

Phonégap for Cats

(Not really for cats)
Utah CodeCamp Spring 2012



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Jerry Nixon, Microsoft Developer Evangelist

WEP Key: Extremefever2011

Obligatory “About Me”

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- Matthew Nielsen

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- Been getting paid to program since 2000...

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- But, crucially, I’ve only been using Phonegap since January 2012.

Obligatory “About Me”

- Matthew Nielsen
- Been getting paid to program since 2000...
- But, crucially, I’ve only been using Phonegap since January 2012.
- That’s how easy it is!

Important:

I will be assuming you have a basic knowledge of HTML, Javascript and “Smartphone” apps.

So, Phoneygap.

So, Phonegap.

for cats



Marketing sez:

“**PhoneGap** is an HTML5 app platform that allows you to author native applications with web technologies and get access to APIs and app stores. PhoneGap leverages web technologies developers already know best... HTML and JavaScript “

Nrrd speak plz.

Phonegap for Nerds:

Phonegap for Nerds:

(and cats)



Phoneygap for Nerds:

(and cats)



“Phoneygap is a static **web server, web browser and web assets** packaged for installation on a mobile device.”

Phonegap for Nerds:

(and cats)



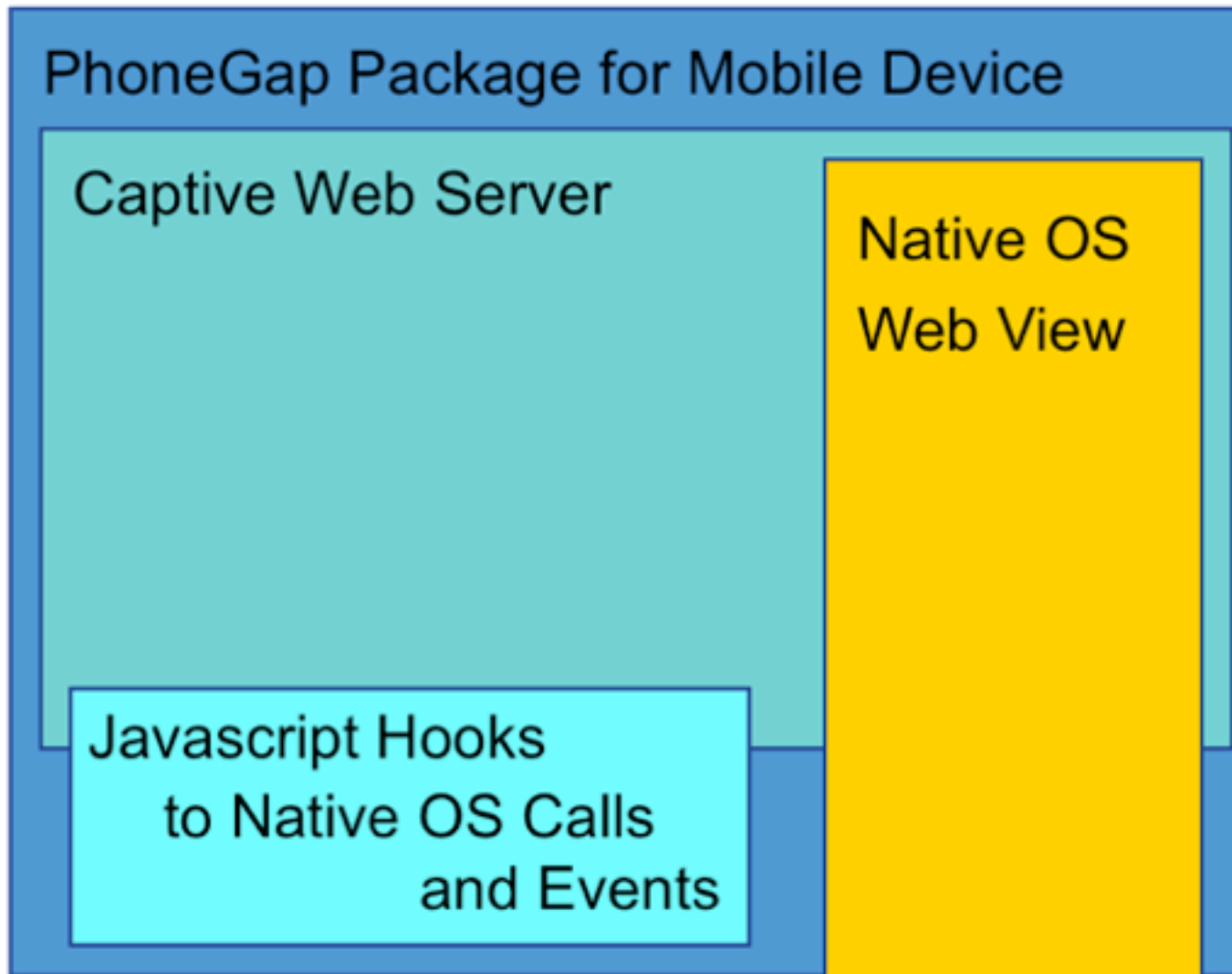
“Phonegap is a static **web server, web browser and web assets** packaged for installation on a mobile device.”

“It contains has a ‘special sauce’ to allow access to **OS- and Device-Level calls and events** that web browsers normally cannot access.”

