

# Rapid Prototyping Mobile Applications with PhoneGap

You might be surprised...



# Phone**Gap**

# Who is this guy?



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@andytrice



<http://github.com/triceam>



A first or preliminary model of something, esp. a machine, from which other forms are developed or copied.

# What is PhoneGap?

- Application container that allows you to build natively installed apps using HTML, CSS & JavaScript



<http://www.phonegap.com>

# Why would you want to use PhoneGap for a prototype?



Have you tried to  
build an one of  
these?

# Why would you want to use PhoneGap for a prototype?

- **It's easy**

- More people know HTML & JS, over native development
- Lower barrier of entry in mobile development
- Integrate seamlessly with HTTP services



# Why would you want to use PhoneGap for a prototype?

- **It can cost less & can get done faster**
  - Reduced developer hours + web designers can build the prototypes
  - Less development effort = faster turnaround

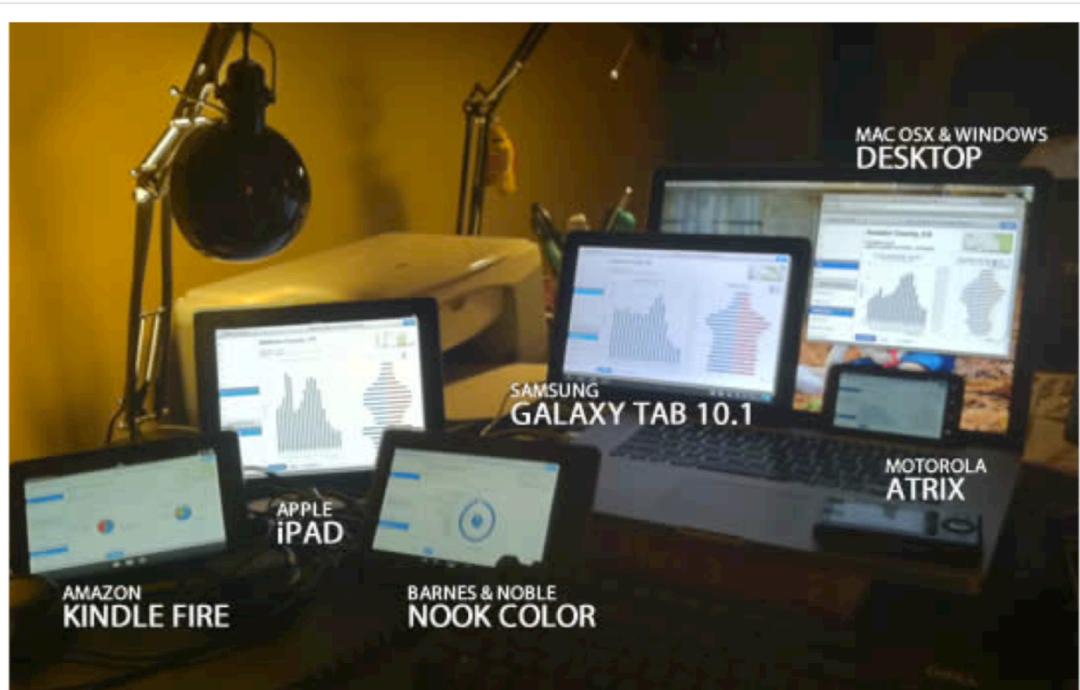


PhoneGap is good for more  
than just prototypes.

Before we go too far...

