

HTML5 and Mobile: Getting from Good Enough to Great



Phone**Gap**

Token "Me" Slide



I work at Nitobi Software

I'm Canadian, so yes, I have a pet beaver, *eh*

Work on rad mobile web stuff, including *PhoneGap*

I like beer

WARNING



I swear. Sorry if this bothers you.

HTML5 is pretty sweet



HTML5

+



CSS3

+



JavaScript

HTML5: rad

geolocation

making the web (more) semantic

<canvas> is starting to blow our minds

<audio> and <video>

offline storage options

omfg Web Workers!

WebSockets baby!

drag-n-drop

and, most importantly...

ROUNDED CORNERS! FUCK YES!

HTML5: more rad on the way



Good enough desktop & mobile browser penetration

HTML5: moar

W3C Device APIs and Policy Working Group

Contacts

Capture (audio / video / image)

Battery

Network Information

Device Permissions

System Info

Gallery

HTML5 on Mobile

iOS support for some features early
(geolocation, cool `<input>` types like email,
etc.)

`<canvas>` on Android

BlackBerry 6 with WebWorkers, WebSockets

iOS 4.2: WebSockets!

iOS 5: Web Workers!

HTML5: Empty Promises

Google I/O 2010: Android 2.2 browser with
accelerometer!

NOPE

... but if you use Flash you get access to it!

promise fail



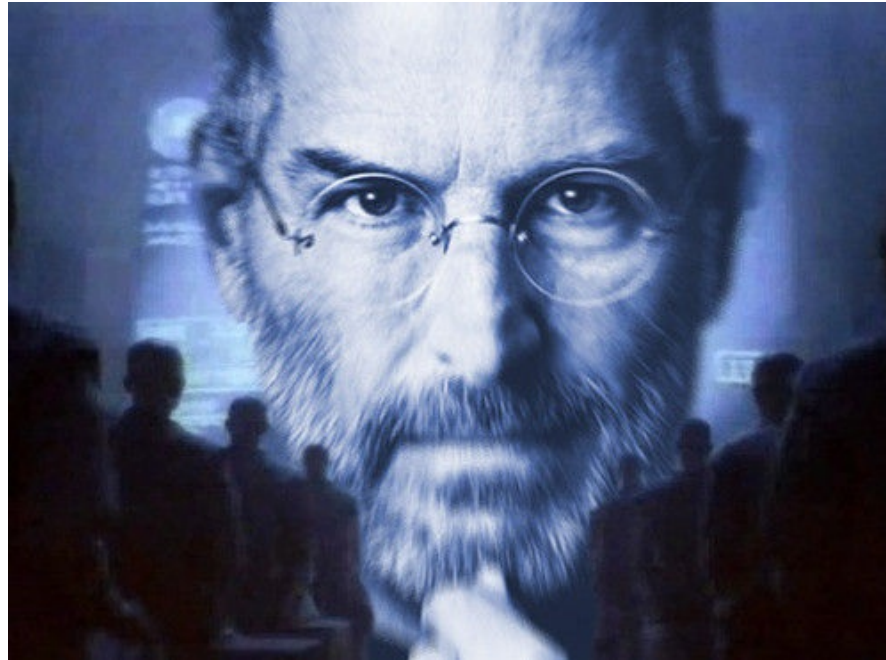
We're not there yet

Lots of stuff missing

Where are all the APIs the DAP is working on?

