PhoneGap

The open source mobile framework that supports 6 platforms

presented by Lukas Jeter
What is PhoneGap?

PhoneGap is a framework that is based on the open standards of HTML5 and allows developers to use common web technologies (HTML, CSS, and JavaScript) to build applications for multiple mobile platforms from a single code base.
History

- Project started at an iPhoneDevCamp in San Francisco, by co-creators Brock Whitten and Rob Ellis
- Won People’s Choice Award at O’Reilly Media’s 2009 Web 2.0 Conference
- Initially supported iPhone, Android and BlackBerry
- Currently developed by Nitobi Inc. under an MIT license
With PhoneGap you can

- Take advantage of HTML5 and CSS
- Use JavaScript to write your code
- Access Native Features of the supported platforms
- Deploy your app to Multiple Platforms
- Take advantage of the PhoneGap Build service
- Use Tools from the community
- Add PhoneGap Plugins to your project
- Get help from the growing community
## Supported features

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<th>Android</th>
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<th>OS 5.x</th>
<th>OS 6.0+</th>
<th>Palm</th>
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PhoneGap Tools

Because PhoneGap is an open source, community-supported project, many extensions to the basic framework are available.

Examples:

- Plugins
  - Barcode Scanner
  - File Uploader
- JavaScript libraries
  - Jquery Mobile
  - The Dojo Toolkit
- Tools
  - Sencha Touch
How it works

1. Install the native sdk of your target mobile platform
2. Download the PhoneGap zip file
3. Setup a new project in the target platform with PhoneGap parameters
4. Write HTML & JavaScript mobile application
5. Build & deploy using target platform’s SDK

For platform-specific step-by-step instructions see: http://www.phonegap.com/start
“Write once. Compile in the cloud. Run anywhere.”
The PhoneGap Build service

- Write app using HTML, CSS or JavaScript
- Upload it to the PhoneGap Build service
- Get back app-store ready apps for Apple iOS, Android, Palm, Symbian, BlackBerry
- Current development to also support Windows, MeeGo and Bada
- PhoneGap Build service is currently in beta testing and is free to register and use
- Will remain free for open source projects

https://build.phonegap.com/
API Reference

**Accelerometer**
Tap into the device's motion sensor.

**Compass**
Obtain the direction that the device is pointing.

**Device**
Gather device specific information.

**Camera**
Capture a photo using the device's camera.

**Contacts**
Work with the devices contact database.

**Events**
Hook into native events through JavaScript.
API Reference, continued

**File**
Hook into native file system through JavaScript.

**Media**
Record and play back audio files.

**Notification**
Visual, audible, and tactile device notifications.

**Geolocation**
Make your application location aware.

**Network**
Quickly check the network state.

**Storage**
Hook into the devices native storage options.
API Reference, class example

Accelerometer
Captures device motion in the x, y, and z direction.

Methods
- accelerometer.getCurrentAcceleration
- accelerometer.watchAcceleration
- accelerometer.clearWatch

Arguments
- accelerometerSuccess
- accelerometerError
- accelerometerOptions

Objects (Read-Only)
- Acceleration
API Reference, method example

`accelerometer.getCurrentAcceleration`
Get the current acceleration along the x, y, and z axis.

```javascript
navigator.accelerometer.getCurrentAcceleration(accelerometerSuccess, accelerometerError);
```

**Description:**
The accelerometer is a motion sensor that detects the change (delta) in movement relative to the current device orientation. The accelerometer can detect 3D movement along the x, y, and z axis.
The acceleration is returned using the `accelerometerSuccess` callback function.

**Supported Platforms:**
- Android
- BlackBerry WebWorks (OS 5.0 and higher)
- iPhone
API Reference, method example cont.

Quick Example:

```javascript
function onSuccess(acceleration) {
    alert('Acceleration X: ' + acceleration.x + '
    Acceleration Y: ' + acceleration.y + '
    Acceleration Z: ' + acceleration.z + '
    Timestamp: ' + acceleration.timestamp + '
    ');
}

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

navigator.accelerometer.getCurrentAcceleration(onSuccess, onError);
```

iPhone Quirks:
- iPhone doesn't have the concept of getting the current acceleration at any given point.
- You must watch the acceleration and capture the data at given time intervals.
- Thus, the `getCurrentAcceleration` function will give you the last value reported from a phoneGap `watchAccelerometer` call.
Hello PhoneGap: index.html

<!DOCTYPE HTML>
<html>
<head>
  <title>PhoneGap</title>
</head>
<body>
  <h1>Welcome to PhoneGap</h1>
  <h2>Edit assets/www/index.html</h2>
  <script type="text/javascript" charset="utf-8" src="phonegap.js"></script>
  <script type="text/javascript" charset="utf-8">
    document.addEventListener("deviceready", function() {
      alert('initialized');
    }, true);
  </script>
</body>
</html>
Sample app: screenshot

Welcome to PhoneGap!

Edit assets/www/
inited

Alert

OK
Who uses PhoneGap?

• **JustOneMore by Robot Limited**
  
  Designed to help you discover inspiring video content Just One More provides a simple, addictive interface that brings the very best of Vimeo to the iPad/iPhone. Launched on the App Store in February and built using web-only technologies this free app shows that you really can make immersive, content-rich mobile apps using the latest in HTML5, CSS3 and JavaScript.

• **Orbium by Björn Nilsson**
  
  Fast moving action/puzzle game with high quality graphics and touch screen optimized controls. The aim is for it to work in any browser, both mobile and desktop. PhoneGap for app store prescence.

• **harmonious. by The Angry Robot Zombie Factory**
  
  Harmonious is a “smart” sketchpad that uses the lines you’ve already drawn to influence new lines. You can create some really artistic pieces and then upload them to the harmoniousapp.com gallery site. It uses the Harmony library from Mrdoob, jQTouch for interactions and the Glyphish icons, then wraps the whole thing up in PhoneGap.
Key Benefits

• Requires knowledge of common web technologies (HTML, CSS, JavaScript) rather than multiple distinct mobile platforms

• Open source – can be altered or extended by anyone

• Currently offers the widest major platform coverage among other similar frameworks
Limitations

- Applications are rendered using the platforms’ web browser engine, not with the native UI objects

- Doesn’t support *every* available platform... yet
Resources

- PhoneGap Docs: docs.phonegap.com
- PhoneGap Wiki: wiki.phonegap.com
- PhoneGap Google Group: The PhoneGap Google Group
- PhoneGap IRC:
  - Server: irc.freenode.net
  - Channel: #phonegap
Support Packages

- Typical support packages are available to enterprise customers
- Services include private forums, phone and email support, training, etc.
- Prices range from $250/yr to $50,000/yr
For more info & to download the framework

www.phonegap.com

Thank You!