

# Maps for PhoneGap

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@agup



APACHE  
CORDOVA™

# PhoneGap vs Cordova

PhoneGap came first

Original developer Nitobi

Adobe acquired Nitobi (Oct 2011)

Apache Cordova open source project (2011)

Share same code base

Adobe PhoneGap Build (Sep 2012)

Becomes top-level Apache Project (Oct 2012)

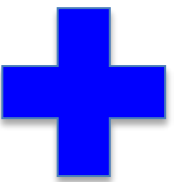
# What is PhoneGap?

Native wrapper around headless browser

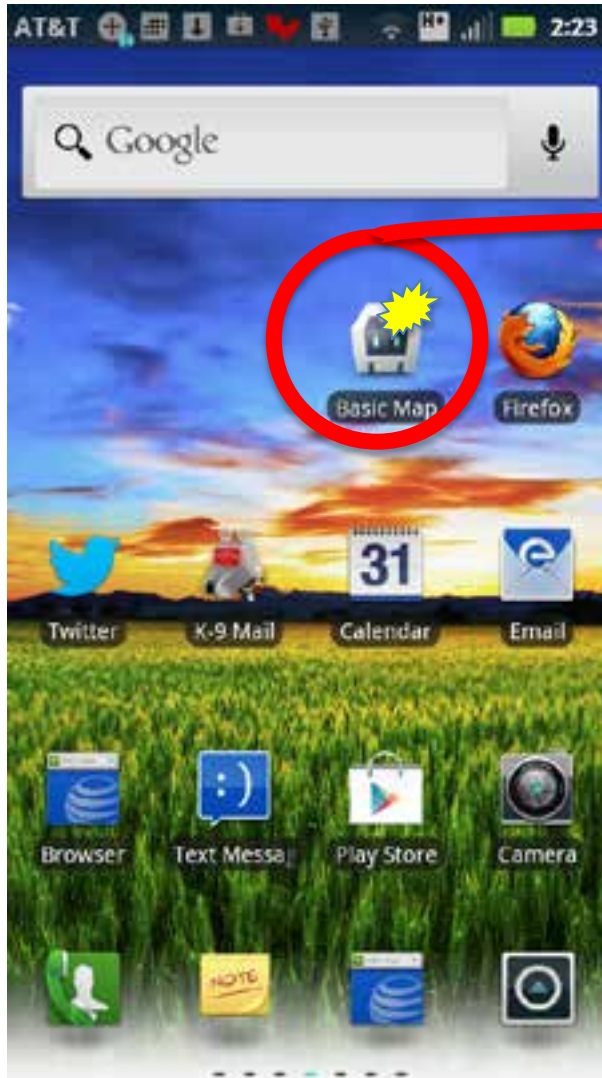
Better access to storage and sensors

Create native apps for Google Play, App Store

# PhoneGap



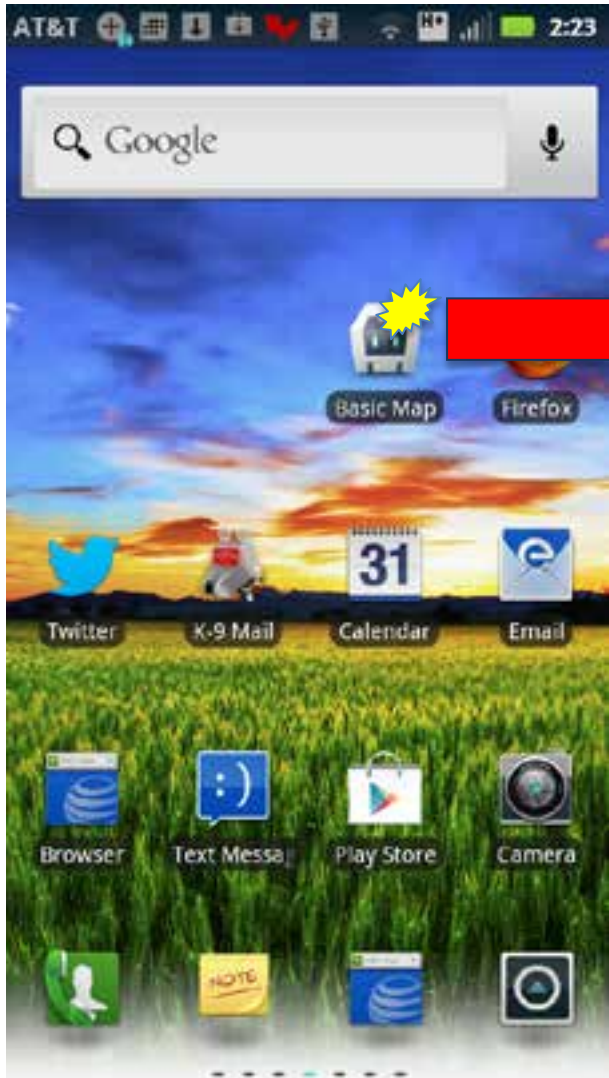
# Native deployment model



# Native deployment model



# Access to sensors



Direct access to:

GPS

Camera

SD Card

Compass

Accelerometer

Connection State

...



# Regular javascript can't do this...

PhoneGap can lock screen *AWAKE*.



























PhoneGap works when app is minimized!







# Platforms

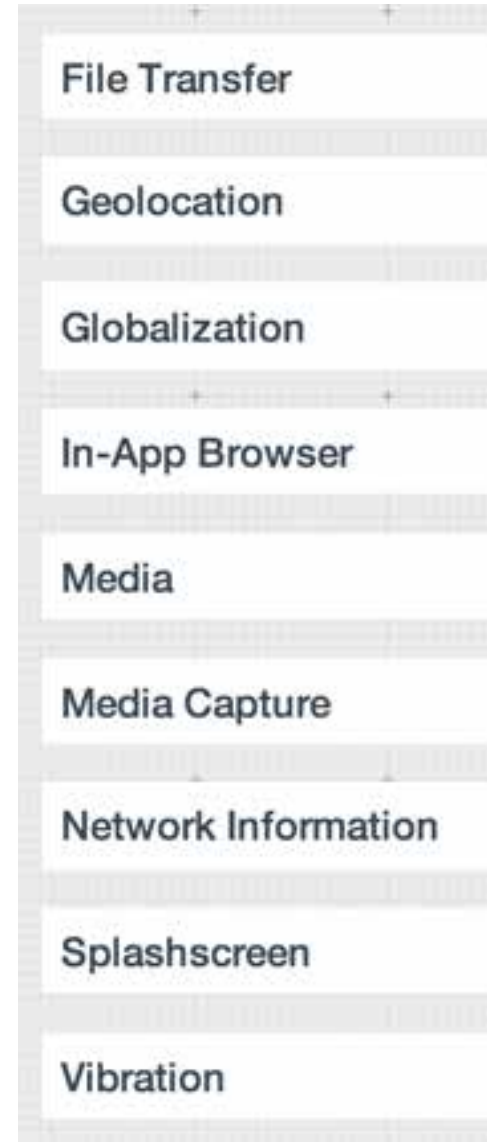
Platforms		
Android	 Apache Git	 Github
Bada		
Blackberry		
FirefoxOS		
iOS		
Mac OS X		
QT		
Tizen		
Ubuntu		
WebOS		
Windows (desktop)		
Windows Phone 7		
Windows Phone 8		

# Platforms & Function

Feature	iPhone /iPhone 3G	iPhone 3GS and newer	Android 1.0 – 4.2	Windows Phone	BlackBerry 10 and PlayBook OS	4.6– 4.7	5.x– 6.0+	Bada	Symbian	webOS	Tizen
Accelerometer	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
Camera	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
Compass	N/A	Yes	Yes	Yes	Yes	N/A	N/A	Yes	N/A	Yes	Yes
Contacts	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	N/A	Yes
File	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes
Geolocation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Media	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	Yes
Network	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Notification (alert, sound, vibration)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Storage	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes

Source: <http://en.wikipedia.org/wiki/PhoneGap>

# Plugins



# Download the library

<http://cordova.apache.org>



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**Apache Cordova** is a platform for building native mobile applications using **HTML, CSS** and **JavaScript**