The following graphic is
not helpful

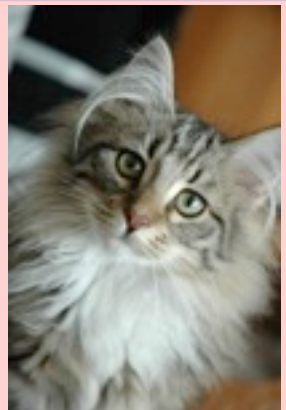
PhoneGap

Conceptual Layout

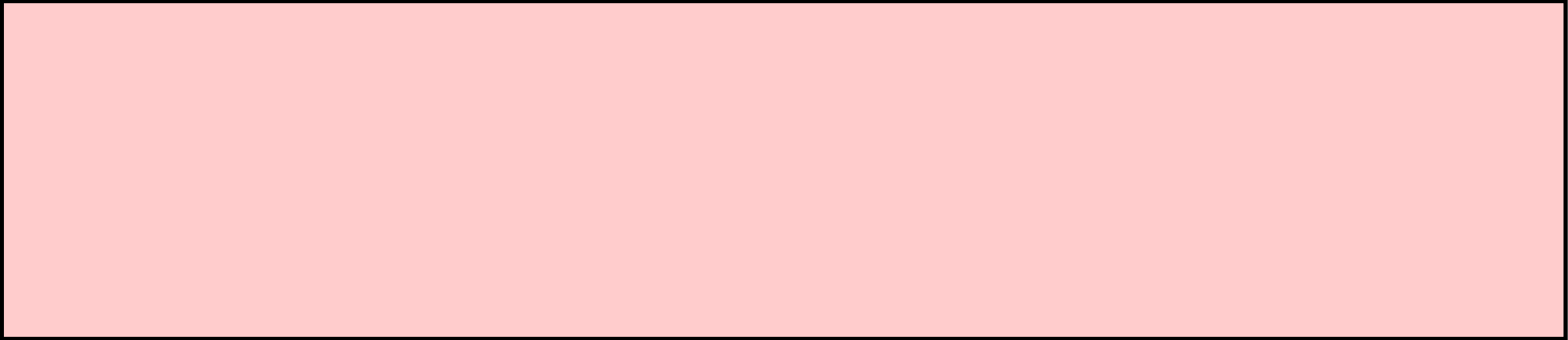


Host OS

Host Cat ->



The Breakdown



Operating System

Supported Operating Systems:

Operating System

Supported Operating Systems:

Fully Supported:

Android 2.2 to 2.3

iOS (iPhone 3G and up)

Windows Phone 7

Operating System

Supported Operating Systems:

Fully Supported:

Android 2.2 to 2.3
iOS (iPhone 3G and up)
Windows Phone 7

Partially Supported:

BlackBerry
WebOS
Symbian
Bada

Operating System

“Supported” Means:

“Supported” Means:

- Accelerometer,
Gyroscope and
Compass

“Supported” Means:

- Accelerometer,
Gyroscope and
Compass
- Camera

“Supported” Means:

- Accelerometer,
Gyroscope and
Compass
- Camera
- Contacts

“Supported” Means:

- Accelerometer,
Gyroscope and
Compass
- Camera
- Contacts
- File System

“Supported” Means:

- Accelerometer,
Gyroscope and
Compass
- Camera
- Contacts
- File System
- Local Data Storage

“Supported” Means:

- Accelerometer, Gyroscope and Compass
- Camera
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- Local Data Storage
- Geolocation (not raw GPS)

“Supported” Means:

- Accelerometer, Gyroscope and Compass
- Camera
- Contacts
- File System
- Local Data Storage
- Geolocation (not raw GPS)
- Notifications (Sound, Vibration, Alerts)

“Supported” Means:

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- Contacts
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- Local Data Storage
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- Network (Wifi, Cell)

“Supported” Means:

- Accelerometer, Gyroscope and Compass
- Camera
- Contacts
- File System
- Local Data Storage
- Geolocation (not raw GPS)
- Notifications (Sound, Vibration, Alerts)
- Network (Wifi, Cell)
- Local Media Devices

Operating System



Operating System

Native OS package containing Phonegap

Operating System

“Native Package”

“Native Package”

- App compiled at an installable application.
 - .apk for Android
 - .ipa for iOS
 - .exe for WP7
 - etc.
- System will manage it as a normal application.
 - Does not require browser running.
 - Can be uninstalled, etc.
 - It can crash!

The package will contain
everything necessary for
Phonegap to run on the device.

The package will contain
everything necessary for
Phonegap to run on the device.

It will contain all the HTML, CSS, JS and binary
assets that make up the business end of your
phonegap app.

Native OS package containing Phonegap

Operating System

Native OS package containing Phonegap



```
graph TD; A[Native OS package containing Phonegap] --- B[Operating System]
```

Operating System

Native OS package containing Phonegap

Captive Web Server

Operating System

Web Server

Web Server

- Serves up all the assets packaged in your Phonegap package.
- STATIC assets:
 - HTML, JS, CS and Binaries (images).
- “Localhost”, but inaccessible to any other process.