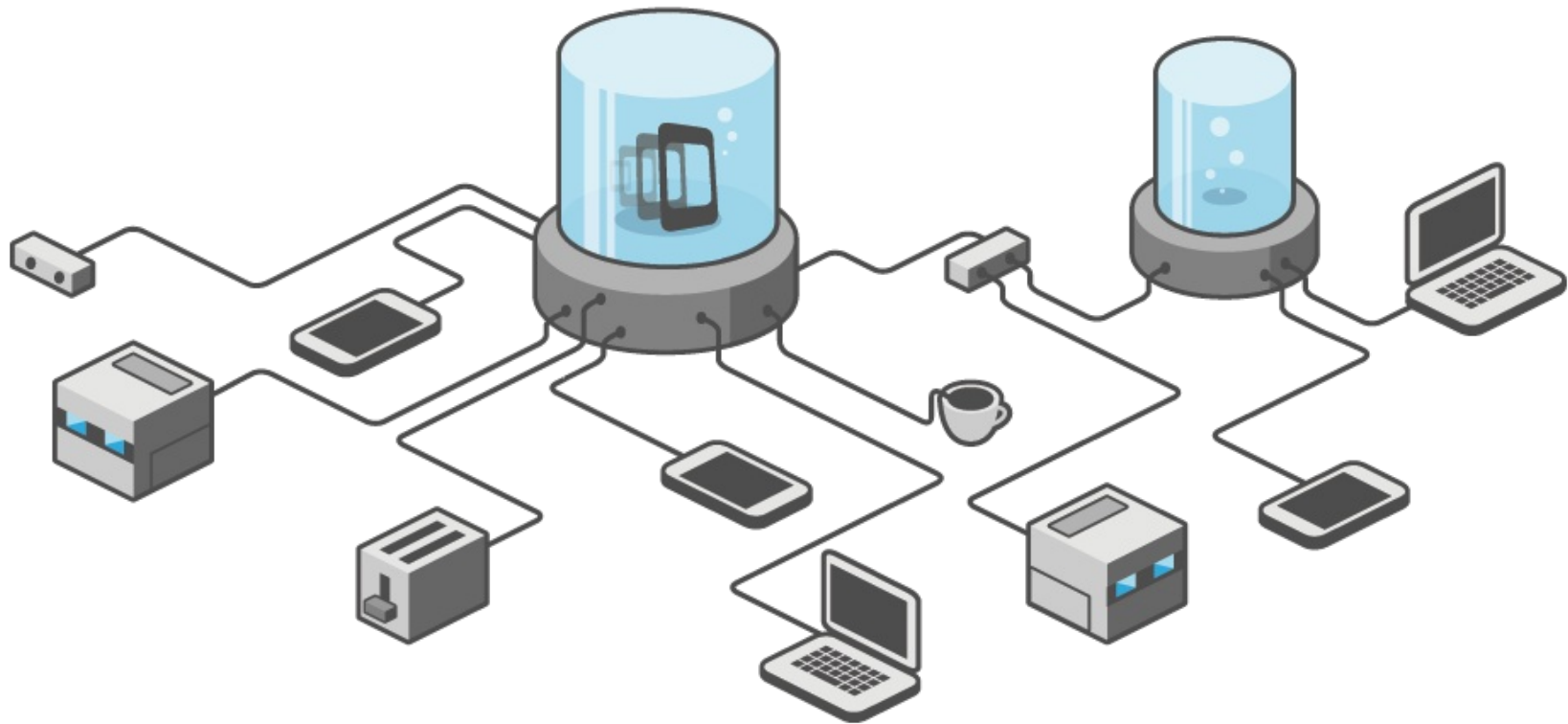
Perhaps HTML5/web tech not in best interest of some platforms

**BUT WHO WOULDN'T
WANT HTML5??!?**



Preposterous

PhoneGap Can Help



wtf is PhoneGap?

Write your app with HTML, CSS and JavaScript

"Wrap" it up using PhoneGap

Use device features and data via a JavaScript API

Output: native platform binaries for six different platforms

\$\$ profit \$\$

why the shit would I do that?

Write your app once, reuse assets - cross
platform baby!

