Modern Web Development Part 7:
Adobe PhoneGap

Overview

In the Bad Old Days (™), Web development consisted of HTML, Javascript and a plain text editor. The technology has now matured to the point where we can put together a full, end-to-end development workflow that includes dependency management, build automation and debugging.

Modern web development is not about having one, all-purpose software application that tries to do everything. It's about putting together a kit of smaller, single-purpose tools and connecting them together in a way that fits your coding style.

The previous guide looked at Apache Cordova, a popular open source framework for deploying mobile web applications. Now we're going to look at Adobe PhoneGap. PhoneGap is based on Cordova and like Cordova, adds a native code "wrapper" to your web app, allowing it to access mobile device hardware like the GPS or the accelerometer. The main difference is that PhoneGap adds some build options and also has a Web tool as well as a desktop and mobile application in addition to the command line utility.

You Have:

- MWD Toolkit (see Part 1 for details)

Installation

The PhoneGap command line tools run on Node.js so we can install them with npm. There are additional dependencies to install based on what mobile platforms you are supporting. Refer to the PhoneGap platform guide (https://phonegap.apache.org/docs/en/latest/guide/platforms/) for more information.

For a basic installation, open a command prompt and run the command:

```
npm install -g phonegap@latest
```

To get a complete list of command line options, type phonegap by itself.
Usage (Command Line Only)

You can use the `phonegap` command all by itself to set up your project. There are also several Yeoman generators that will scaffold your project. For now we'll just use `phonegap`.

Since PhoneGap is based on Cordova, the command line build options are exactly the same. Just replace `cordova` with `phonegap`.

If you don't have access to a physical device for the platform you are targeting, you will need to use the command line utility alone.

Usage (Command Line + Mobile App)

You can also test your app on your mobile device using the PhoneGap mobile app. You can find it on the app store for your platform. Currently, iOS, Android and Windows Phone are supported.

- Create your PhoneGap project as above.
- Make sure your device has the PhoneGap mobile app installed and is on the same network as the computer with your PhoneGap project.
- In your project folder, run the command:

  `phonegap serve`

A local Web server will start up and you will be given the IP address and port where you can access your app.
- Start up the PhoneGap app on your test device.
- Type in the address and port for the PhoneGap server and press Connect.
After a moment, you should see the message "Success!" followed by "Device is Ready".
NOTE: This is a "Live Reload" server. That is, you can make changes to your code while it's running and the changes will immediately show up on your device.

Let's test the Live Reload feature.
• **Open the** index.html **file under the** www **folder and modify the line**

    <h1>PhoneGap</h1>

    to read

    <h1>My Little PhoneGap Pony</h1>

• **Save your changes and in a moment you should see your changes reflected in the running app on your device.**
When you're done, press <Ctrl>-C to stop your app server.
Usage (Desktop App + Mobile App)

- Download and install the PhoneGap desktop application (currently available for Mac OS X and Windows) at http://docs.phonegap.com/getting-started/1-install-phonegap/desktop/.
- Open the PhoneGap desktop.
You will be given the option of opening an existing PhoneGap project by dragging the project folders onto the PhoneGap Desktop. You can also create a new project. Let's do that by clicking on the plus (+) sign and select Create New PhoneGap Project.

- Fill in the location for your project folder and the name of your app (ex. MyApp).
- Click on Create project.
● Your project folder will be created and populated and the app server will start running automatically.
● Let's look at some more options in the PhoneGap desktop. Click on the gear icon on the left-hand toolbar.
● This will let you change the address and port for the application server and choose whether to send usage data to Adobe.
● Click on the command prompt icon below the gear icon.
This is the log for your application server. If you're having issues getting your mobile app to connect, you may wish to check here.

Click on the question mark icon.
As you might suspect, this contains links to PhoneGap support.

Building Your App (Command Line)

As before, the build and package command line options are exactly the same as they are for Apache Cordova.
Building Your App (PhoneGap Build Cloud Service)

Adobe also offers a cloud-based build service that you can use with a Web browser. The main advantages:

- No need to install additional software
- Target multiple platforms simultaneously
- Easy collaboration with other developers
- Integrates with your Git or SVN repository
- Share your apps with colleagues, clients, friends and family

NOTE: PhoneGap Build Cloud Service is a paid service. There is a free plan available which allows unlimited public apps and a single private app. In any case, you will have to register for an Adobe account.

- Point your Web browser to https://build.phonegap.com/
- If you already have an account, sign in. If not, sign up for a new account then sign in.
- Once you login, you will be taken to your build page:
Detailed usage of this application is beyond the scope of this guide. For more information, see the online documentation at http://docs.build.phonegap.com/en_US/#googtrans(en)