**DOWNLOAD**

Cordova version 3.1.0



# Install Node.js

Current version: v0.10.20



Windows Installer

node-v0.10.20-x86.msi



Macintosh Installer

node-v0.10.20.pkg



Source Code

node-v0.10.20.tar.gz

Windows Installer (.msi)	32-bit	64-bit
Windows Binary (.exe)	32-bit	64-bit
Mac OS X Installer (.pkg)	Universal	
Mac OS X Binaries (.tar.gz)	32-bit	64-bit
Linux Binaries (.tar.gz)	32-bit	64-bit
SunOS Binaries (.tar.gz)	32-bit	64-bit
Source Code	node-v0.10.20.tar.gz	

# Install Cordova

```
npm install -g cordova
```

# Create PhoneGap Project

Use command line utility

Use a template

<https://github.com/andygup/quickstart-phonegap-template>



# Cordova CLI

Use correct "[Platform Guide](#)"

Global `create` command

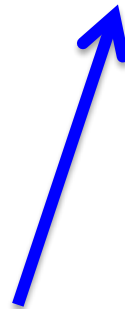
# Create PhoneGap Project

```
$ cordova create hello com.example.hello "HelloWorld"
```

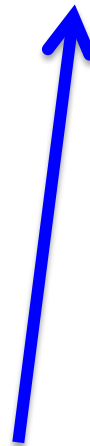
Directory



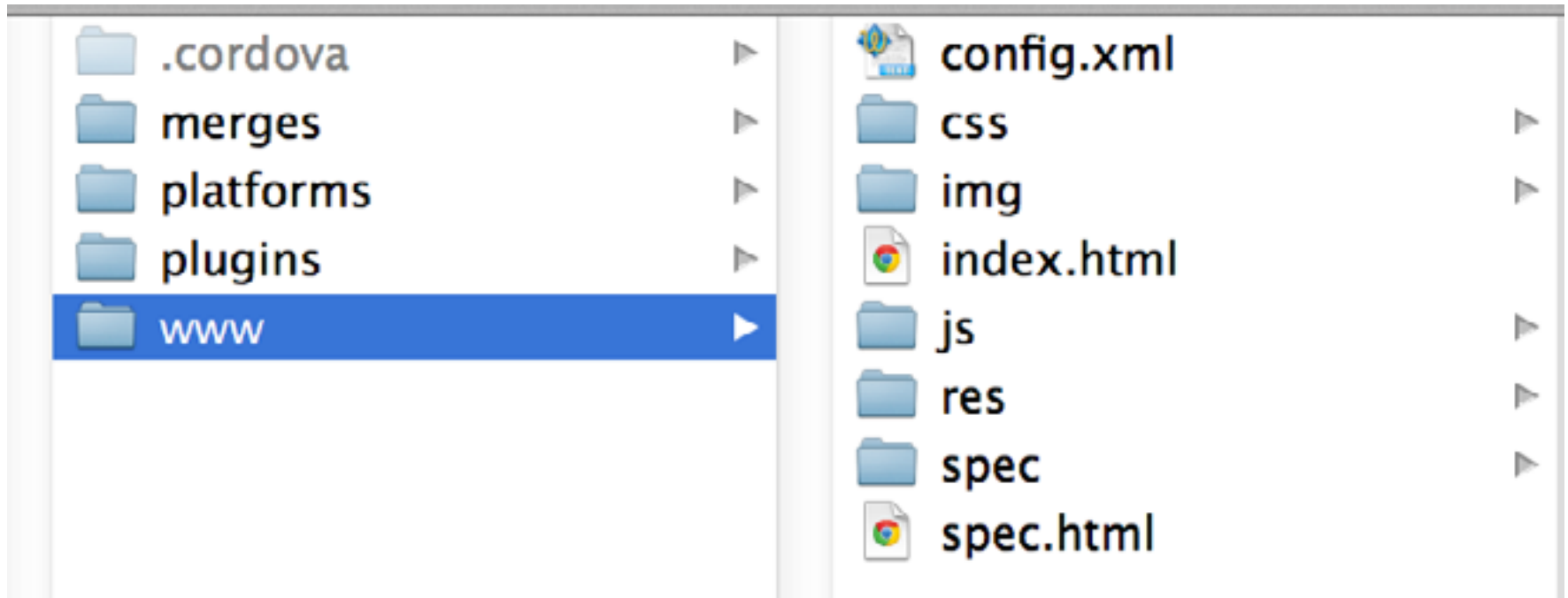
Project namespace



Display Text



# Create PhoneGap Project



# Create PhoneGap Project

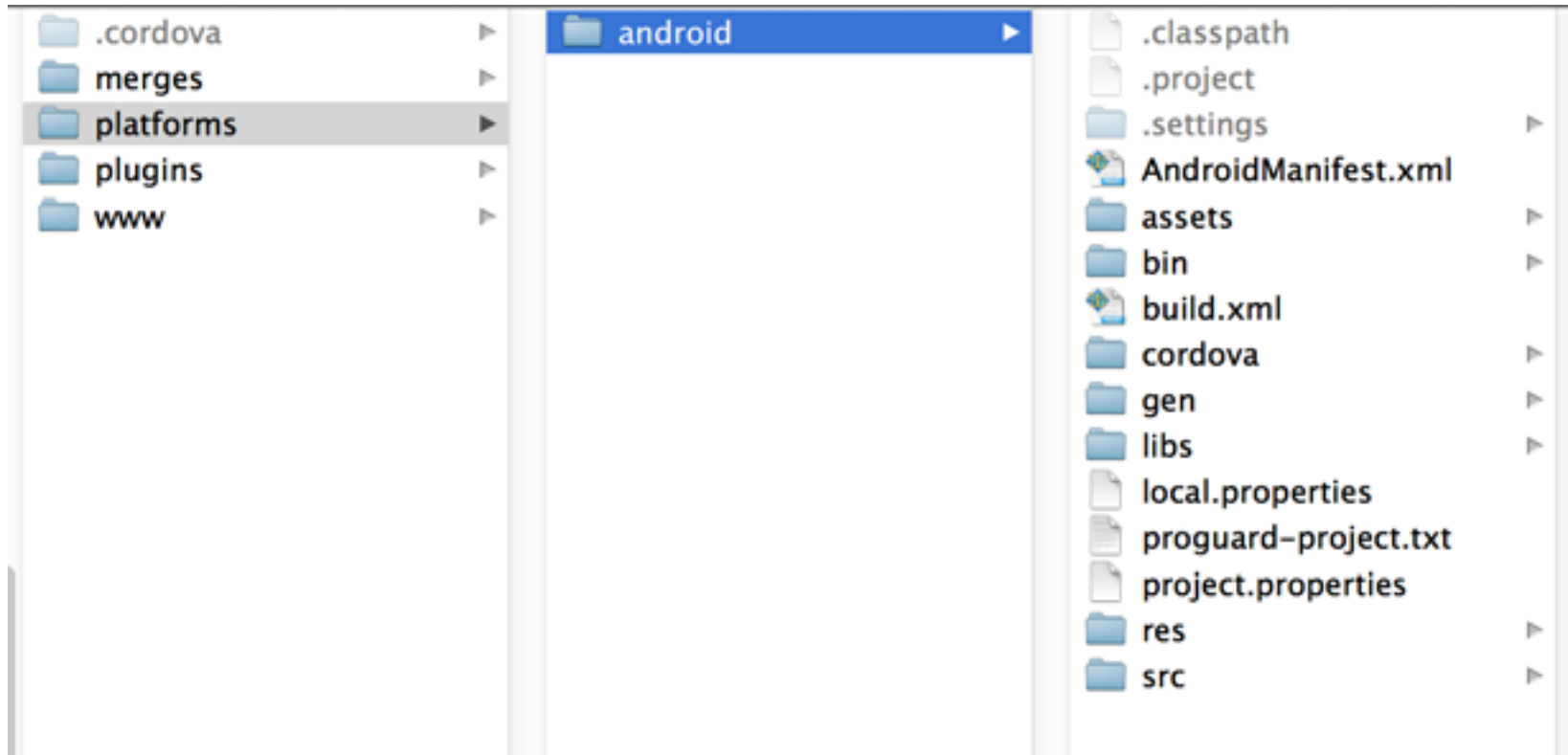
```
$ cordova create hello com.example.hello "HelloWorld"
```

```
$ cd hello
```