Native OS package containing Phonegap

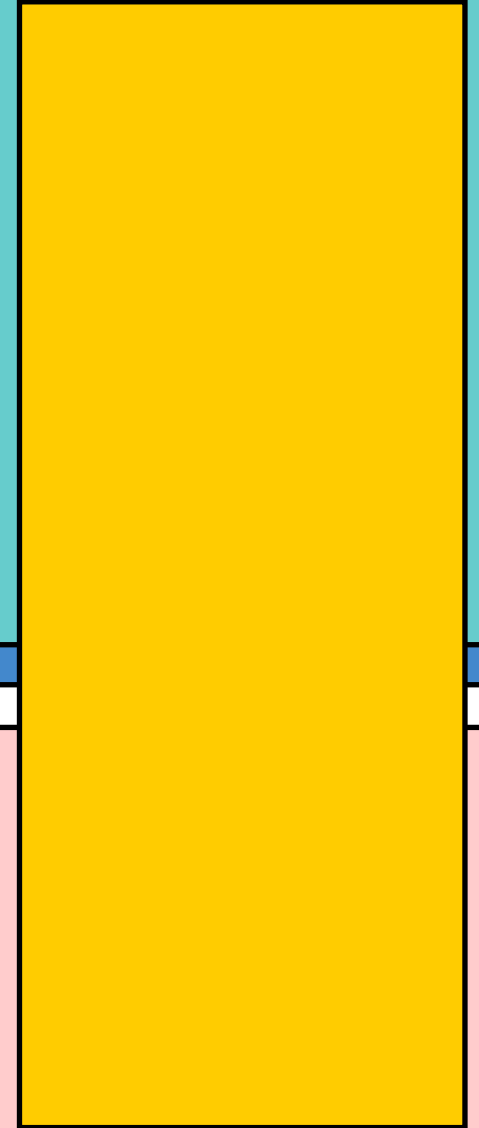
Captive Web Server

Operating System

Native OS package containing Phonegap

Captive Web Server

Operating System



Native OS package containing Phonegap

Captive Web Server

Single-Site
Web
Browser
Client

Operating System

Web Client

Web Client

- Uses Host OS Renderer
 - Mobile Safari (Webkit) on iOS
 - Mobile Chrome (Webkit) on Android
 - Trident (IE9.5) on WP7 Tango
 - etc.

Almost there, promise.

Almost there, promise.

Here's a cat:



Native OS package containing Phonegap

Captive Web Server

Single-Site
Web
Browser
Client

Operating System

Native OS package containing Phonegap

Captive Web Server

Single-Site
Web
Browser
Client

Operating System

Native OS package containing Phonegap

Captive Web Server

Single-Site
Web
Browser
Client

Special JS connection
to Native capabilities

Operating System

Native OS Calls and Events

```
document.addEventListener("menubutton", handleMenuButton, false);  
navigator.accelerometer.watchAcceleration(succ, fail, opt);
```

Native OS Calls and Events

```
document.addEventListener("menubutton", handleMenuButton, false);  
navigator.accelerometer.watchAcceleration(succ, fail, opt);
```

More on this later.

Let's see some code!

Easiest “Hello World” EVAR:

Easiest “Hello World” EVAR:

```
1 <html>
2   <body>
3     Hello, world.
4   </body>
5 </html>
```

REAL
Let's see some code!



REAL
Let's see some code!



...in just one second.

First, remember:

First, remember:

PhoneGap **IS** a how you get
your code to, and run it on, the
device.

First, remember:

PhoneGap **IS** a how you get
your code to, and run it on, the
device.

PhoneGap **IS NOT** your framework, toolkit or widget
library.

You have to supply those yourself.

We'll be using:

We'll be using:

Jquery 1.6.4

We'll be using:

Jquery 1.6.4

Jquery Mobile 1.1.0 RCI

We'll be using:

Jquery 1.6.4

Jquery Mobile 1.1.0 RCI

JSRender

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Jquery 1.6.4

Jquery Mobile 1.1.0 RCI

JSRender

Of course, PhoneGap

We'll be using:

Jquery 1.6.4

Jquery Mobile 1.1.0 RCI

JSRender

Of course, PhoneGap

(No cats)



PhoneGap

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Developers ▾

Community ▾

Support ▾



Download
PhoneGap 1.5.0

THE ONLY OPEN SOURCE MOBILE FRAMEWORK THAT SUPPORTS 7 PLATFORMS



Single Code Base



PhoneGap



Deploy to Multiple Platforms

PhoneGap is an HTML5 app platform that allows you to author native applications with web technologies and get access to APIs and app stores. PhoneGap leverages web technologies developers already know best... HTML and JavaScript. [Learn More »](#)



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PhoneGap

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Download
PhoneGap 1.5.0

In **0** seconds, your download will begin from Github.

Download not starting? Try this [link](#).

This download and all other PhoneGap code is hosted by Apache Incubator Project Callback on GitHub [until the migration to the Apache Software Foundation is complete](#).

You may also find following links useful:



Getting Started Guide

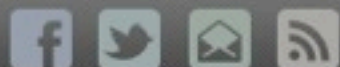


NEWSLETTER

Sign up for our monthly newsletter.
We don't give your email address to
anyone else--we hate spam too.