Let's examine some  
PhoneGap apps

# Why would you want to use PhoneGap in a production app?

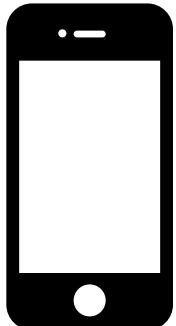
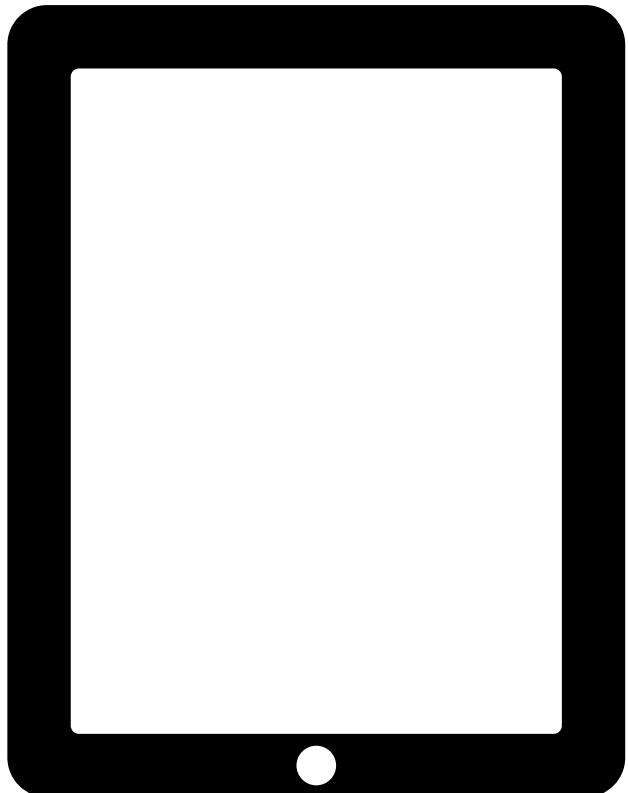
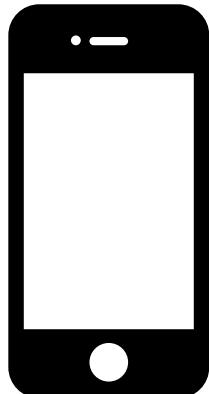


Have you tried to build an application that supports lots of platforms?

# The world isn't what it used to be...



# There are lots of variables



# Why would you want to use PhoneGap for a production app?

- Write once, run lots of places.
- Lower barrier of entry
- Reduced # of required skills
- Reduced development & long term maintenance cost
- Integration with existing HTTP-based systems



# What platforms does PhoneGap support?

iOS



webOS

symbian

bada

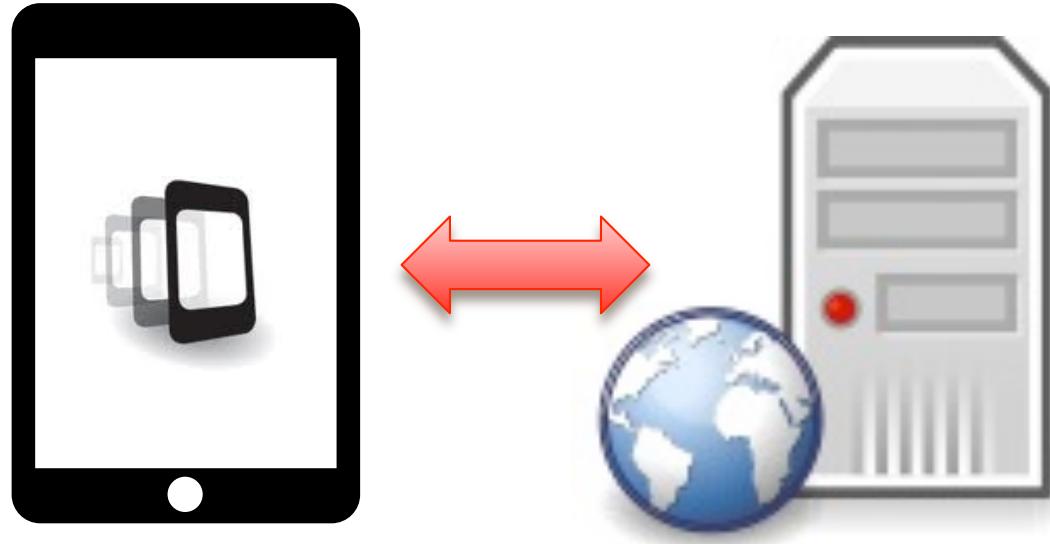
# How do PhoneGap apps work?

