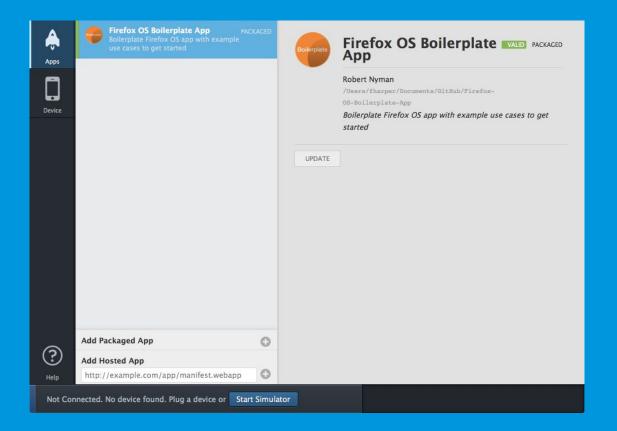
Camera API

\$ cordova plugin add org.apache.cordova.camera

```
//Cordova code
navigator.camera.getPicture(function (src) {
    var img = document.createElement('img');
    img.id = 'slide';
    img.src = src;
    }, function () {}, {
        destinationType: 1
});
```

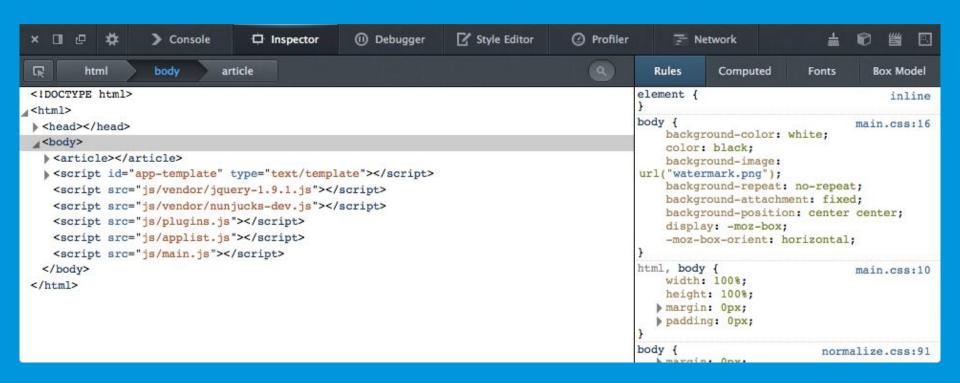


Firefox OS App Manager + Simulator (1.2+)





Firefox Web Developer Tools





How to debug a Firefox OS app



ZONES

WEB PLATFORM

TOOLS

DEMOS



Shared knowledge for the Open Web



MDN MOZILLA DEVELOPER NETWORK

Web APIs & DOM

HTML

CSS

JavaScript

more...



ZONES

App Center

Firefox

Firefox OS

Persona



DEVELOPER TOOLS

Firefox OS Simulator

Page Inspector

JavaScript Debugger

Web Console

more...



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Develop Firefox for Android









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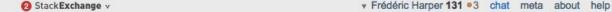
The making of a hack – Media Query Mario



BrowserQuest – a massively multiplayer HTML5 (WebSocket + Canvas) game experiment



Creating thumbnails with drag and drop and HTML5 canvas





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- Dev Tools on the Mozilla Developer Network (MDN)



Firefox OS is an open source HTML5 based operating system developed for mobile devices by the Mozilla Corporation. Firefox OS is designed to run apps that are implemented in HTML, JavaScript, and CSS

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0 votes 0

Rendering issue while scrolling in a Firefox OS app

I have a Firefox OS app that displays images and text of different sizes (Titles and content). The app used to work fine in both simulator and device, but today it started to render oddly every time I ...

javascript jquery scrolling rendering [7] firefox-os

asked 1 hour ago

Mavi 5 • 2

5 02

answers 6 views

0 votes

What are the system fonts of Firefox OS?

Fira Sans seems to be the default font, but I'm wondering what other fonts are on the device that can be used by apps via CSS.



Christoph Ono

asked 15 hours ago

56 02

150 questions tagged



[firefox-os]

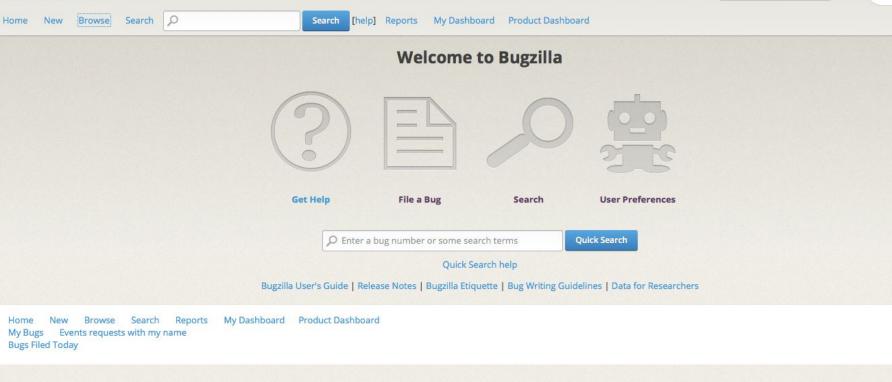
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Senior Software Architect **Discovery Communications** New York, NY