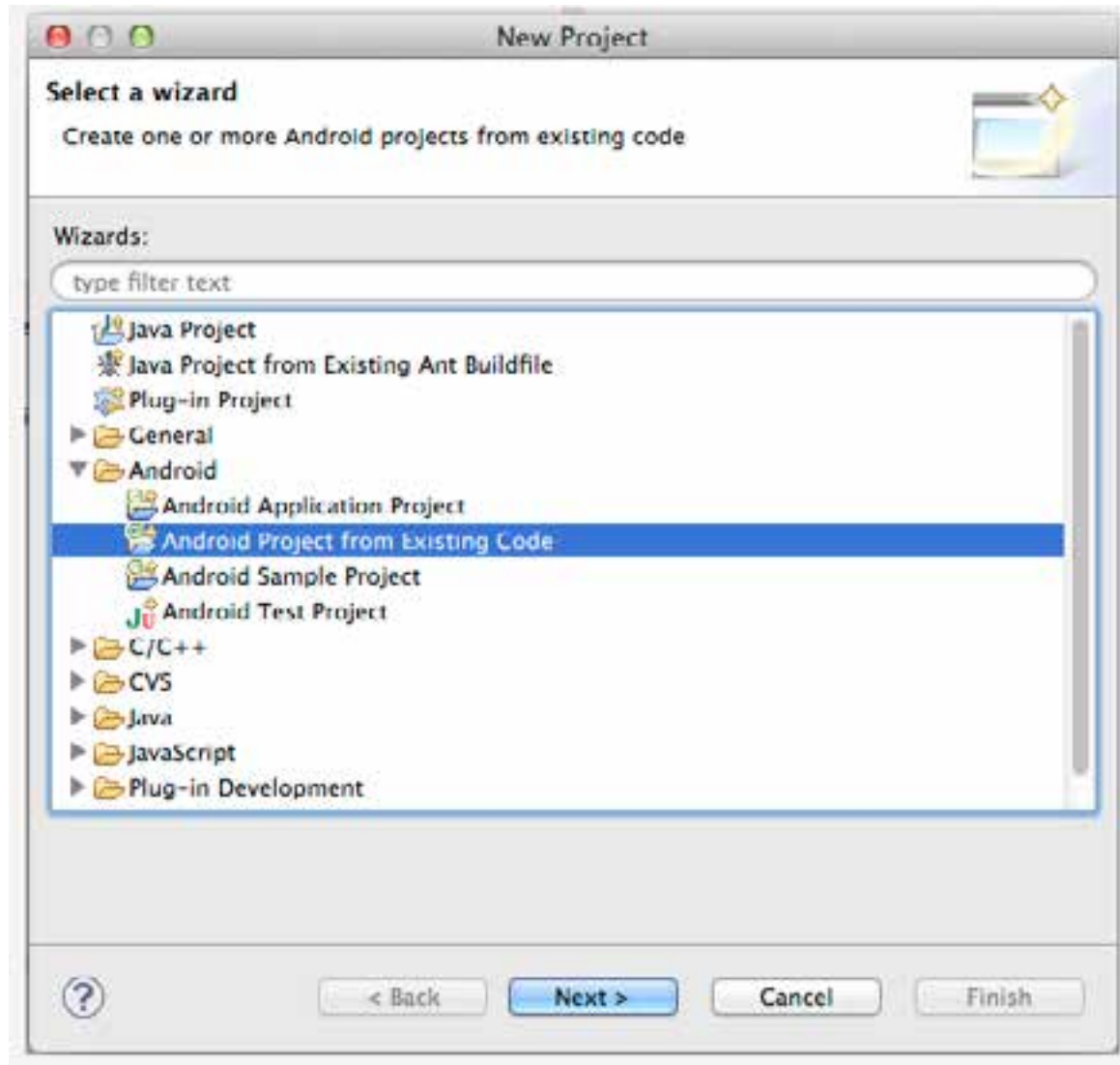
```
$ cordova platform add Android
```

```
$ cordova build
```

# Add Android platform



# Open Project in Eclipse



# Your new project!

- ▼ QuickStartCordova
  - ▶ Android 4.2.2
  - ▶ Android Private Libraries
  - ▼ src
    - ▼ com.esri.sample.quickstart.phonegap
      - ▶ QuickStartCordova.java
    - ▶ gen [Generated Java Files]
  - ▼ assets
    - ▶ www
  - ▶ bin
  - ▶ cordova
  - ▶ libs
  - ▶ res
  - AndroidManifest.xml
  - build.xml
  - local.properties
  - proguard-project.txt
  - project.properties