Name:

Email Address:

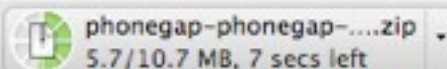


Case Studies

Blog

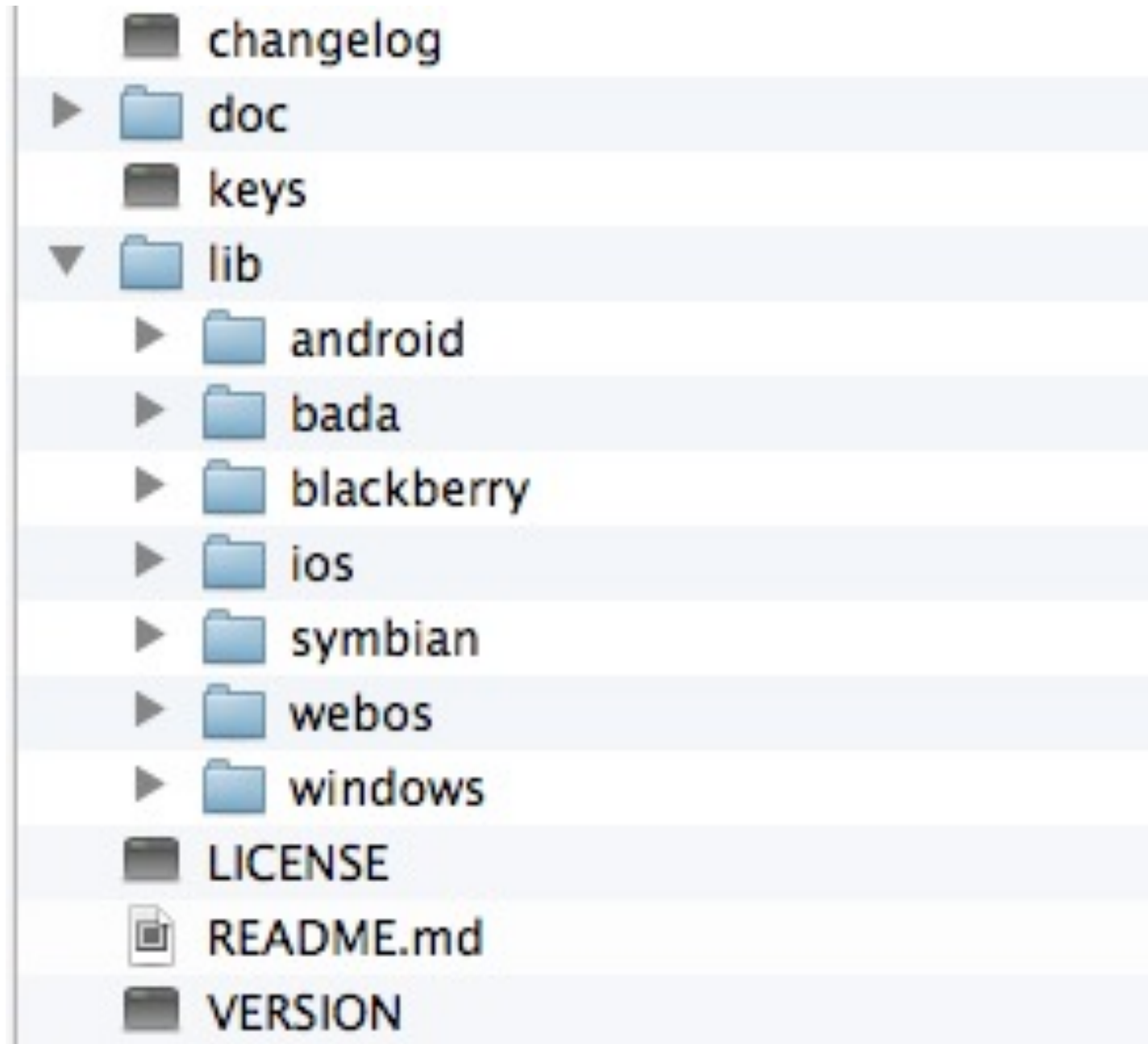
FAQs