- Build app UI using HTML & CSS
- Build app logic & interactivity with JavaScript
- Use the PhoneGap API to interact with device

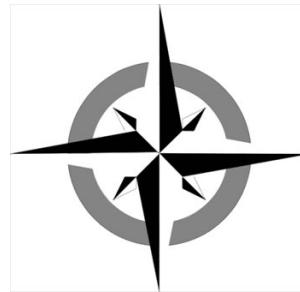


# PhoneGap Application Architecture

- Traditional Client-Server Architecture using standard web protocols
- Typically single-page client side architecture
- Typically local assets, remote data



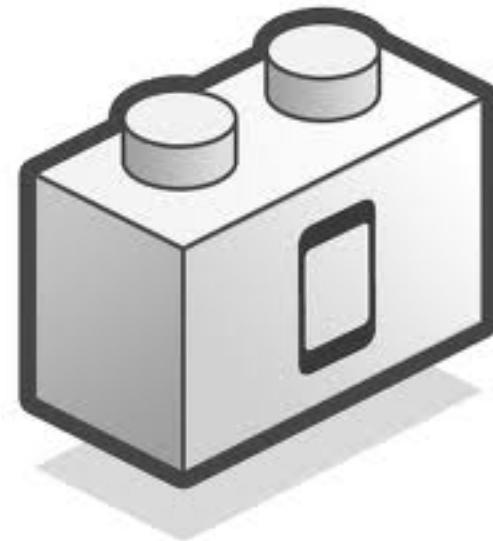
# OK, so what OS features does PhoneGap expose?



<http://phonegap.com/about/features>

# But what if you want more?

- PhoneGap is extensible with a “native plugin” model that enables you to write your own native logic to access via JavaScript.
- There are lots of open source plugins at <https://github.com/phonegap/phonegap-plugins>
- Learn more at <http://wiki.phonegap.com/w/page/36752779/PhoneGap%20Plugins>



# Since it is HTML, CSS & JSS, can I use existing tools/frameworks?

- YES!



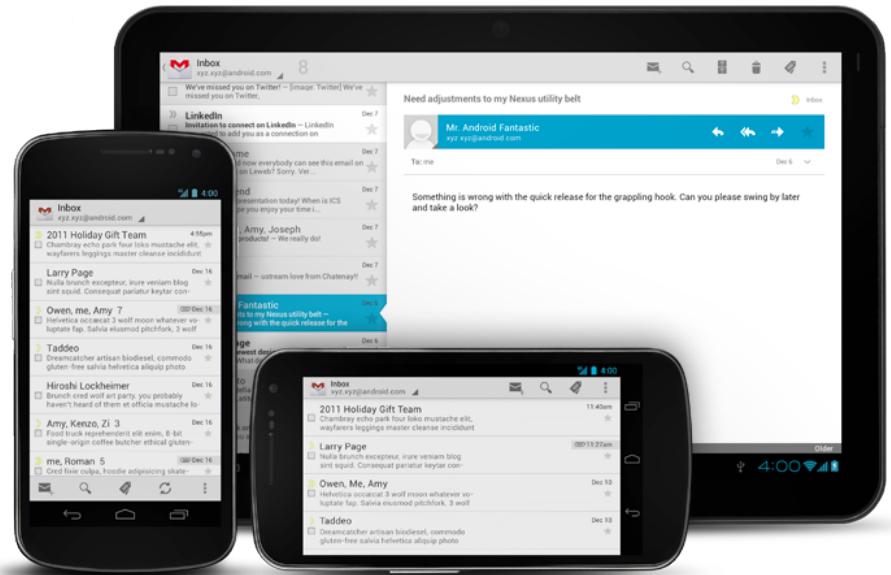
*write less, do more.*



...and many more...