Go where no web app has gone before



why the shit would I do that?
, continued

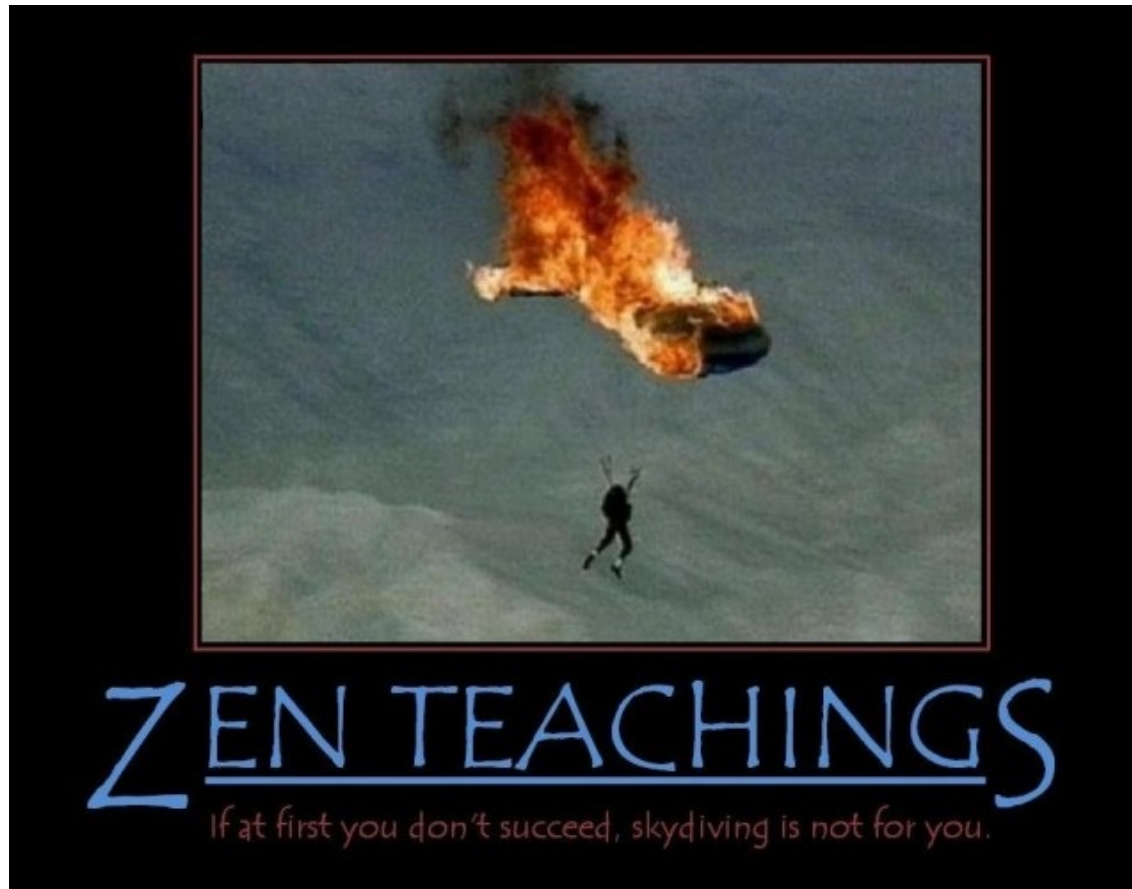
use device APIs that a web app can't access

get in the app store/world/market/place(s)

PhoneGap is a giant polyfill



The goal of PhoneGap is for
PhoneGap not to exist



How does PhoneGap work?

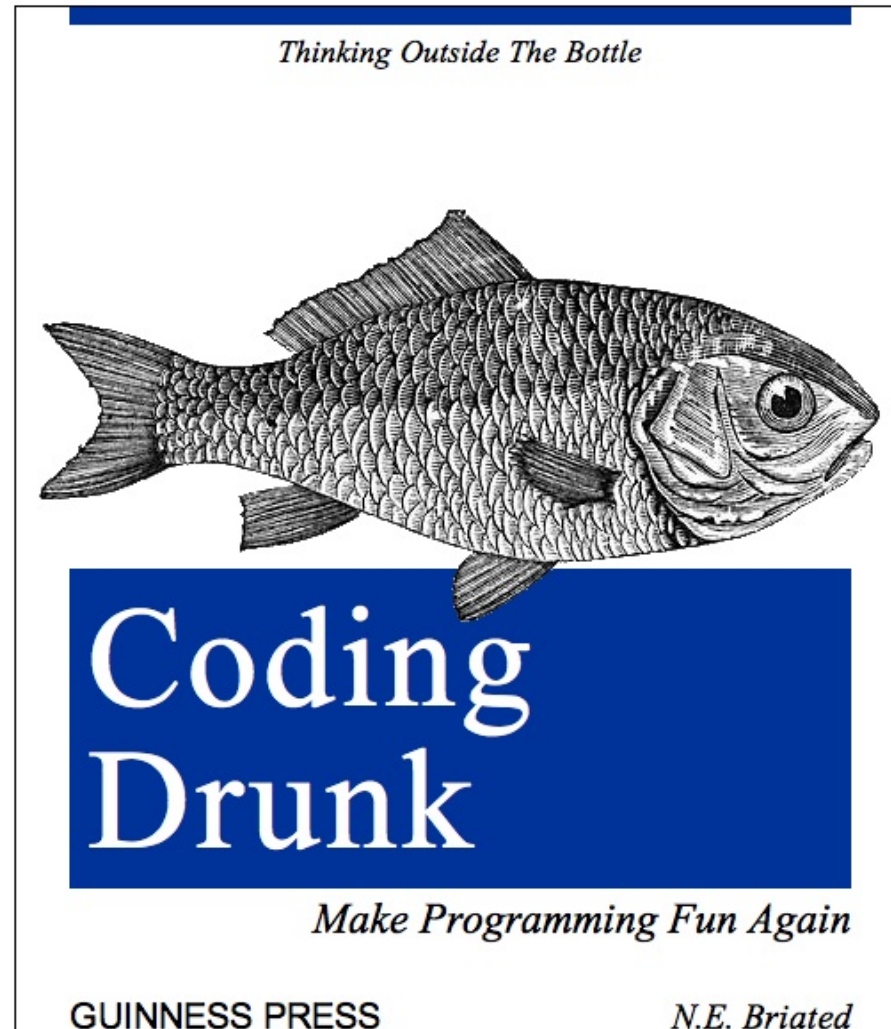
your HTML, CSS, JS is part of your native application package

