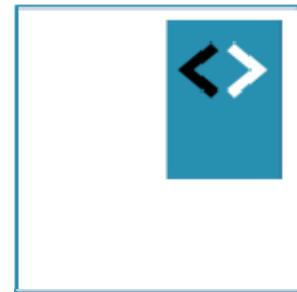




Ministerie van Defensie

Crossplatform Mobile Apps

Module 8 – Inleiding PhoneGap



Peter Kassenaar – info@kassenaar.com

Peter Kassenaar – info@kassenaar.com

Twee delen

The image displays two side-by-side screenshots of mobile application frameworks. On the left is the Framework7 website, featuring an orange header with the text "Framework7" and a large "7" icon. It claims to be a "Full featured HTML framework for building iOS & Android apps". Below the header are download and get started buttons, and links for Docs, Templates, Apps Showcase, and Forum. A sidebar on the right shows a smartphone displaying the Framework7 interface, which includes a navigation bar and a list of components like "About Framework7" and "Accordion". On the right is the Cordova/PhoneGap website, featuring a dark header with the Apache Cordova logo and the text "CORDOVA™". It highlights "Mobile apps with HTML, CSS & JS" and "Target multiple platforms with one code base". Below the header is a large image of a robot head. At the bottom, there are three icons: a document for "Reusable code across platforms", a signal for "Support for offline scenarios", and a device for "Access native device APIs".

Framework 7

Cordova/PhoneGap

Doelen van de training

1. **Theorie:** Algemene kennis van App-ontwikkeling en diverse soorten apps (native, hybride, web).
2. **Praktijk:** Hybride apps maken met HTML, CSS en JavaScript.
3. **Praktijk:** Libraries kunnen inzetten om apps te maken.
Specifiek: gebruik van Framework 7 en Cordova.
4. **Praktijk:** De app builden en testen op een mobile device.
5. **Theorie:** Kennis van distributie via App Store of op andere wijze.

Vanaf vandaag:

*Tweede deel doel 3 – Werken
met PhoneGap / Cordova*

Uitgangspunt : App gereed

The screenshot shows a browser window with the URL `localhost:5000`. The page displays a mobile version of a Google Maps application. On the left, there's a search bar with the text "Amersfoort" and a green "ZOEK" button. Below the search bar is a map of Amersfoort, with a red marker indicating the location. On the right, the browser's developer tools are open, specifically the "Sources" tab. The file "app.js" is selected, showing the following code:

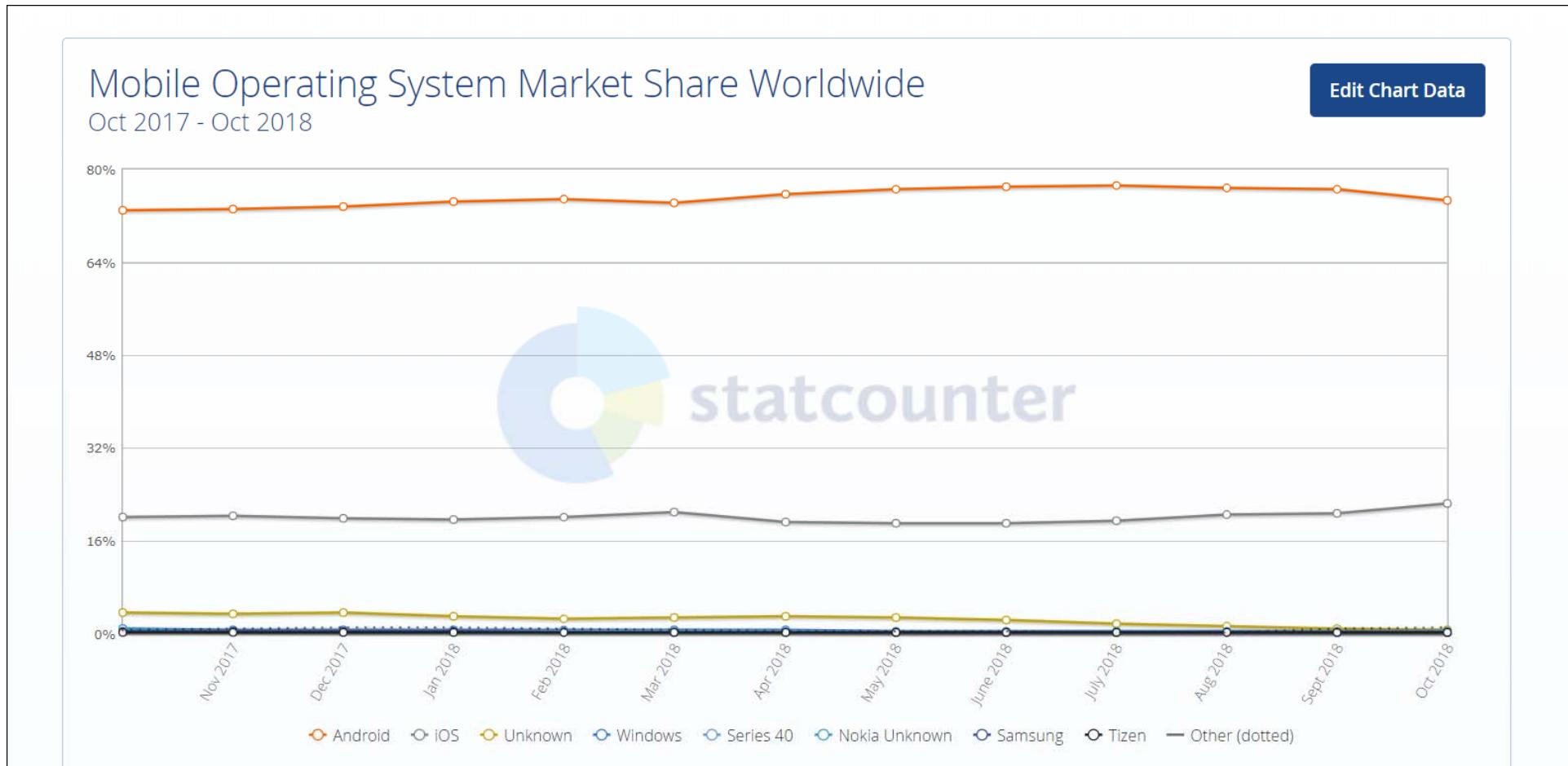
```
// app.js
var app = new Framework7({
  root: '#app', // <-- Verwijst naar <div id="app">
  name: 'Google Maps project', // <-- Naam van de applicatie
  id: 'com.mindef.project02', // <-- naam van de bundle,
  routes: [
    // <-- Routes/pagina's binnen de app
    {
      path: '/',
      url: './index.html'
    },
    {
      path: '/maps-component/',
      componentUrl: './pages/maps-component.html'
    }
  ]
  // <-- overige parameters
});
// Elke app heeft een main view, verwijst naar <div class="view-main">
var mainView = app.views.create('.view-main');
```

The developer tools sidebar on the right shows various monitoring and debugging features like Watch, Call Stack, and Breakpoints.