# Enable Geolocation\*

## STEP 1

```
$ cordova plugin add org.apache.cordova.geolocation
```

## STEP 2 - in app/res/xml/config.xml

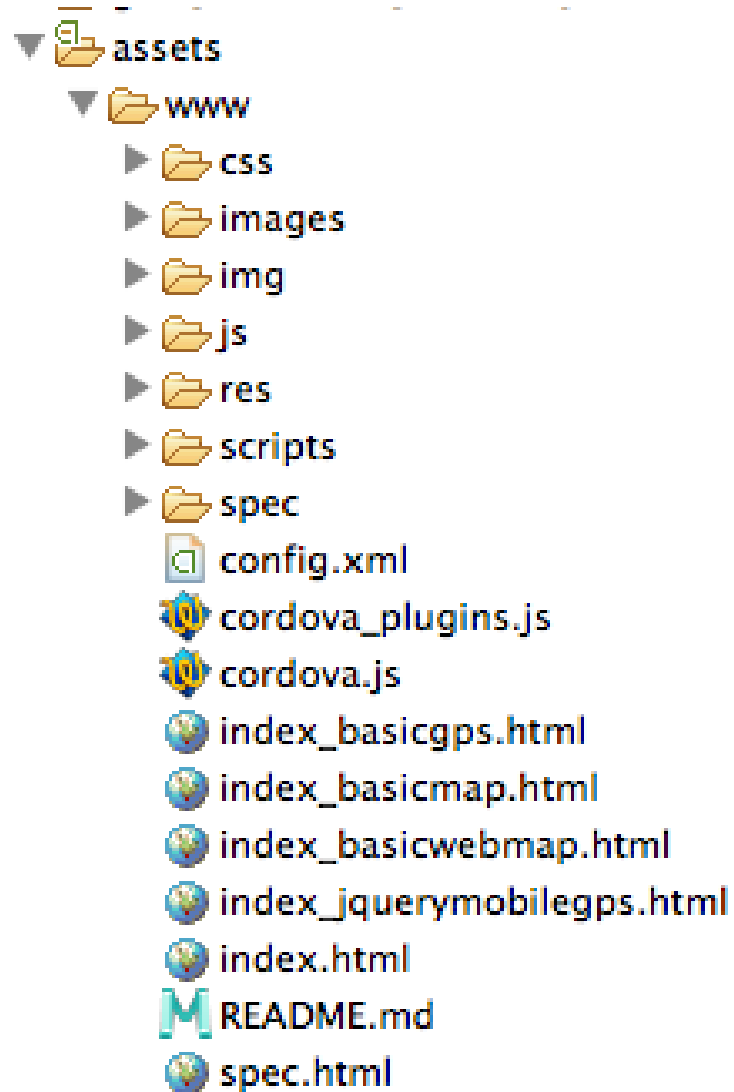
```
<feature name="Geolocation">  
    <param name="android-package"  
        value="org.apache.cordova.GeoBroker" />  
</feature>
```