Any client side web framework can be used

# iOS is not Android, Android is not Win Phone, Win Phone is not BlackBerry

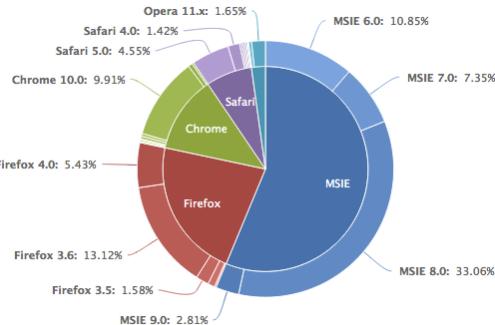


# Make your apps feel like apps, not like web pages

- **Twitter Bootstrap** – Components <http://twitter.github.com/bootstrap/>
- **iUI** – CSS to make it look native <http://www.iui-js.org/>
- **jQuery Mobile** <http://jquerymobile.com/>
- **jQuery UI** <http://jqueryui.com/>
- **Sencha Touch** – App Framework <http://www.sencha.com/products/touch/>
- **Kendo UI** – App Framework <http://demos.kendoui.com/>
- **app-UI** <http://triceam.github.com/app-UI/>
- **iScroll** <http://cubiq.org/iscroll-4>
- **Zurb Foundation** <http://foundation.zurb.com/>
- **Moobile** <http://moobilejs.com/>

# HTML/JS Visualization Frameworks

(just a few, certainly not all)



<http://www.highcharts.com/>



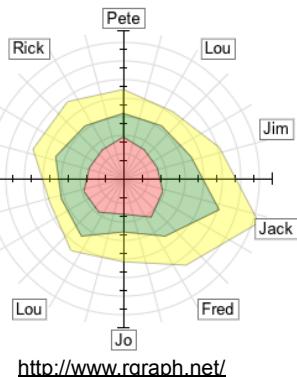
<http://www.sencha.com/products/touch/charts>



<http://www.kendoui.com/dataviz.aspx>



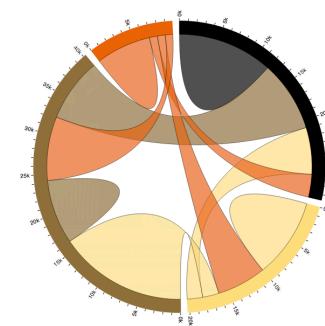
[www.amcharts.com](http://www.amcharts.com)



<http://www.rgraph.net/>



<http://raphaeljs.com/>



<http://mbostock.github.com/d3/>

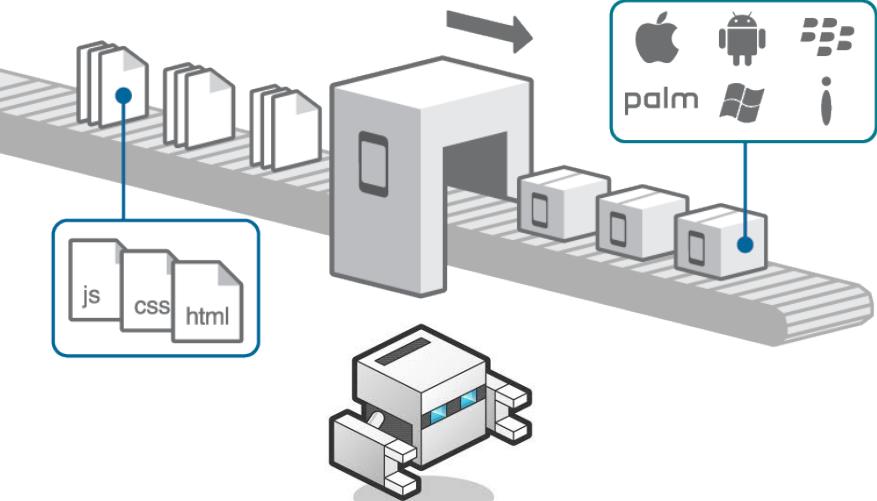
# Build/Distribution

- Platform-specific build processes

The screenshot shows a developer's desktop environment with several open windows:

- Top Left:** Xcode interface for an iPad 5.0 Simulator, displaying the file structure for a PhoneGap project.
- Middle Left:** PhoneGap Framework interface showing assets like icons and splash screens.
- Bottom Left:** Visual Studio 2010 Express for Windows Phone, showing code snippets for Windows Phone development.
- Bottom Center:** A large window titled "Windows Phone Device" showing the Windows Phone Device Manager.
- Bottom Right:** A separate window titled "Windows PhoneManifest" showing XML configuration for the Windows Phone application.