Phone**Gap**

Marktaandelen 2018



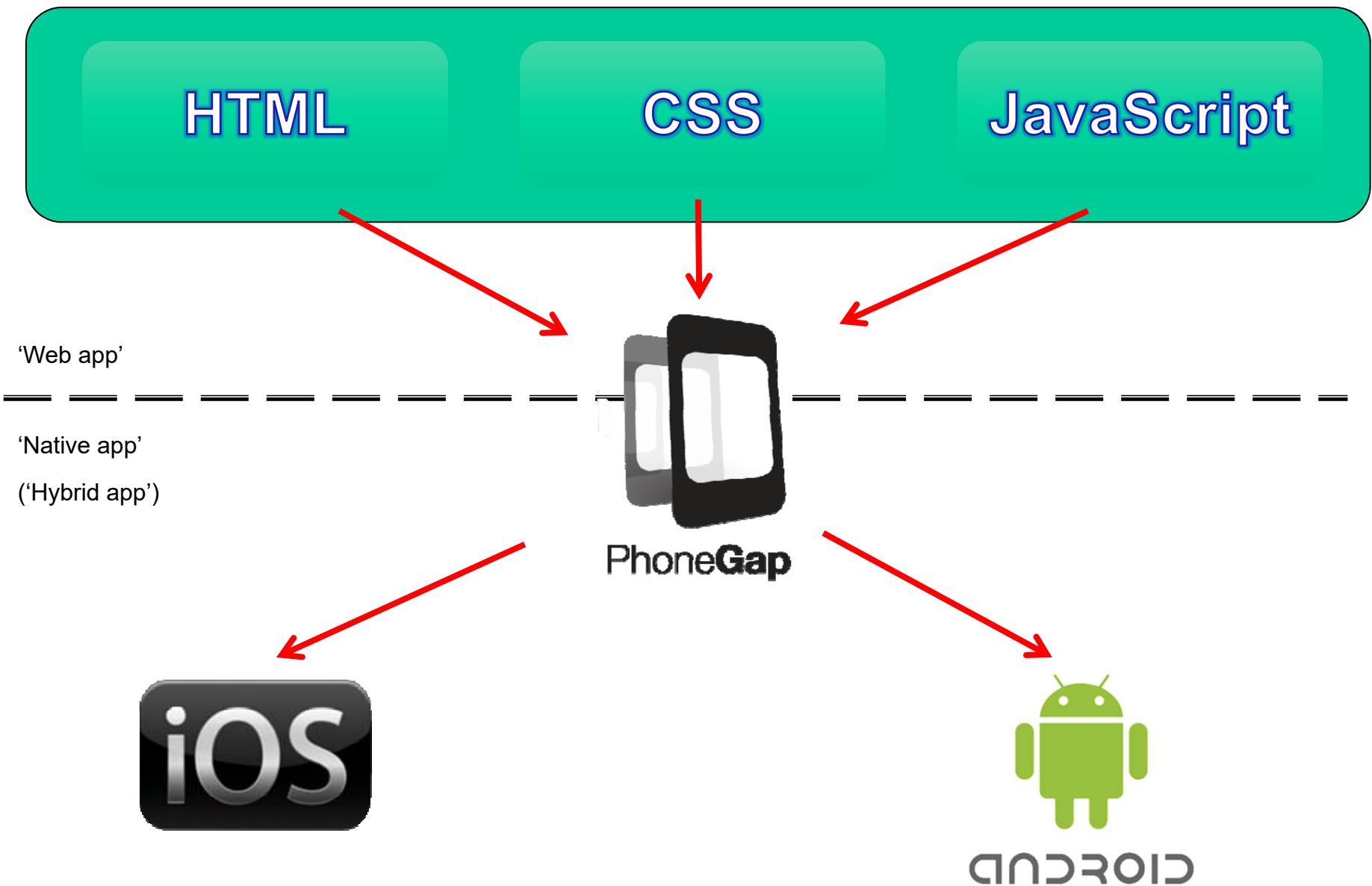
<http://gs.statcounter.com/os-market-share/mobile/worldwide>

Conclusie

Android is Koning : > 75%

iOS op verre afstand: 18-20%

Anderen doen niet (meer) ter zake



Wat kun je maken?

 Adobe PhoneGap

Products Get Started Docs App Showcase Blog

App Showcase

Ever wondered who is building amazing apps using PhoneGap?

Narrow by platform: IOS ANDROID WINDOWS

 FanReact by FanReact	 Localeur by Localeur	 snowbuddy by We Make Awesome Sh	 Sworkit by Nexercise Inc	 BrowserQuest by Mads & Peter Sandberg Brun	 My Heart Camera by ANDG CO., LTD.
					

<https://phonegap.com/app/>

Hybrid vs. Native apps

	Hybrid	Native
Skills	HTML, JS, CSS	Obj C, Java, C/C++
Cross Platform	Yes	No
Device APIs	Yes	Yes
Distribution	App Store	App Store
Updates	App Store + Instant	App Store
Performance	Fast	Faster

Bron: <http://coenraets.org/blog/>

PhoneGap

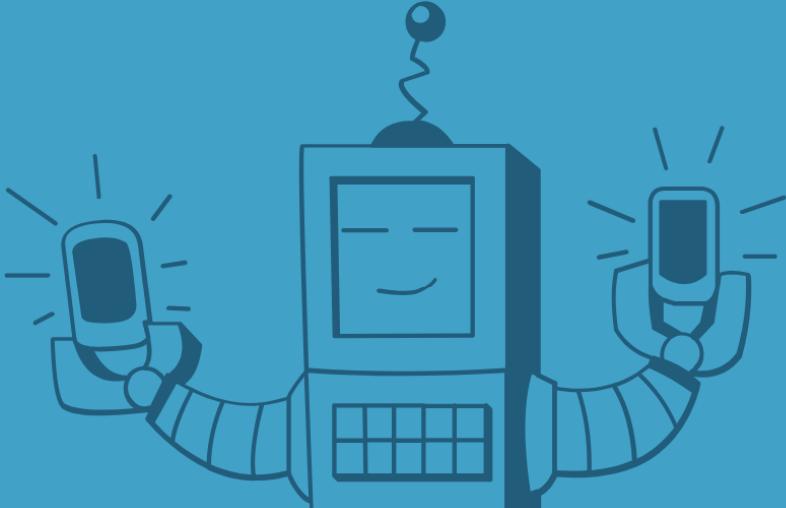
Adobe

Adobe PhoneGap

Products Get Started Docs App Showcase Blog

Build amazing mobile apps powered by open web tech.

START NOW LEARN MORE



Create your app with PhoneGap

Reuse existing web development skills to quickly make hybrid applications built with HTML, CSS and JavaScript. Create experiences for multiple platforms with a single codebase so you can reach your audience no matter their device.

Package your app in the cloud

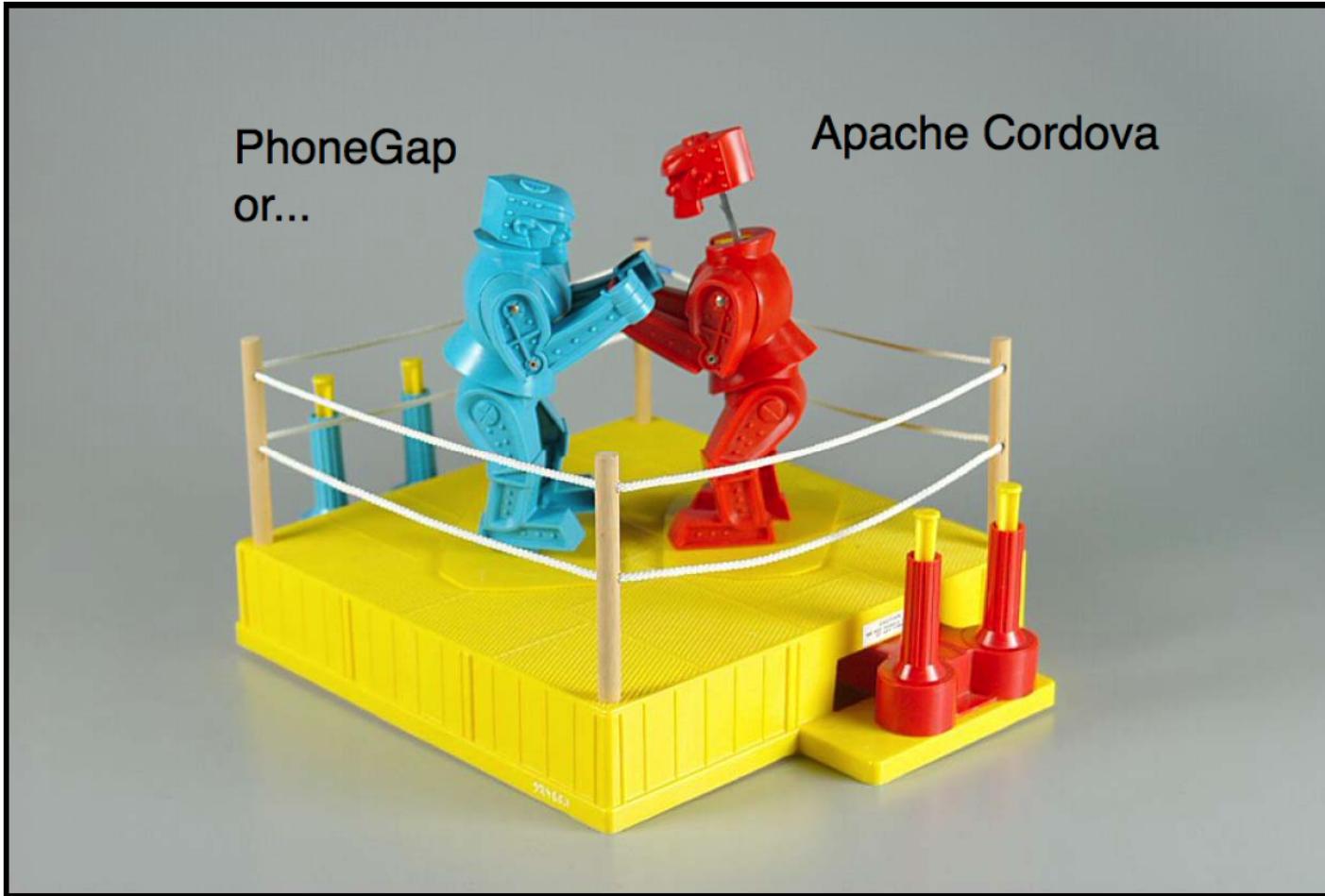
PhoneGap Build takes the pain out of compiling PhoneGap apps. Get app-store ready apps without the headache of maintaining native SDKs. Our PhoneGap Build service does the work for you by compiling in the cloud.