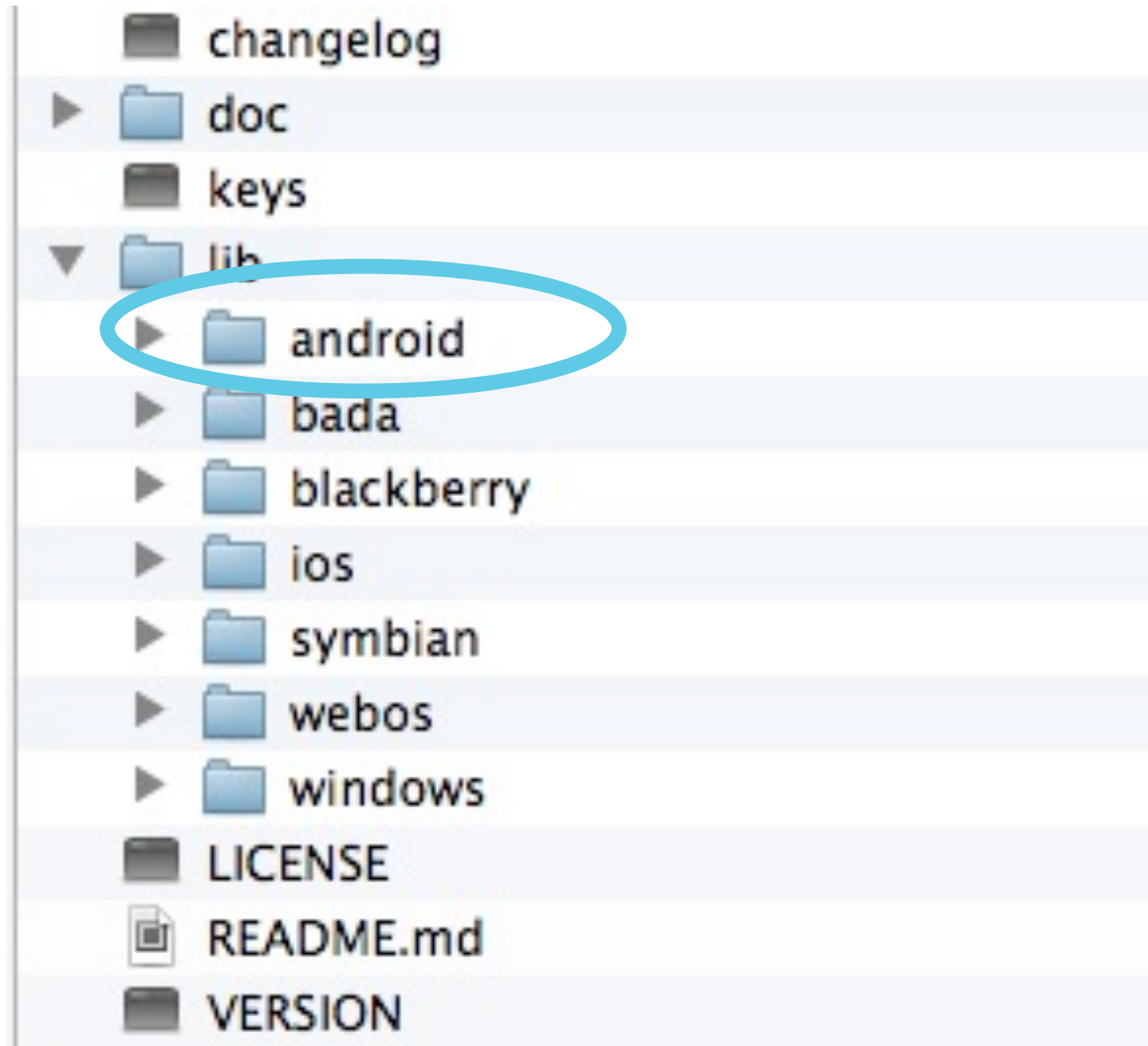
Contact

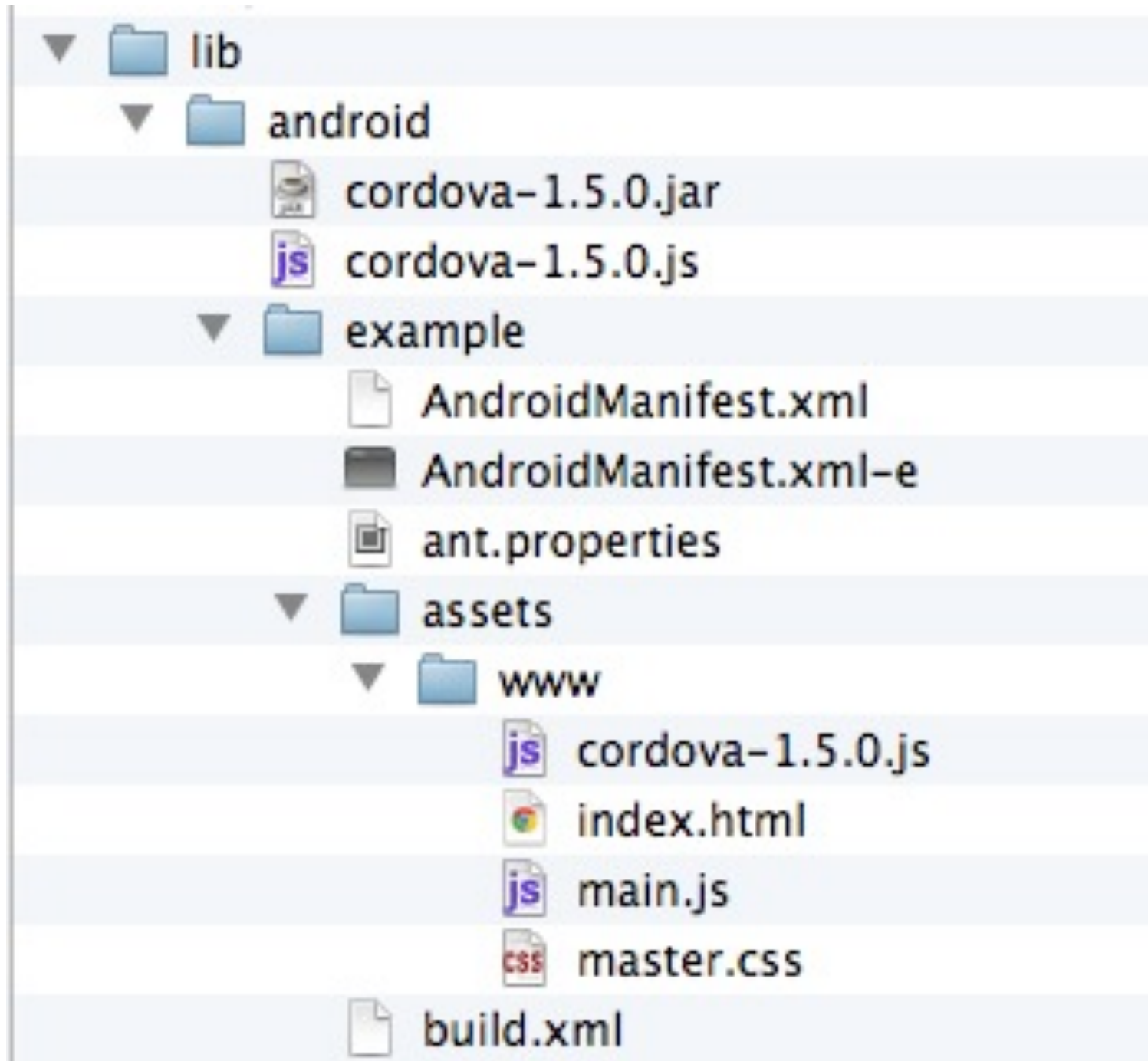


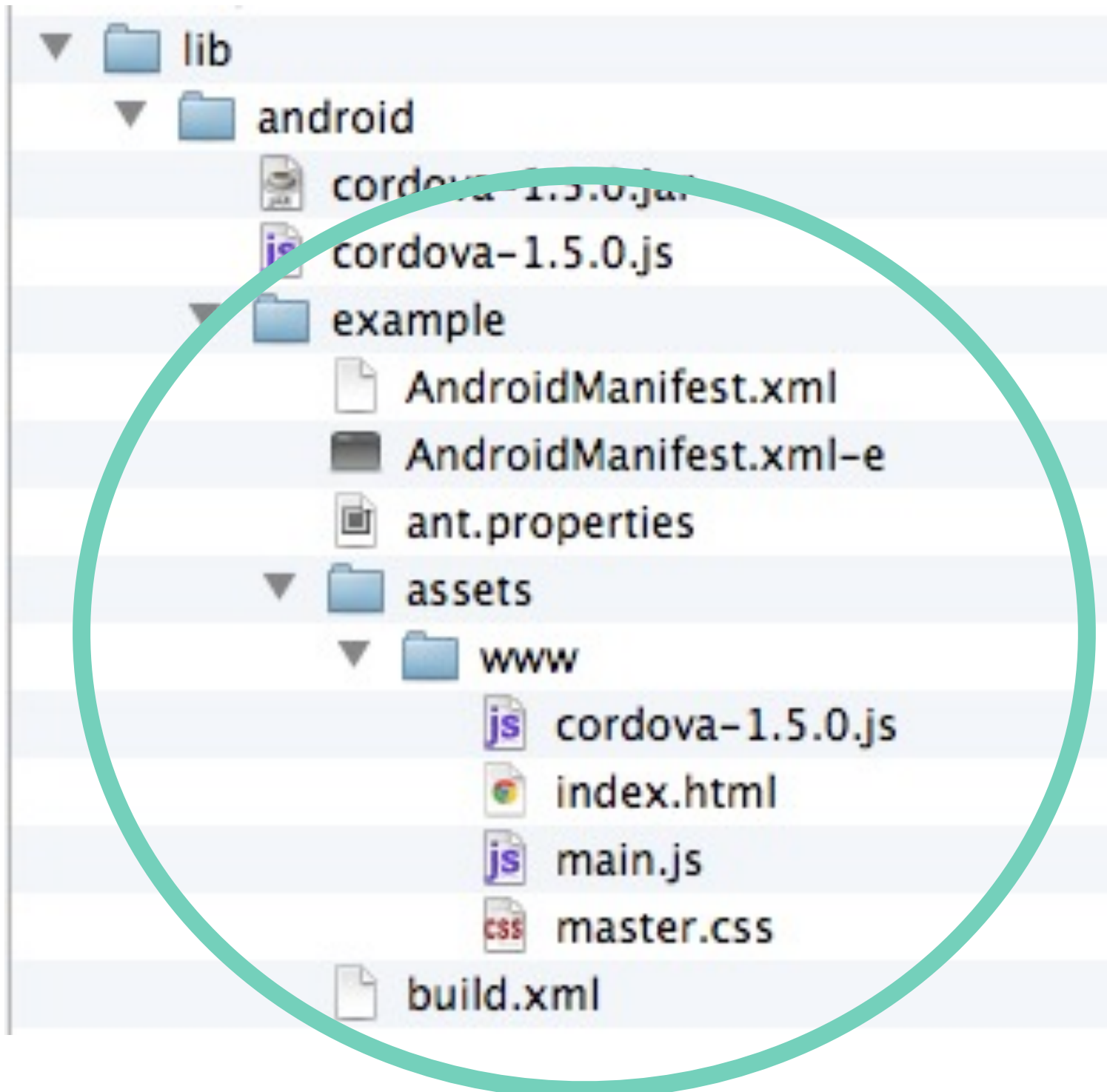
↓ Show All











INSERT CODE HERE

Building the App

Option I:

Option I:

Build Natively on a PC

Option 1:
Build Natively on a PC

Option 2:

Option 1:
Build Natively on a PC

Option 2:



PhoneGap:Build



Your Apps

new app



test

last built 03/09/2012

ADMIN

iOS



apk



OTA install

webOS

ipk

symbian

wgz



AboutOne

Version 1.0.0, last built 01/20/2012



PRIVATE

ADMIN

iOS



apk



OTA install

webOS

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PRIVATE

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iOS



apk




OTA install

webOS

ipk

symbian

wgz

 iOS

rebuild



You must provide a signing key, first

more info

Downloadapk

 Android


rebuild




Downloadapk

 BlackBerry


rebuild




DownloadOTA install

 webOS


rebuild



Downloadipk

 symbian

rebuild



Downloadwgz

<http://bit.ly/yjayYX>



<http://bit.ly/yjayYX>

The \$65,536 Question:

The \$65,536 Question:

**Can I get a PhoneGap
app in to the App
Store?**

Android Marketplace?

Android Marketplace? **YES**

Android Marketplace? **YES**

Amazon App Store?

Android Marketplace? **YES**

Amazon App Store? **Probably**

Android Marketplace? **YES**

Amazon App Store? **Probably**

Window Market?

Android Marketplace? **YES**

Amazon App Store? **Probably**

Window Market? **Likely**

Android Marketplace? **YES**

Amazon App Store? **Probably**

Window Market? **Likely**

Apple iTunes App Store?

Android Marketplace? **YES**

Amazon App Store? **Probably**

Window Market? **Likely**

Apple iTunes App Store?

Maybe.

Maybe? Maybe?

Maybe? Maybe?

There is nothing explicitly preventing PhoneGap apps from being accepted in to the App Store.

Maybe? Maybe?

There is nothing explicitly preventing
PhoneGap apps from being accepted in
to the App Store.

.. but ..

Maybe? Maybe?

There is nothing explicitly preventing
PhoneGap apps from being accepted in
to the App Store.

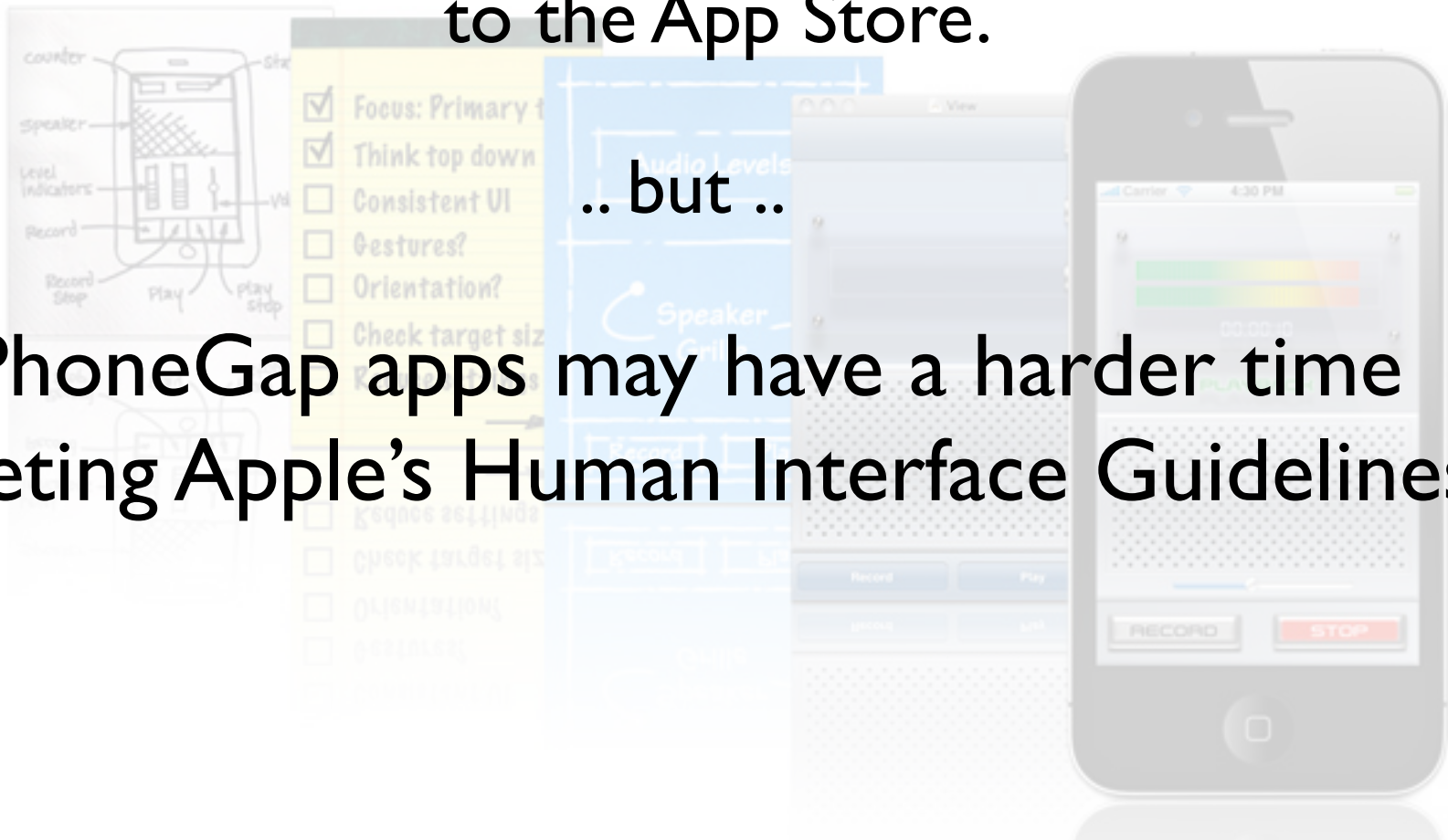


Maybe? Maybe?