creates an instance of the platform's native browser, chromeless

creates a Javascript-to-Native bridge

implements a JavaScript interface to native functionality (phonegap.js)

The PhoneGap Project



The PhoneGap Project: www.phonegap.com

Started in August 2008

Open source, MIT-licensed (fuck yeah)

Looks to W3C for direction (future-proof I guess?)

Contributors include IBM (these guys seriously kill it), Palm (and others I am likely forgetting and will probably hear about it soon)

Downloaded over 500,000 times

PhoneGap 1.0 release *tomorrow*

reminder: tag phonegap 1.0.0 at end of day tmrw

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Brian LeRoux [View profile](#)

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!



party.gif
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PhoneGap Applications

Logitech Squeezebox Controller

Diary Mobile

NFB Films

IGN Dominate

RNAO

JustOneMore

www.phonegap.com/apps

PhoneGap API

some examples

[*docs.phonegap.com](http://docs.phonegap.com)

Camera

```
// capture callback
var captureSuccess = function(mediaFiles) {
    alert(mediaFiles[0].fullPath);
};

// capture error callback
var captureError = function(error) {
    alert(error.code);
};

// start image capture
navigator.device.capture.captureImage(
    captureSuccess, captureError, {limit:2});
```

Accelerometer

```
function onSuccess (a) {  
    x = a.x;  
    y = a.y;  
    z = a.z;  
    time = a.timestamp;  
};
```

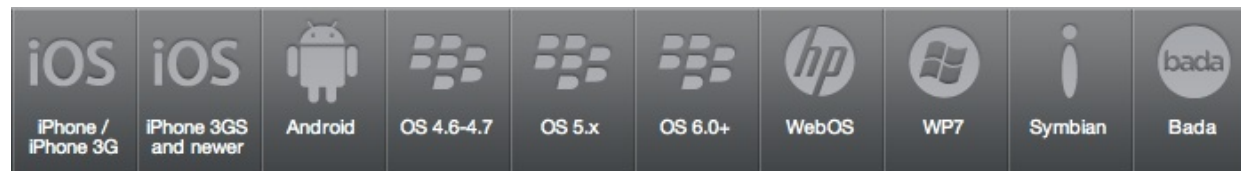
```
function onError () {  
    alert ('onError!');  
};
```

```
// Update every 3 seconds
```

```
var options = { frequency: 3000 };
```

```
navigator.accelerometer.watchAcceleration (  
    onSuccess, onError, options);
```

Cross-platform PhoneGap



Lifecycle Events

```
document.addEventListener(  
    "pause", onPause, false);
```

```
function onPause () {  
    clearInterval(timer_one);  
    clearInterval(timer_two);  
}
```

```
document.addEventListener(  
    "resume", onResume, false);
```

```
function onResume () {  
    timer_one = setInterval(dosomething, 2000);  
    timer_two = setInterval(dooother, 10000);  
}
```