- <http://build.phonegap.com>

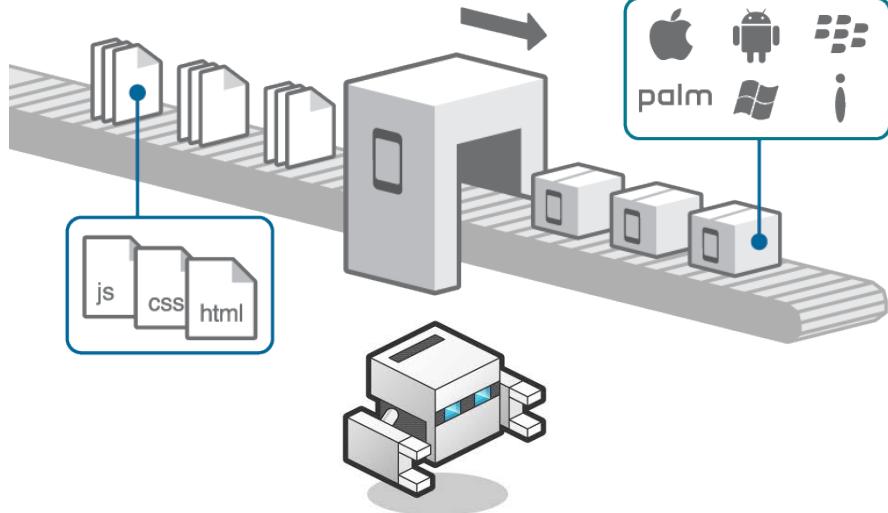


# Build/Distribution – Dreamweaver CS6

- <http://build.phonegap.com>



EXPORT



Details: [http://helpx.adobe.com/dreamweaver/using/whats-new.html#id\\_48821](http://helpx.adobe.com/dreamweaver/using/whats-new.html#id_48821)

# Debugging

A screenshot of a desktop browser window displaying a census data application. The left sidebar shows a tree view of files like 'census.html', 'bootstrap-table.js', and 'application.css'. The main content area shows a map of Archuleta County, CO, with population data. Below the map is a pie chart showing population by ethnicity/race. At the bottom, there's a developer tools interface with tabs for Elements, Resources, Network, Script, Timeline, Profiles, Audio, and Console. The Timeline tab is active, showing a timeline of network requests for various files.

## Desktop Browser Tools



<http://www.iwebinspector.com/>

A screenshot of a desktop browser window showing developer tools for a PhoneGap application. The right side of the screen displays the PhoneGap interface with a pink background and text: 'this is a green h1', 'this is a blue h1', and 'this is a red h1'. The left side shows the browser's developer tools with the Timeline tab selected, showing a timeline of network requests for files like 'bootstrap-table.js' and 'application.css'. The bottom right corner shows a small image of an iPhone displaying the same pink text.

<http://debug.phonegap.com>

# Open Source

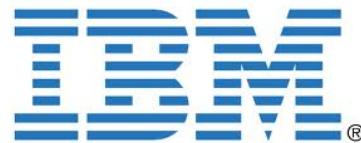
- Did I also mention that PhoneGap is 100% open source?
- PhoneGap is the commercial name for Apache Cordova.
- PhoneGap/Cordova was contributed to Apache Software Foundation by Adobe.
- You can get involved today!
  - <http://incubator.apache.org/cordova/>



# Who is using PhoneGap today?



**WIKIPEDIA**  
The Free Encyclopedia



# What next?

- Get started with PhoneGap today!
  - <http://phonegap.com/start>
  - <http://wiki.phonegap.com/>
- Join PhoneGap Google Groups
  - <http://groups.google.com/group/phonegap?pli=1>
- ...and most importantly... **HAVE FUN!**

# Thank You!



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<http://tricedesigns.com>



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