There is nothing explicitly preventing PhoneGap apps from being accepted in to the App Store.

.. but ..

PhoneGap apps may have a harder time meeting Apple's Human Interface Guidelines.



Extra Credit:

Using Phonegap code as a Plain old HTML APP



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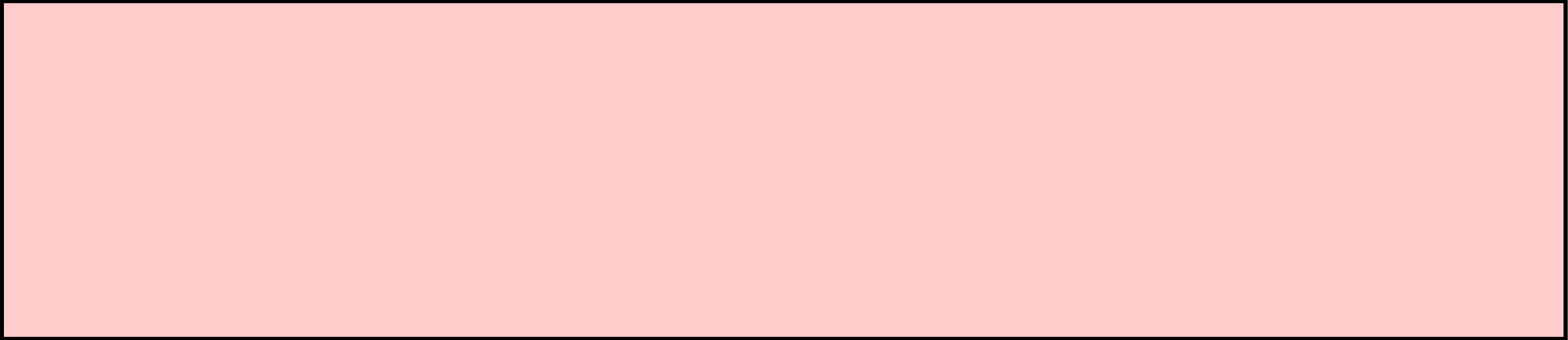
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Jerry Nixon, Microsoft Developer Evangelist

WEP Key: Extremefever2011



Operating System



Operating System

Native OS package containing Phonegap

Operating System

Native OS package containing Phonegap



```
graph TD; A[Native OS package containing Phonegap] --- B[Operating System]
```

Operating System

Native OS package containing Phonegap

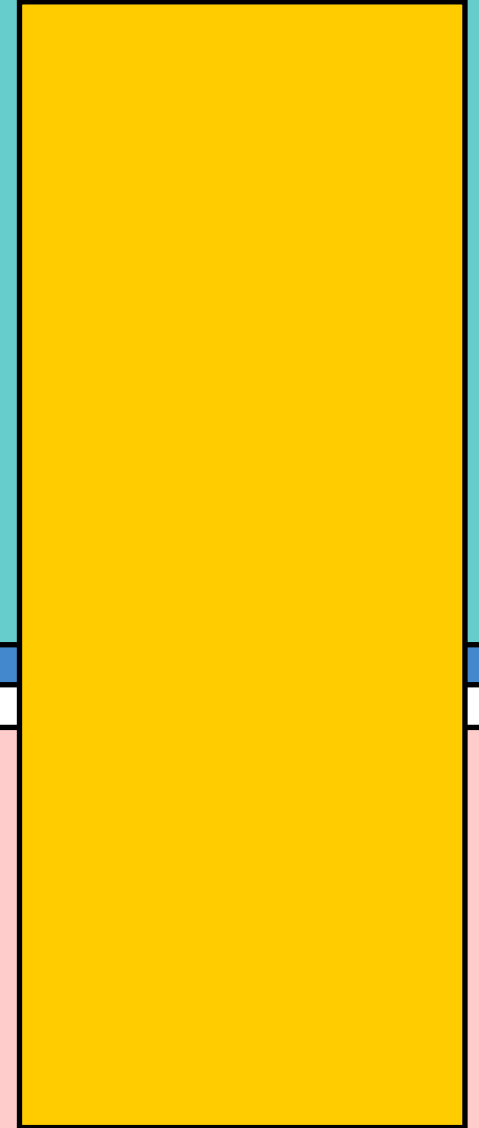
Captive Web Server

Operating System

Native OS package containing Phonegap

Captive Web Server

Operating System



Native OS package containing Phonegap

Captive Web Server

Single-Site
Web
Browser
Client

Operating System

Native OS package containing Phonegap

Captive Web Server

Single-Site
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Operating System

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Captive Web Server

Single-Site
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Special JS connection
to Native capabilities

Operating System