FIND OUT MORE >

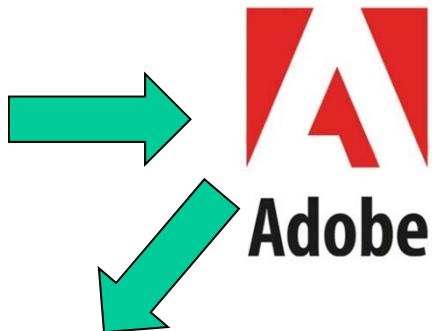
Wat is PhoneGap?

- *Aanvullende* library voor maken van hybrid apps op basis van web-apps
 - 1 resource tree
 - 2 platformen (voorheen 3, voorheen 7)
- *Wrapper*- *Bridge* naar native device sensors

PhoneGap or Cordova?



What's in a name...



The image illustrates the evolution of mobile development tools through three stages:

- Top Left:** The nitobi logo, featuring a blue square with a white stylized 'n' or 'T' shape, followed by the word "nitobi" and the tagline "built for people".
- Top Right:** The Adobe logo, consisting of a red stylized 'A' above the word "Adobe" in black lowercase letters.
- Middle Left:** A screenshot of the Apache Cordova website. It features a white robot head icon on the left and a grid background. The text reads: "Apache Cordova is a platform for building native mobile applications using **HTML, CSS** and **JavaScript**".
- Middle Right:** A screenshot of the Adobe PhoneGap Build website. It has a dark teal background. At the top, there are navigation links: "Adobe & HTML", "Our Mission", "Web Standards", "Open Source", "Edge Tools & Services" (which is highlighted), and "Events". On the right side, there is a logo for "Bd" and the text "Adobe PhoneGap Build Package mobile apps in the cloud". Below this, there is an illustration of a smartphone connected to a central cloud-like hub, which is connected to a laptop and other devices.

Adobe:

“You can think of Apache Cordova as the engine that powers PhoneGap, similar to how WebKit is the engine that powers Chrome or Safari.

(...)

Over time, the PhoneGap distribution may contain additional tools that tie into other Adobe services, which would not be appropriate for an Apache project. PhoneGap will always remain free, open source software and will always be a free distribution of Apache Cordova.”

Brian Leroux, Adobe

<http://phonegap.com/2012/03/19/phonegap-cordova-and-what%E2%80%99s-in-a-name/>

Dus, twee redenen :

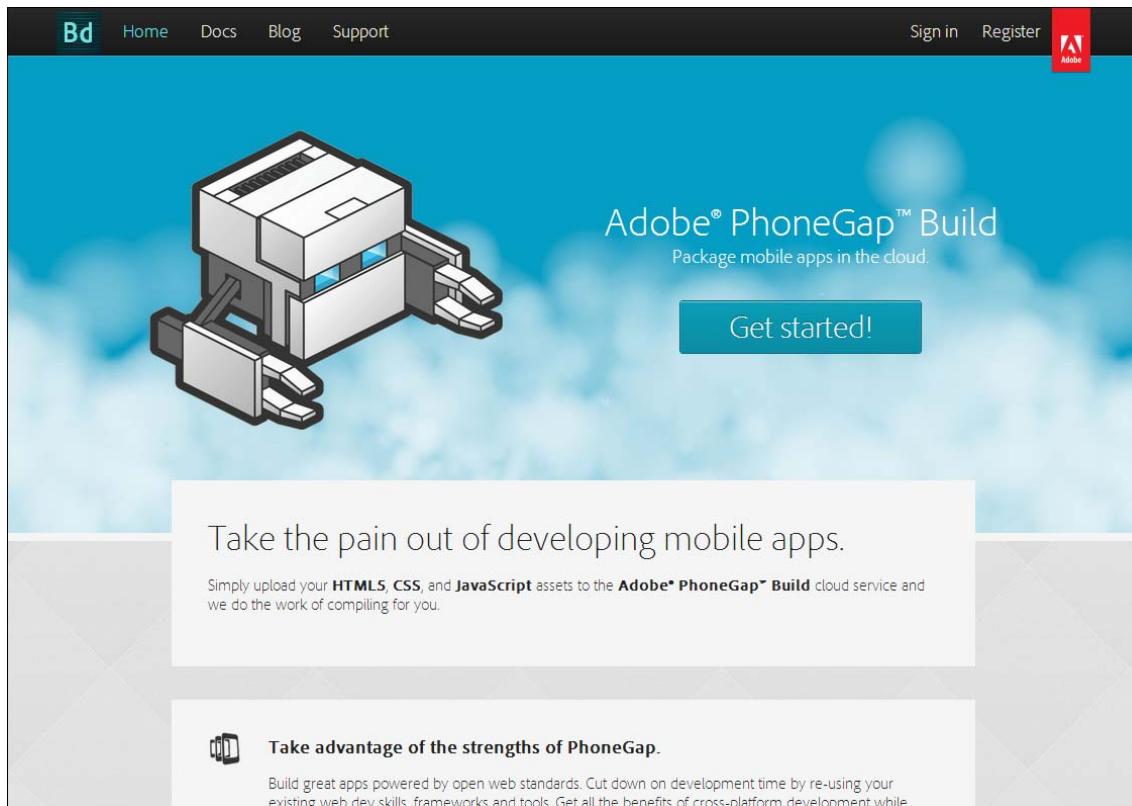
- Deployment naar App store(s)
(wrapper)
- Native device sensors & API's
(bridge)

Development : platformen

- Je *moet* over het doelplatform beschikken:
 - iOS? → Mac + OS X + Xcode
 - Android? → OS + Eclipse + Android SDK
 - Windows? → Visual Studio + .NET framework
- Je *moet* over Developer Account beschikken voor publicatie in diverse App stores

Geen platform?

- Gebruik Service: *PhoneGap Build*



<https://build.phonegap.com/>

Xamarin - Build apps with x

xamarin.com

Xamarin Tour Customers Pricing Enterprise Training Developers Support Blog SIGN IN

Create Native iOS, Android, Mac and Windows apps in C#.

Join our community of 501,308 developers.

Download Now ▶

Rdio.Xamarin - Microsoft Visual Studio

FILE EDIT VIEW PROJECT BUILD DEBUG TEAM SQL TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP

Start ▾ AppStore ▾ iPhone

Now Playing Love In The Future John Legend 2015 - 22 songs (1:13:39)