Key Events

```
document.addEventListener (  
    "menubutton", onMenuKeyDown, false);  
  
function onMenuKeyDown () {  
    var menu = document.getElementById ("menu");  
    if (menu.style.display == 'block') {  
        menu.style.display = 'none';  
    } else {  
        menu.style.display = 'block';  
    }  
}
```

PhoneGap as a Hybrid



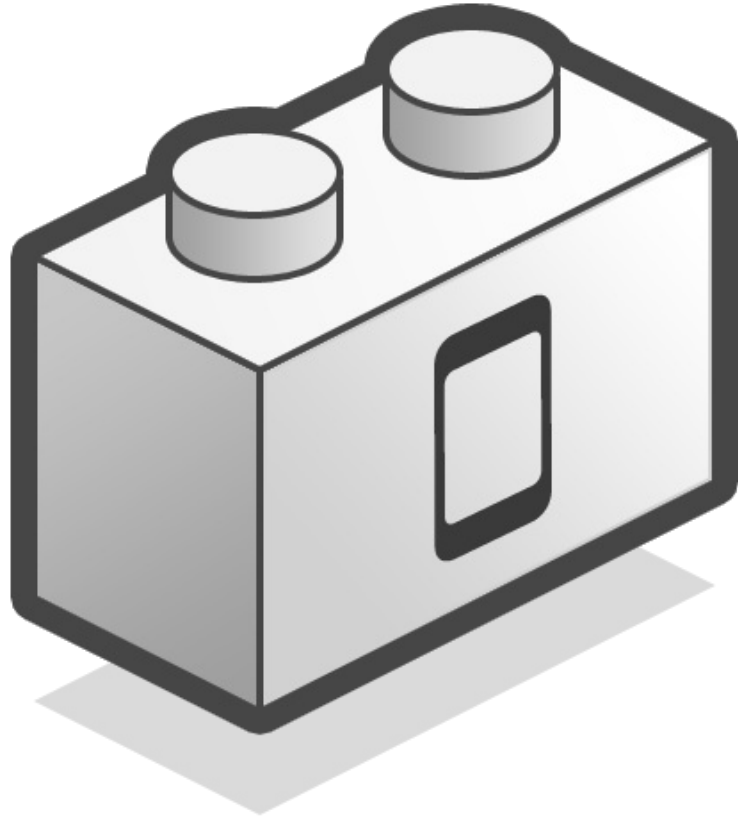
PhoneGap/Hybrid scenario

Your app is delicious, standards-compliant web tech. yum.

But it *really* needs BBM integration on BlackBerry

...

Write a plugin that will bridge into native BBM functionality via JavaScript



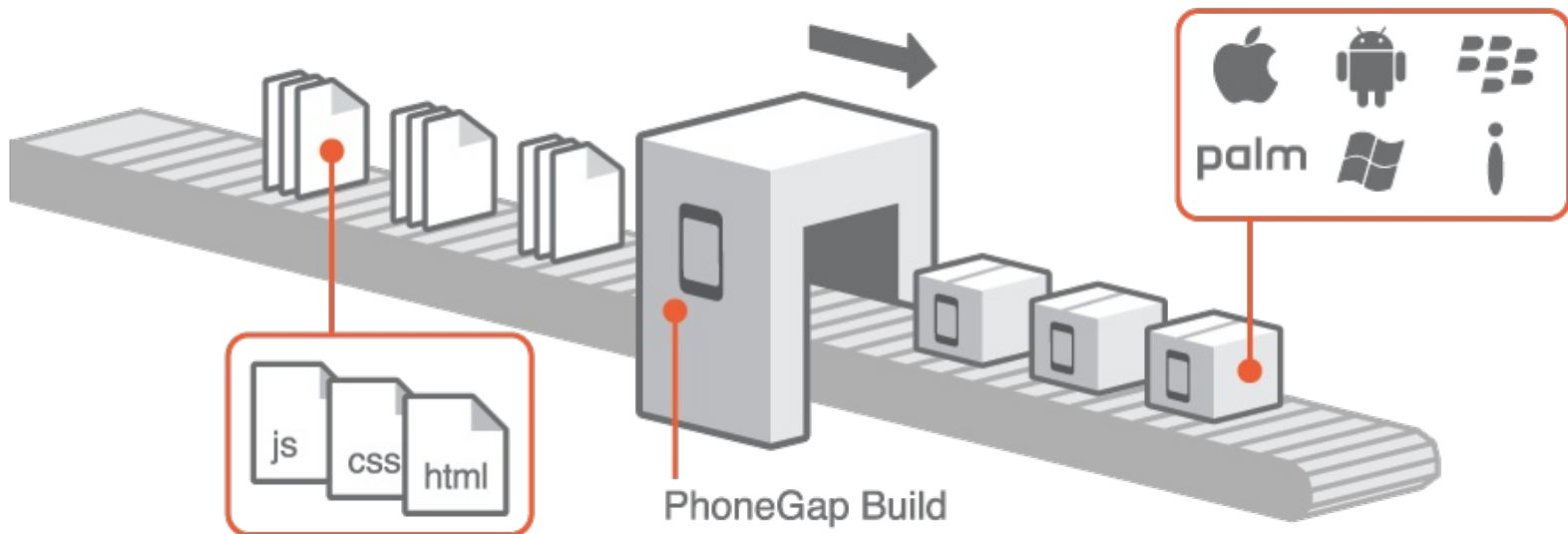
Write a native component implementing the PhoneGap Plugin interface