## STEP 3 - in app/AndroidManifest.xml

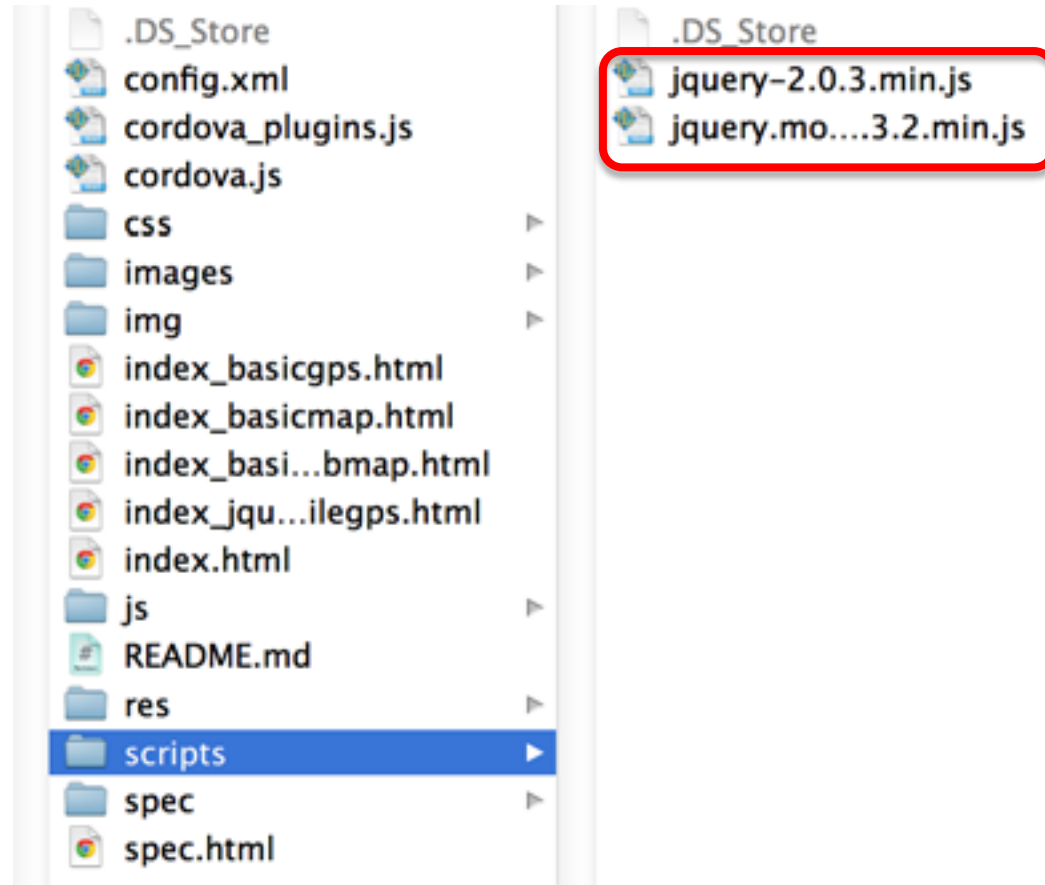
```
<uses-permission  
    android:name="android.permission.ACCESS_COARSE_LOCATION" />  
<uses-permission  
    android:name="android.permission.ACCESS_FINE_LOCATION" />  
<uses-permission  
    android:name="android.permission.ACCESS_LOCATION_EXTRA_COMMANDS" />
```



assets/www/

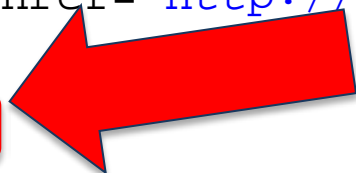


# Host JS libraries locally



# config.xml

```
<?xml version='1.0' encoding='utf-8'?>
<widget id="com.esri.sample.quickstart.phonegap"
  version="0.0.1"
  xmlns="http://www.w3.org/ns/widgets"
  xmlns:cdv="http://cordova.apache.org/ns/1.0">
  <name>QuickStartCordova</name>
  <description>
    Sample application that responds to deviceready
    event.
  </description>
  <author email="you@xyz.org" href="http://xyz.io">
    My Team
  </author>
  <content src="index.html" />
  <access origin="*" />
  <preference name="fullscreen" value="true" />
  <preference name="webviewbounce" value="true" />
</widget>
```



# Native wrapper home view

```
package com.esri.sample.quickstart.phonegap;

import android.os.Bundle;
import org.apache.cordova.*;

public class QuickStartCordova extends CordovaActivity
{
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        super.init();

        // NOTICE: Set by <content src="index.html" /> in config.xml
        super.loadUrl(Config.getStartUrl());
        //super.loadUrl(
        // "index_basicwebmap.html");
    }
}
```

# PhoneGap Life Cycle



# Application life cycle

1. Native app loads
2. cordova.js loads
3. ArcGIS JS API + CSS loads
4. Cordova "onDeviceReady" Event
5. Load Map
6. Map "load" Event
7. Turn on GPS



quickstart-map-phonegap

[github.com/Esri/quickstart-map-phonegap](https://github.com/Esri/quickstart-map-phonegap)

# Map samples

[index\\_basicmap.html](#)

[index\\_basicwebmap.html](#)

[index\\_basicgps.html](#)

[index\\_jquerymobilegps.html](#)



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