Magic Chairs

The Silicone Veil Susanne Sundfør

Aim High

Harmonics Eterklang

Diamonds Susanne Sundfør

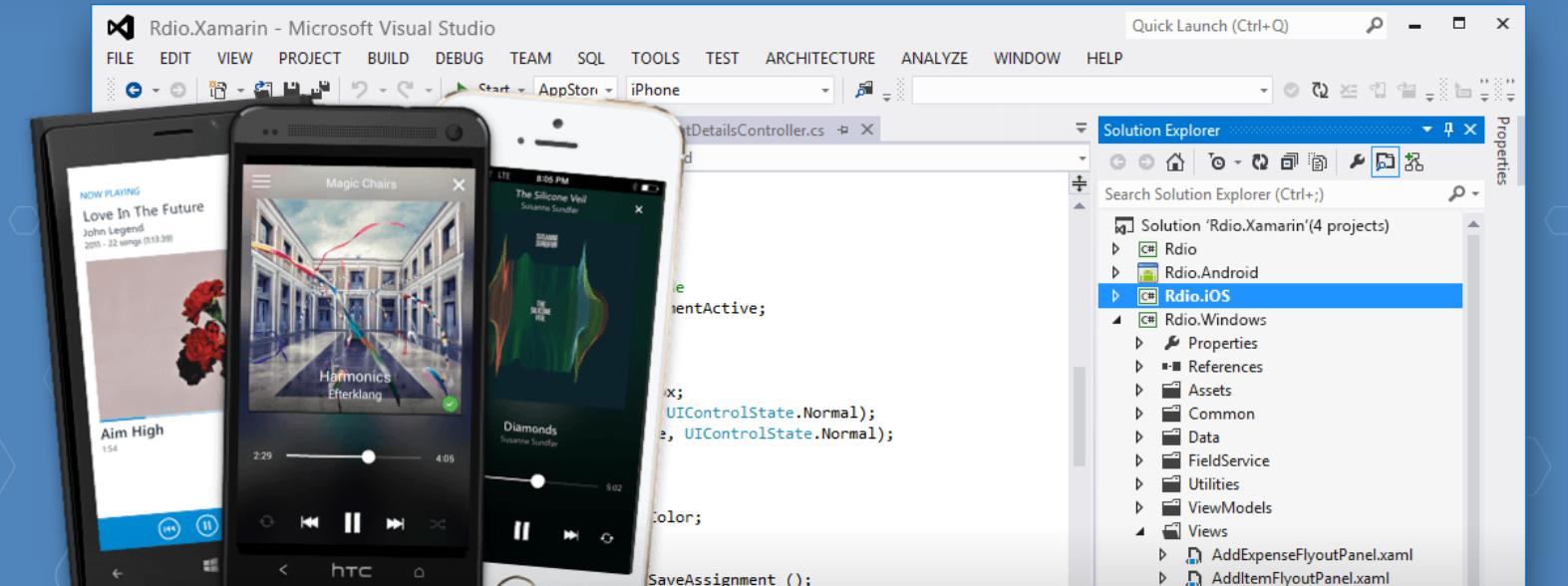
SaveAssignment ();

Solution Explorer

Search Solution Explorer (Ctrl+.)

- Solution 'Rdio.Xamarin'(4 projects)
 - Rdio
 - Rdio.Android
 - Rdio.iOS**
 - Rdio.Windows
 - Properties
 - References
 - Assets
 - Common
 - Data
 - FieldService
 - Utilities
 - ViewModels
 - Views
 - AddExpenseFlyoutPanel.xaml
 - AddItemFlyoutPanel.xaml

LATEST HEADLINES | January 22nd Xamarin Evolve 2014 – Save the Date



<http://xamarin.com/>

Huidige focus - PhoneGap

- Native device hardware en software aanspreken
 - compass
 - accelerometer
 - camera
 - audio/video
 - contacts



PhoneGap – twee manieren

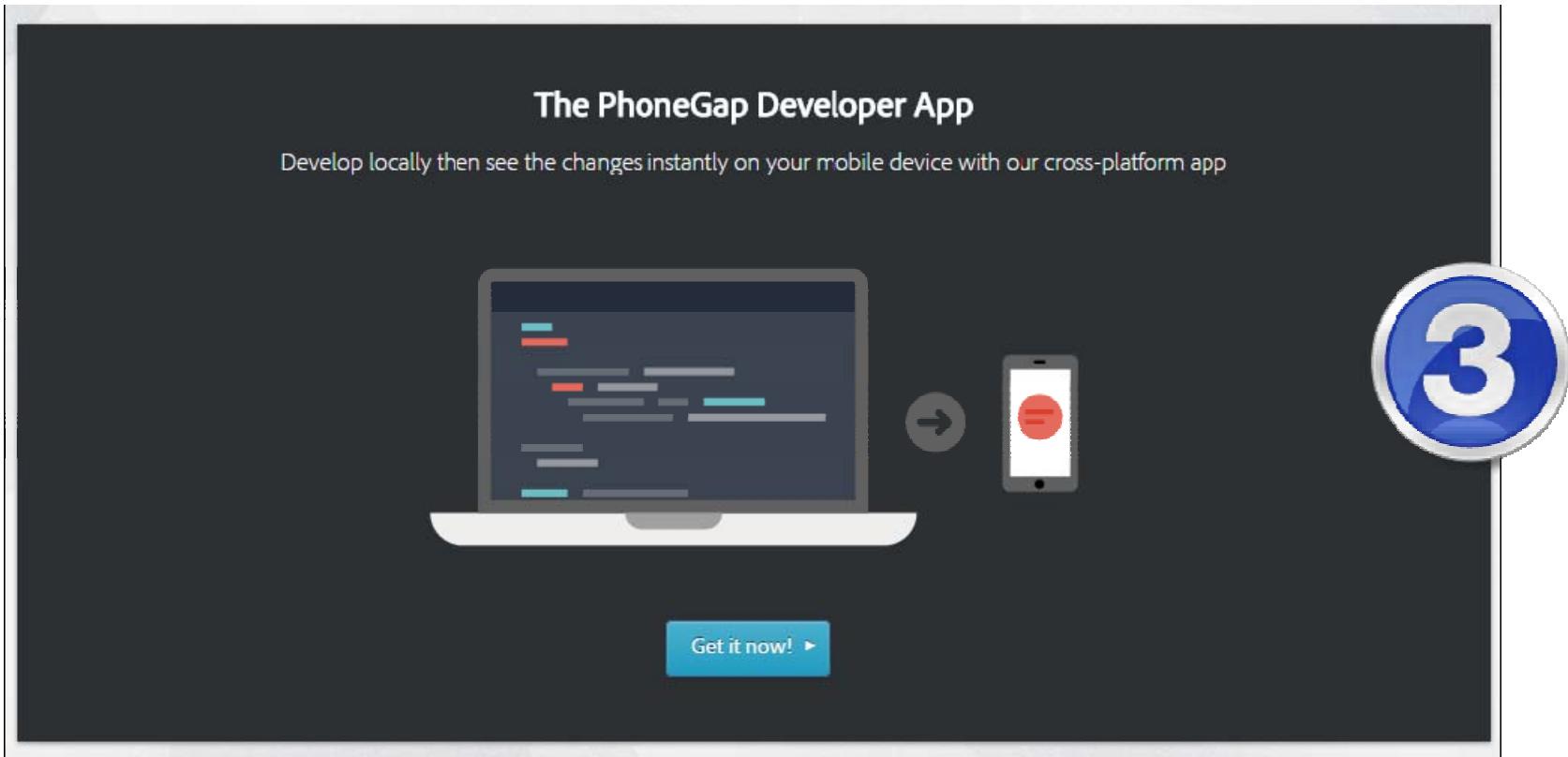


Getting Started Guides

- [Getting Started with Android](#)
- [Getting Started with BlackBerry](#)
- [Getting Started with iOS](#)
- [Getting Started with Symbian](#)
- [Getting Started with WebOS](#)
- [Getting Started with Windows Phone](#)
- [Getting Started with Bada](#)
- [Getting Started with Tizen](#)