Softwareentwickler/-in in Rastatt (bei Karlsruhe) LAWO Informationssysteme



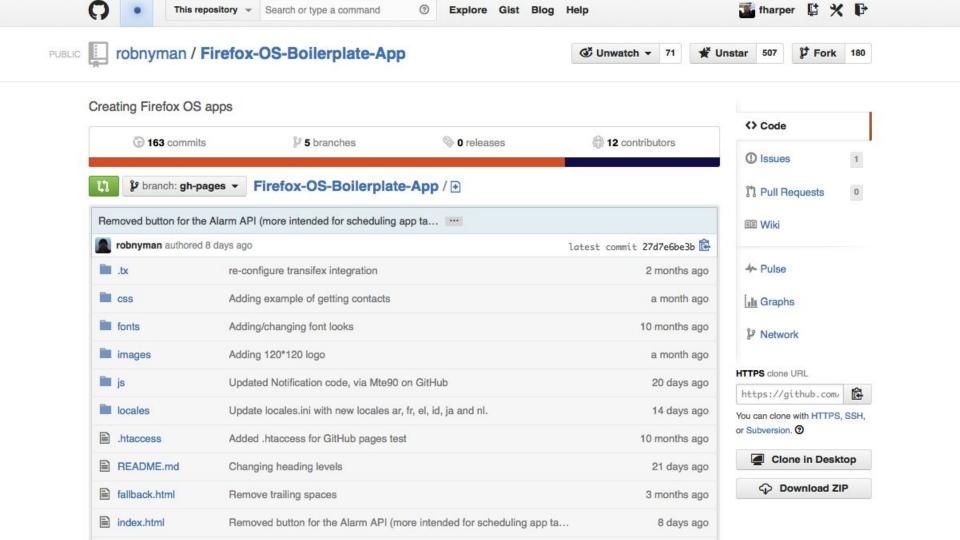
Bugzilla@Mozilla

mozilla

version 4.2.7+

fharper@mozilla.com >

Some candies



Prototyping with JSFiddle



- Append /webapp.manifest to install the app in the Firefox OS simulator
- Append /fxos.html to get an install page like a Firefox OS hosted app.

Building Firefox OS

Start creating your own apps

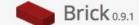


Building Blocks
Reusable component set with
markup and usage examples.

CSS Transitions
Ready to use animations and transitions for your apps.



Downloads
Get all Firefox OS goodies!
Design stencils, icons, fonts...



What is Brick?

Brick is a bundle of reusable UI components created to enable **rapid development** of cross-browser and mobile-friendly HTML5 web applications.

Neat. How?

Brick components are **custom HTML tags** created using X-Tag — a library that makes developing Web Components easier.

Um, Web Components?

Web Components is a series of emerging **W3C** standards that allow developers to define custom HTML elements, and interact with them using the native DOM.

I'm the front

face.

Brick in Action

Toggle flip

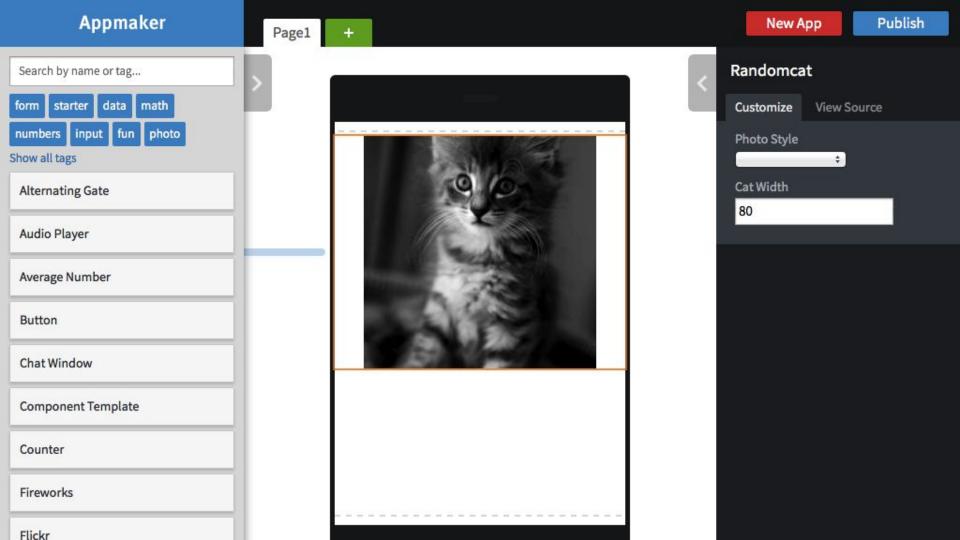
Markup

```
<x-flipbox>
     <div>I'm the front face.</div>
     <div>And I'm the back face.</div>
</x-flipbox>
```

JavaScript

```
// assume that toggleButton and flipBox are already
// defined as their respective DOM elements
toggleButton.addEventListener("click", function(){
    flipBox.toggle();
});
```

What's next



More Web APIs & features

- Calendar API
- FileHandle API Sync API
- Keyboard/IME API WebRTC
- HTTP-cache API
- Peer to Peer API
- Spellcheck API LogAPI
- Resource lock API



To infinity, and beyond...

When you'll build your next app

Why not think about the web first...

Resources

Firefox OS Simulator

http://j.mp/fxosSimulator

Firefox OS App Manager

http://j.mp/fxosAppManager

Mozilla Developer Network

https://developer.mozilla.org

StackOverflow forum

http://j.mp/fxosStackOverflow

Firefox OS Boilerplate

Join us for an epic workshop

http://mozhacks.wufoo.com/forms/firefox-os-app-workshop-prague



Planning to port or build a Firefox OS app?

Please let me know!