Write a JS API to your native component

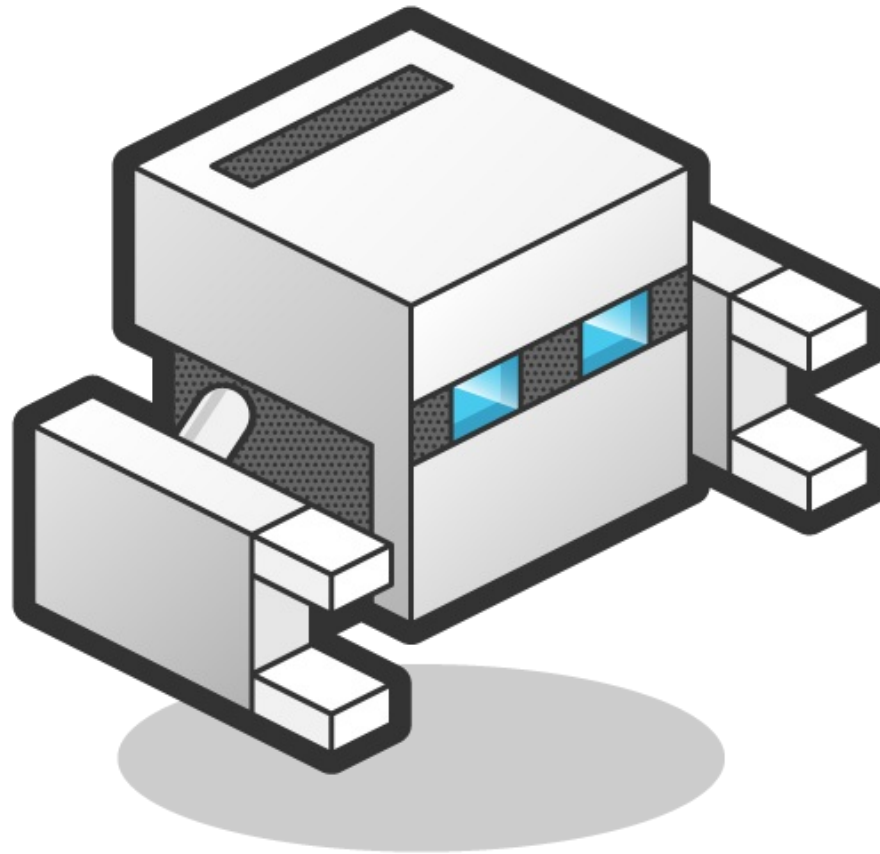
Include in your PhoneGap application

BBM users rejoice

PhoneGap Build



Build Breakdown



what's the deal

Submit HTML/CSS/JS to our cloud-based
build service

Get back native application binaries

No more SDK fussing

We'll even sign the app with your key for you

There's an API

PhoneGap Build Perks

will remain free for open-source apps
debug via WeInRe in the cloud

Thanks, *eh*

@filmaj

irc.freenode.net #PhoneGap