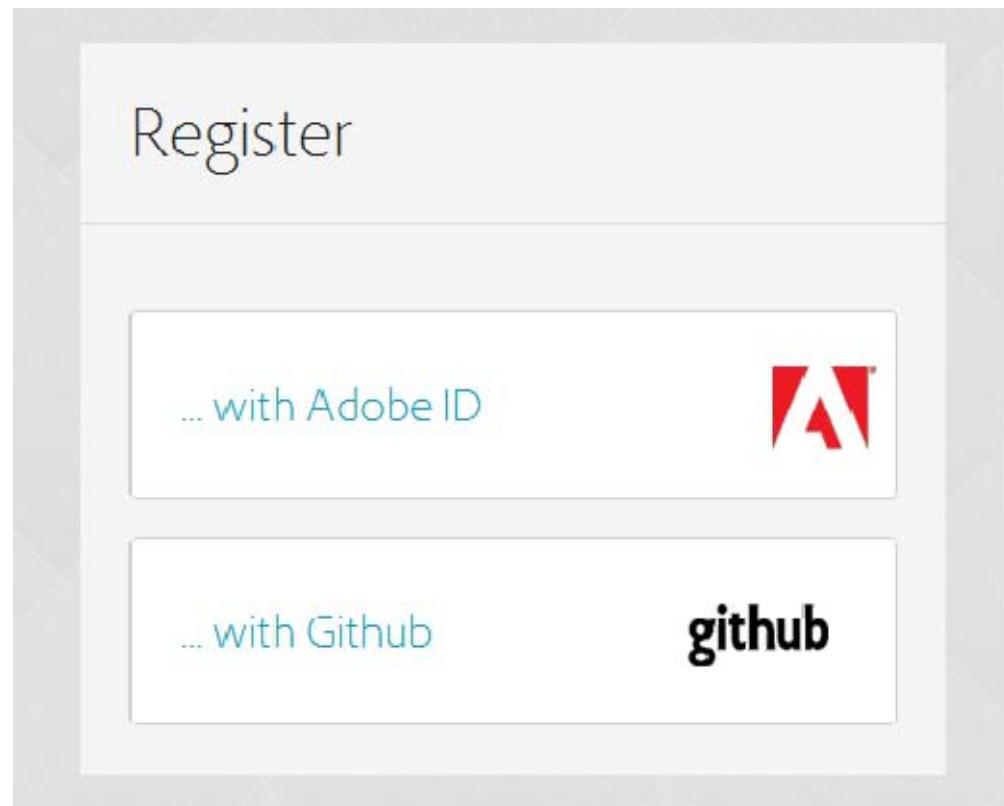


Relatief nieuw: PhoneGap Developer App



PhoneGap Build

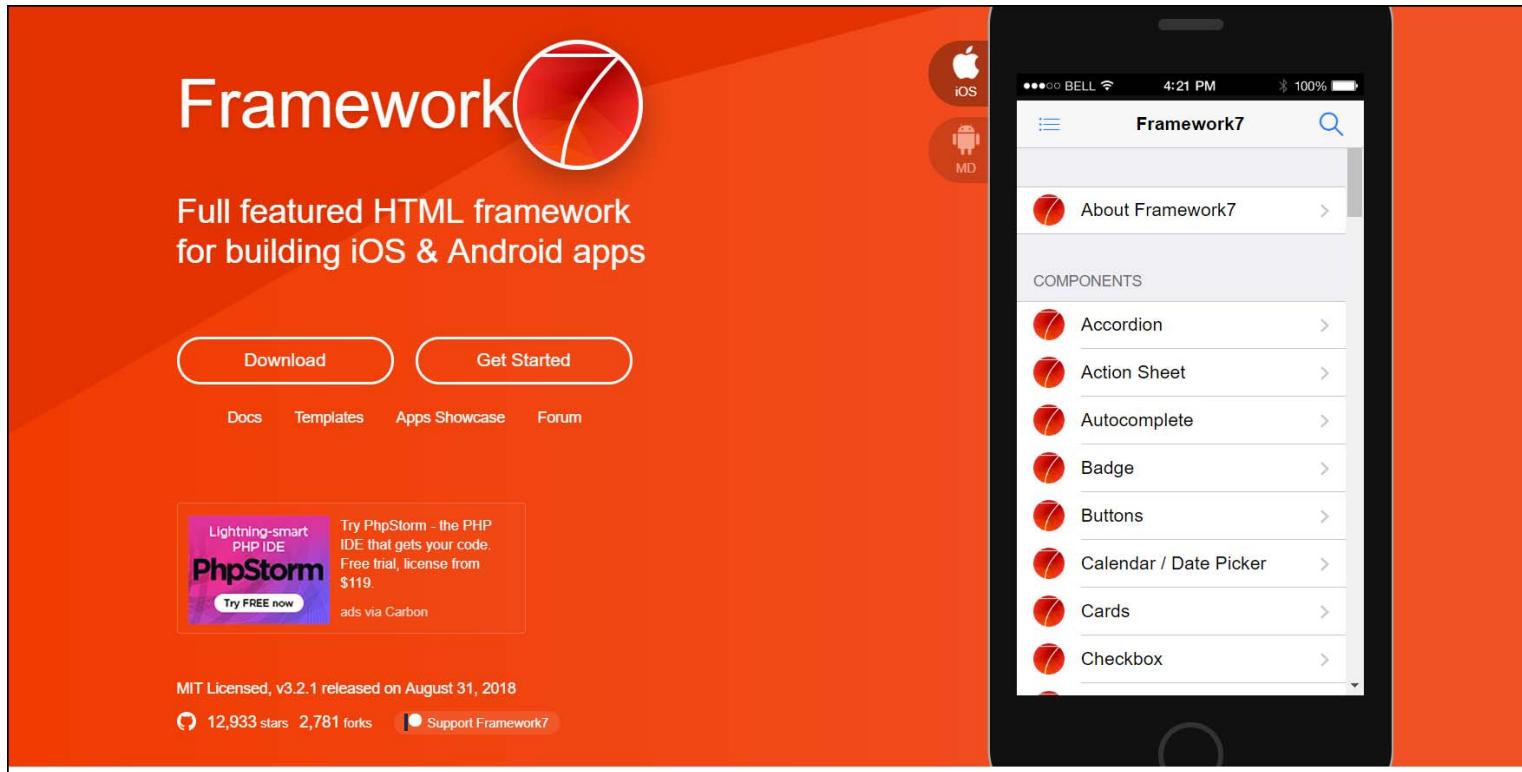
- aanmelden
- uploaden
- wachten
- downloaden
- installeren



Voorbereiding

- Maak & test de app lokaal + in browser
- Conventie: in een aparte map
 - index.html
 - \js\ or \scripts
 - \css, etc
- Referentie naar phonegap.js/cordova.js hoeft niet.
- Maak zip-bestand

User Interface

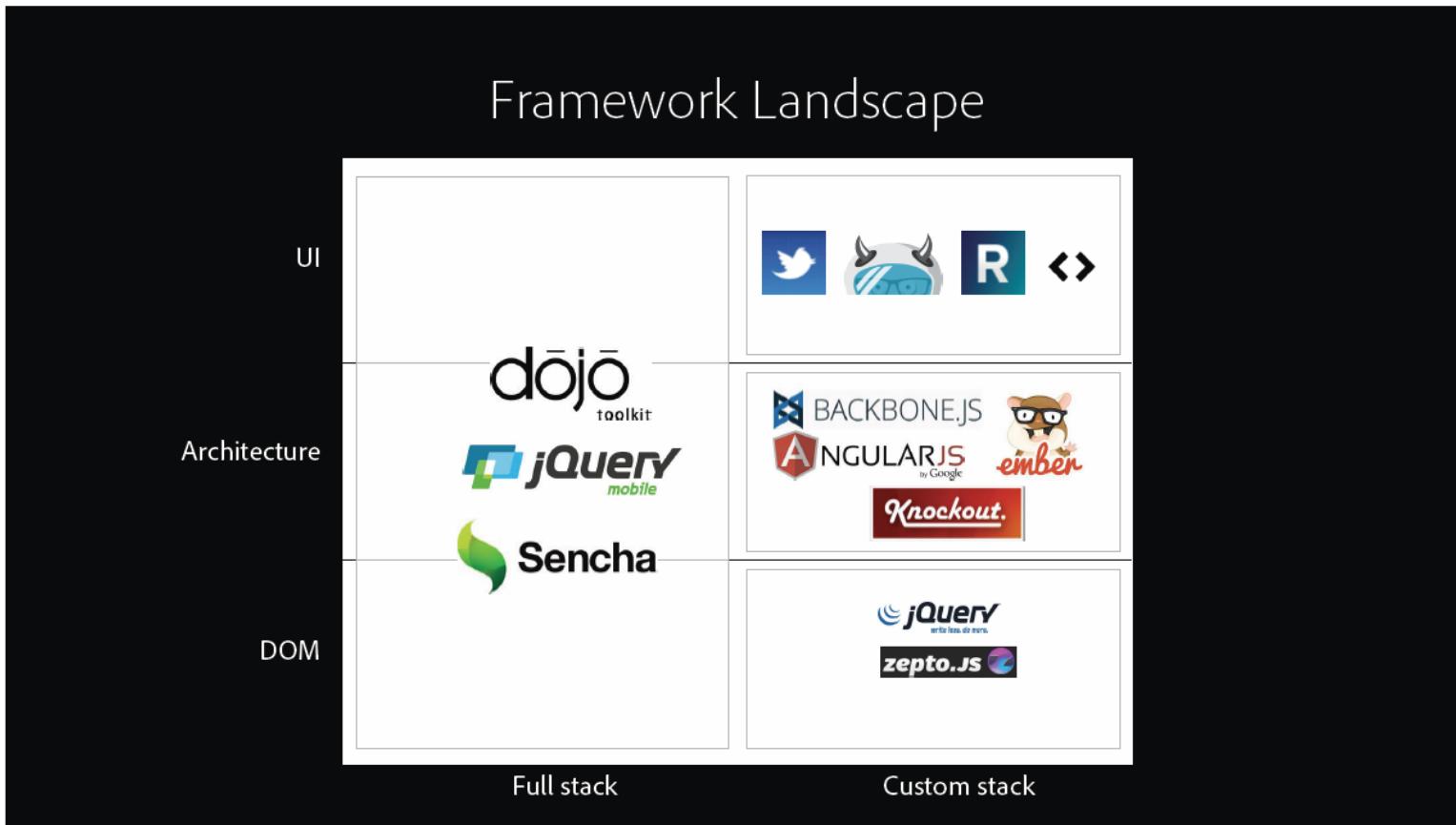


Framework 7

Niet verplicht! Je kunt ook andere frameworks gebruiken.

Of zelf HTML/CSS/JavaScript schrijven.

Andere UI-frameworks



Bron: <http://coenraets.org/blog/>

Uploaden naar Build

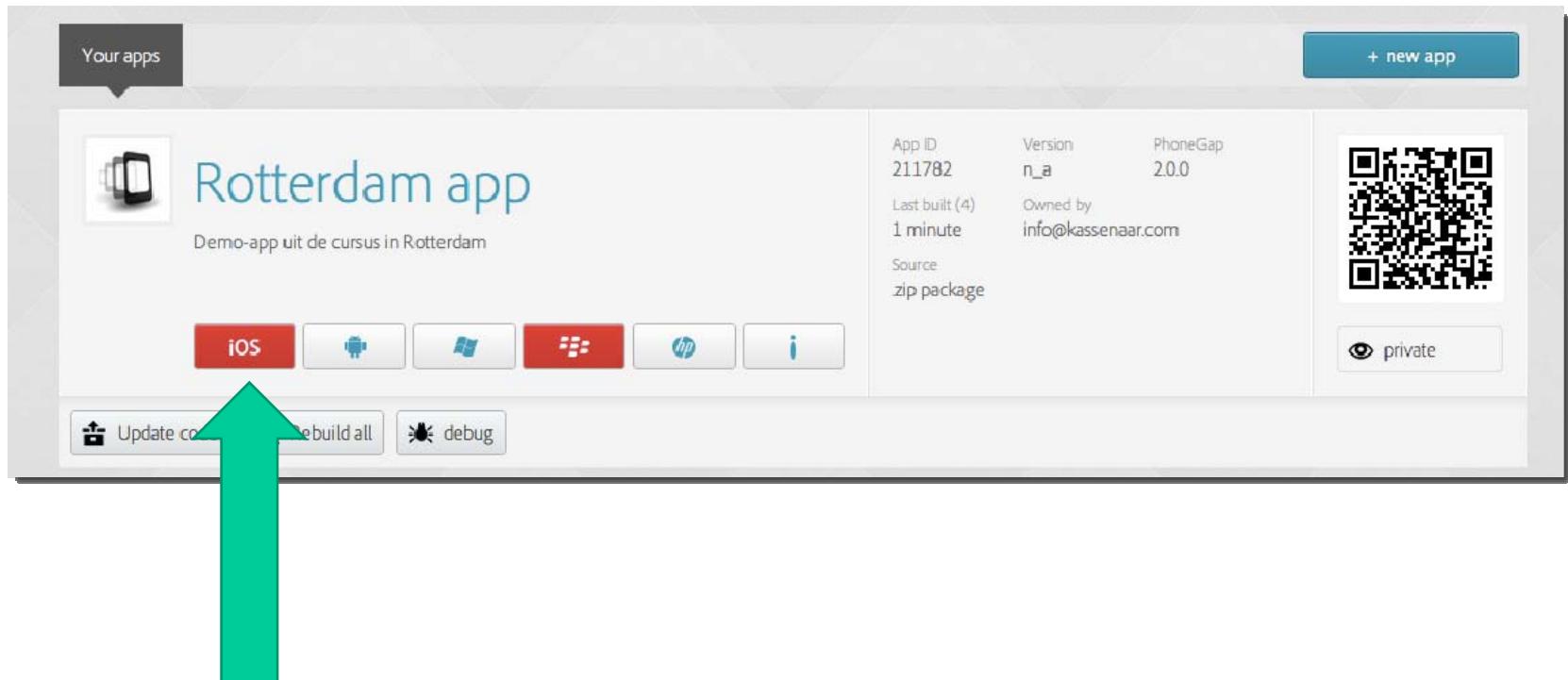


This screenshot shows the details page for the 'Rotterdam app'. The app icon features two smartphones. The title is 'Rotterdam app' and the subtitle is 'Demo-app uit de cursus in Rotterdam'. To the right, there's a summary table:

App ID 211782	Version n_a	PhoneGap 2.0.0
Last built 1 minute	Owned by info@kassenaar.com	
Source zip package	Tip Make your life easier by including configxml in your project more info	

At the bottom, there are checkboxes for 'enable debugging' (checked) and 'enable hydration' (unchecked), and a prominent blue button labeled 'Ready to build' with a red arrow pointing to it.

Voor IOS – signing & certificates



Developer certificate/key opgeven

App ID: 211782 Version: n_a PhoneGap: 2.0.0 Last built (4): 1 minute Owned by: info@kassenaar.com Source: zip package

iOS No key selected Rebuild error

Windows No key selected Rebuild xap

Android No key selected Rebuild ipk

TITLE: mobileTest

CERTIFICATE (P12) FILE: Bestand kiezen iPhonePeter...ficaat.p12

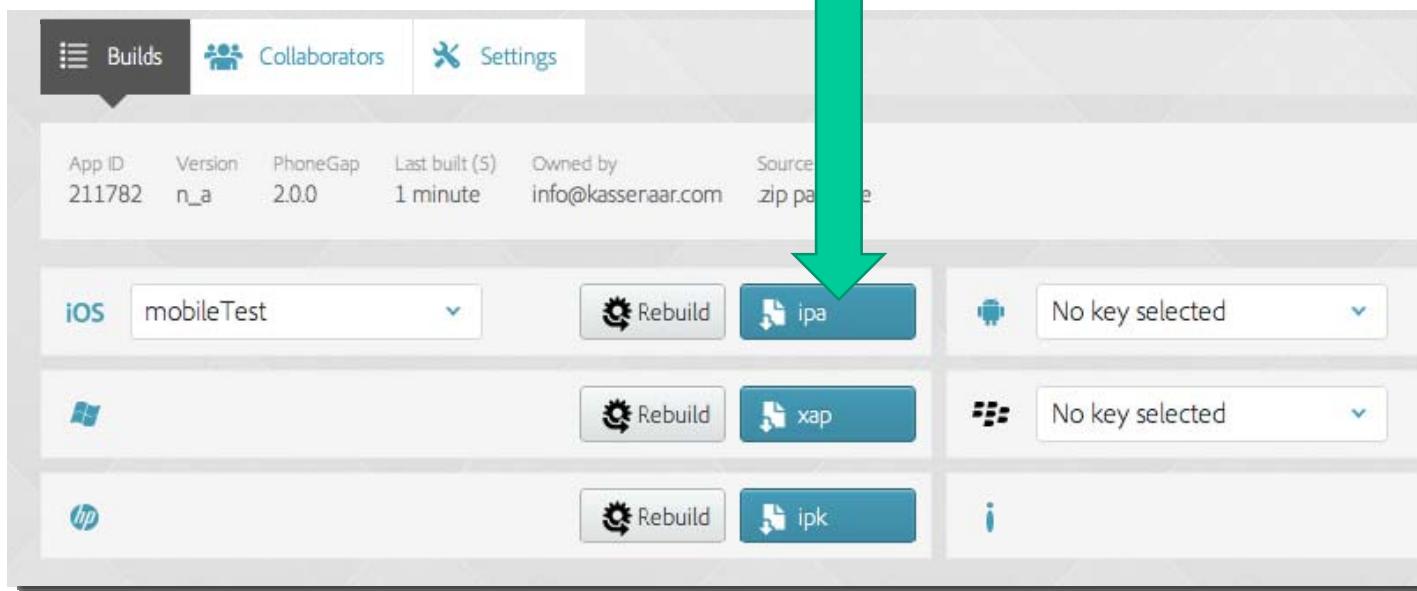
PROVISIONING PROFILE: Bestand kiezen mobileTest...eprovision

CERTIFICATE PASSWORD:

Powered by Adobe® PhoneGap™ Find out more

Navigation: Apps Docs Blog Help Account Sign out

cancel submit key



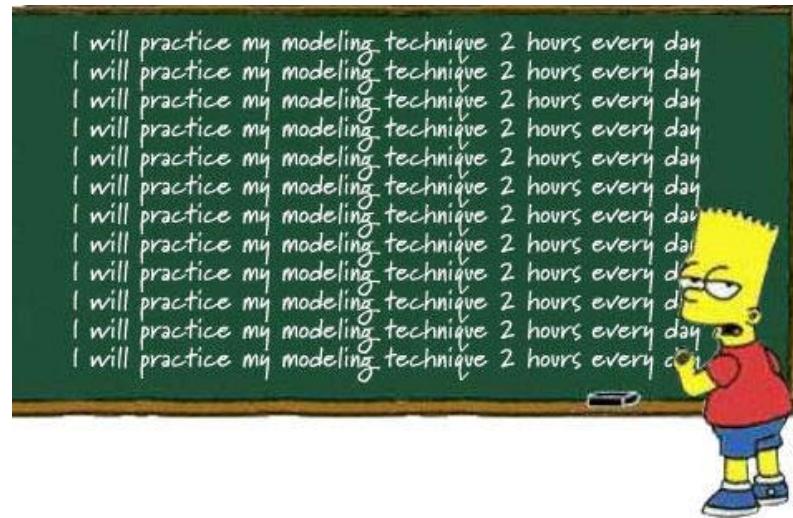
Vervolg:

1. Download de apps voor de verschillende platforms
2. Installatieprocedure per platform volgen
 - Android: sync via USB
 - iPhone: sync via iTunes
 - Windows Phone: sync via Store of via USB



Oefening

- Bereid een app voor
- Maak account bij PhoneGap Build
- Upload je app en build
- Download en installeer



Bd Apps Plugins **Docs** Blog FAQ Support

Your application has updated and a build has been queued



PG Build App
no description

 Adobe PhoneGap

Products Get Started **Docs** App Showcase Blog

English ▾

Docs Home

GETTING STARTED

TUTORIALS

REFERENCES

PHONEGAP BUILD

OVERVIEW

GETTING STARTED

CONFIGURING

SIGNING OVERVIEW

TOOLS

DEVELOPER API

SUPPORT

FAQ

PhoneGap Build

PhoneGap Build is a cloud service for compiling PhoneGap applications. These docs will get you started, but if your question isn't answered here you can always check out the [community forum](#).

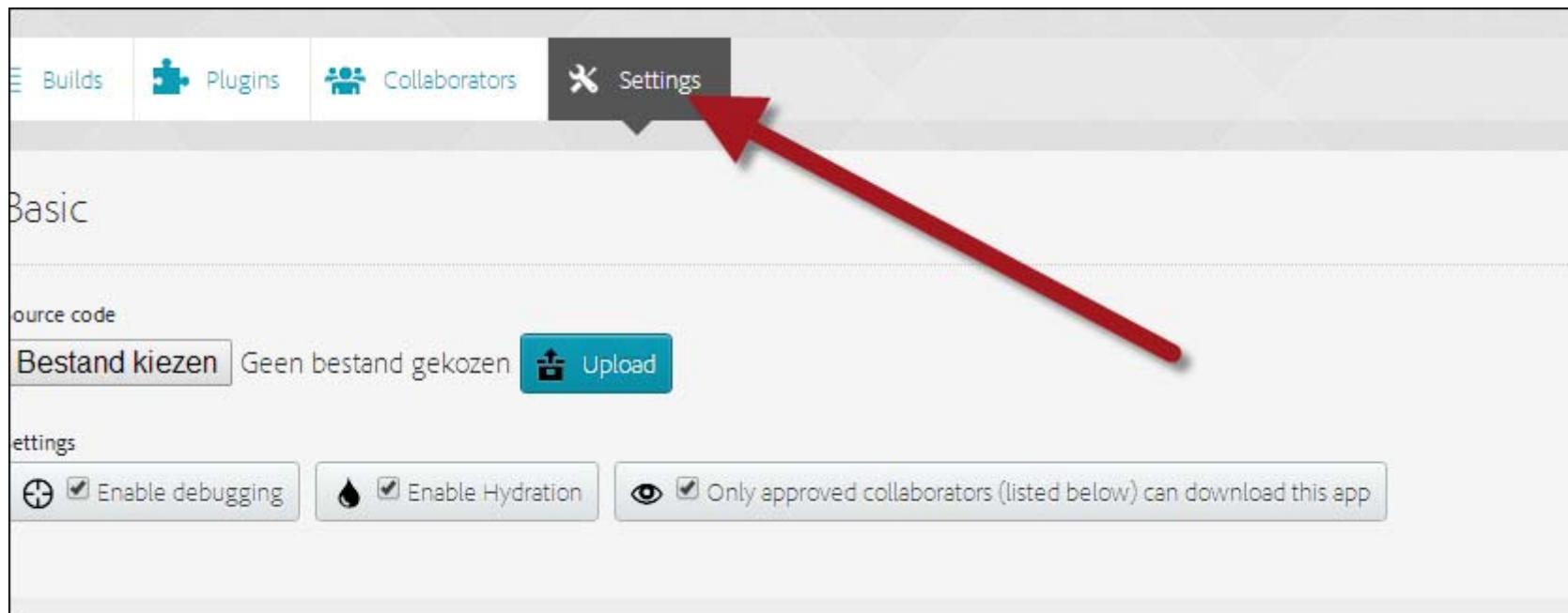
Overview	Getting Started
Configuring	Tools
Signing	Developer API
Support	FAQ

Edit this page on GitHub

Apps configureren in PhoneGap Build

Beperkt:

- gebruik de *Settings* tab op PhoneGap Build
 - Versie, icon, hydration



Config.xml

- Uitgebreider – maak een eigen config.xml
 - Plaats in de root van je site, naast index.html
- Platform, icon, splash screen, plug-ins, etc.

Example Config.xml

```
<?xml version="1.0" encoding="UTF-8" ?>
<widget xmlns   = "http://www.w3.org/ns/widgets"
      xmlns:gap  = "http://phonegap.com/ns/1.0"
      id        = "com.phonegap.example"
      versionCode = "10"
      version     = "1.0.0" >

    <!-- versionCode is optional and Android only --&gt;

    &lt;name&gt;PhoneGap Example&lt;/name&gt;

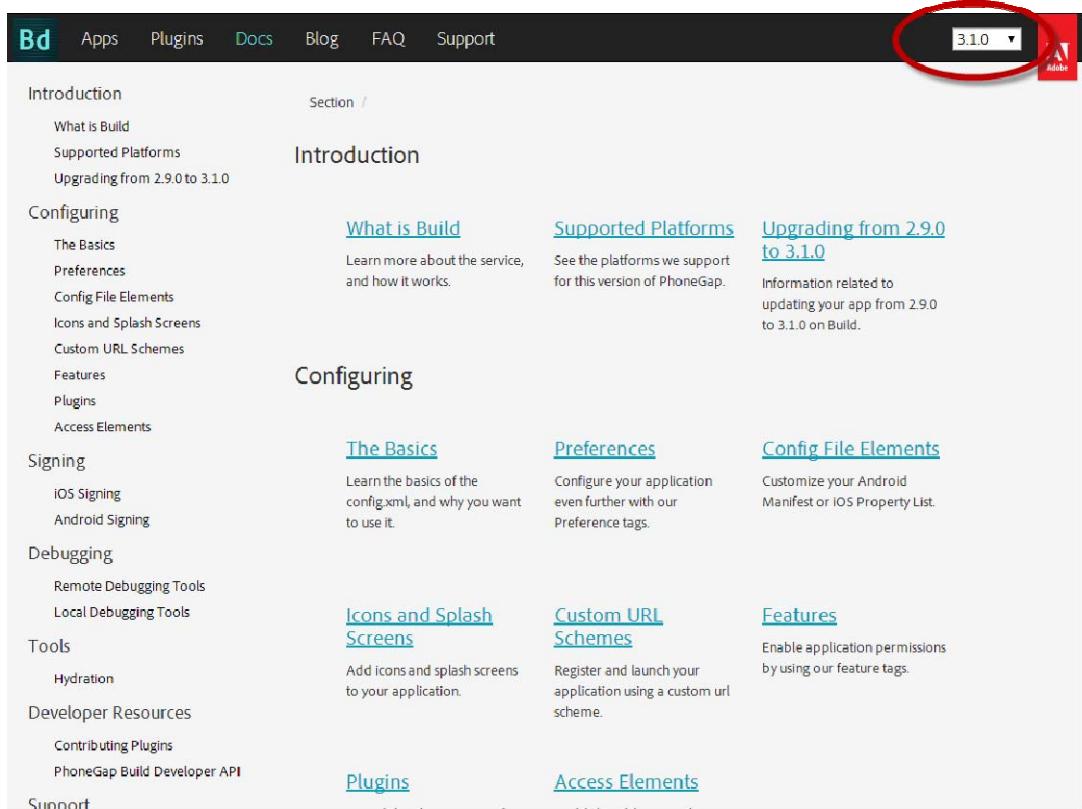
    &lt;description&gt;
        An example for phonegap build docs.
    &lt;/description&gt;

    &lt;author href="https://build.phonegap.com" email="support@phonegap.com"&gt;
        Hardeep Shoker
    &lt;/author&gt;

&lt;/widget&gt;</pre>
```

Config.xml

- Zie *altijd* de online documentatie voor laatste stand van zaken
- Let op versienummer



The screenshot shows the PhoneGap Build documentation website. At the top, there is a navigation bar with links for Apps, Plugins, Docs (which is highlighted in blue), Blog, FAQ, and Support. To the right of the navigation bar is a dropdown menu labeled "3.1.0" with a red circle around it. Below the navigation bar, the page title is "Introduction". On the left side, there is a sidebar with several sections: "Introduction", "Configuring", "Signing", "Debugging", "Tools", "Developer Resources", and "Support". Under "Introduction", there are links for "What is Build", "Supported Platforms", and "Upgrading from 2.9.0 to 3.1.0". Under "Configuring", there are links for "The Basics", "Preferences", "Config File Elements", "Icons and Splash Screens", "Custom URL Schemes", "Features", "Plugins", and "Access Elements". Under "Signing", there are links for "iOS Signing" and "Android Signing". Under "Debugging", there are links for "Remote Debugging Tools" and "Local Debugging Tools". Under "Tools", there is a link for "Hydration". Under "Developer Resources", there are links for "Contributing Plugins" and "PhoneGap Build Developer API". Under "Support", there is a link for "Plugins". The main content area has a heading "Introduction" and three columns of links: "What is Build", "Supported Platforms", and "Upgrading from 2.9.0 to 3.1.0". Below these, there are sections for "Configuring" (with links for "The Basics", "Preferences", and "Config File Elements"), "Signing" (with links for "iOS Signing" and "Android Signing"), "Debugging" (with links for "Remote Debugging Tools" and "Local Debugging Tools"), "Tools" (with a link for "Hydration"), "Developer Resources" (with links for "Contributing Plugins" and "PhoneGap Build Developer API"), and "Support" (with a link for "Plugins").

Hydration

- Developertool
- Bij updaten van code geen volledige nieuwe build, maar alleen vervangen van .html, .css, scripts enzovoort.

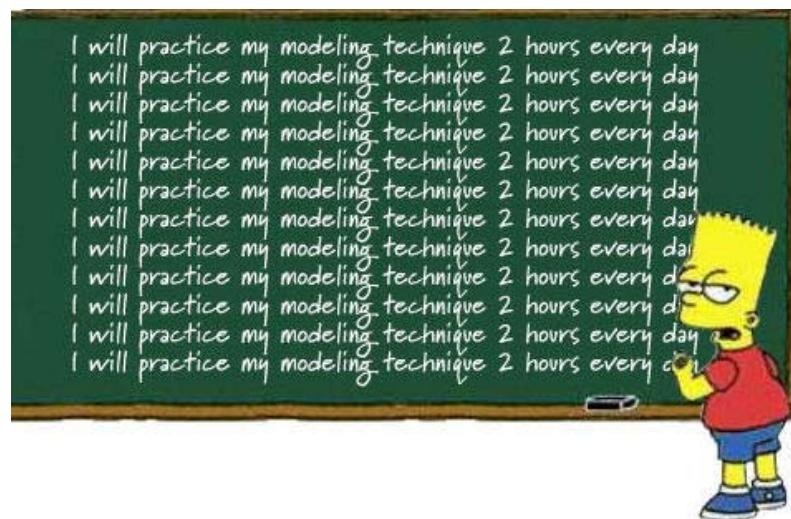


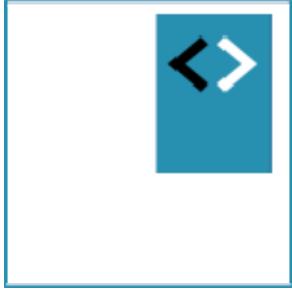
Hydration

- Bij opstarten van de app op device wordt online gecheckt of nieuwe versie beschikbaar is.
- Uitschakelen in productie!

Oefening

- Bereid een app voor
- Maak account bij PhoneGap Build
- Upload je app en build
- Download en installeer
- Pas settings aan:
 - Platforms
 - Oriëntatie
 - Versienummer
 - Icons/splash screen
 - ...



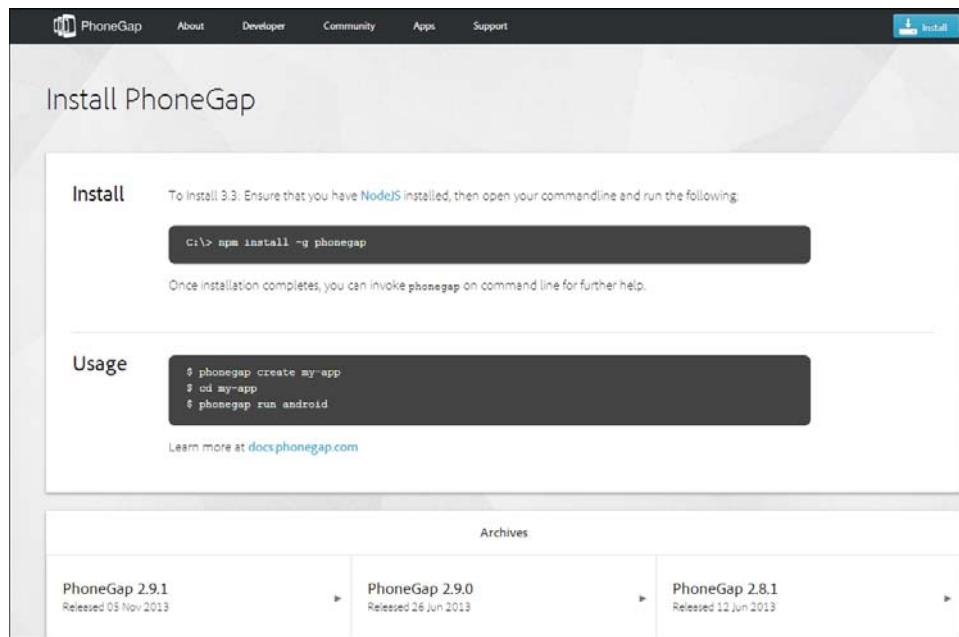


Alles zelf doen. Meer werk; meer vrijheid

Eigen installatie

PhoneGap zelf installeren

- Meer gedoe! (maar: flexibeler)
- Lees de Getting Started Guides per platform
- 2.x+: download,
installeer
per platform.



The screenshot shows a web browser window displaying the Apache Cordova website at <https://cordova.apache.org>. The page has a dark background. At the top left is the Apache Cordova logo, which is a white icon of a house-like shape with a plug. To its right is the text "CORDOVA™". The top navigation bar includes links for "Documentation", "Plugins", "Blog", "Contribute", and "Get Started", along with a search bar containing "Search '8.x' docs...". Below the navigation is a large central image featuring the Apache Cordova logo on the left and the text "APACHE CORDOVA™" in large white letters, with "Mobile apps with HTML, CSS & JS" and "Target multiple platforms with one code base" below it. It also mentions "Free and open source" and icons for Android, iOS, and Windows. Two blue buttons at the bottom are labeled "GET STARTED" and "DOCUMENTATION". At the bottom of the page, there are three sections: "Reusable code across platforms" with a clipboard icon, "Support for offline scenarios" with a Wi-Fi icon, and "Access native device APIs" with a camera icon.

Apache CORDOVA™

Documentation Plugins Blog Contribute Get Started Search '8.x' docs...

APACHE CORDOVA™

Mobile apps with HTML, CSS & JS

Target multiple platforms with **one code base**

Free and **open source**

GET STARTED DOCUMENTATION

Reusable code across platforms

Support for offline scenarios

Access native device APIs

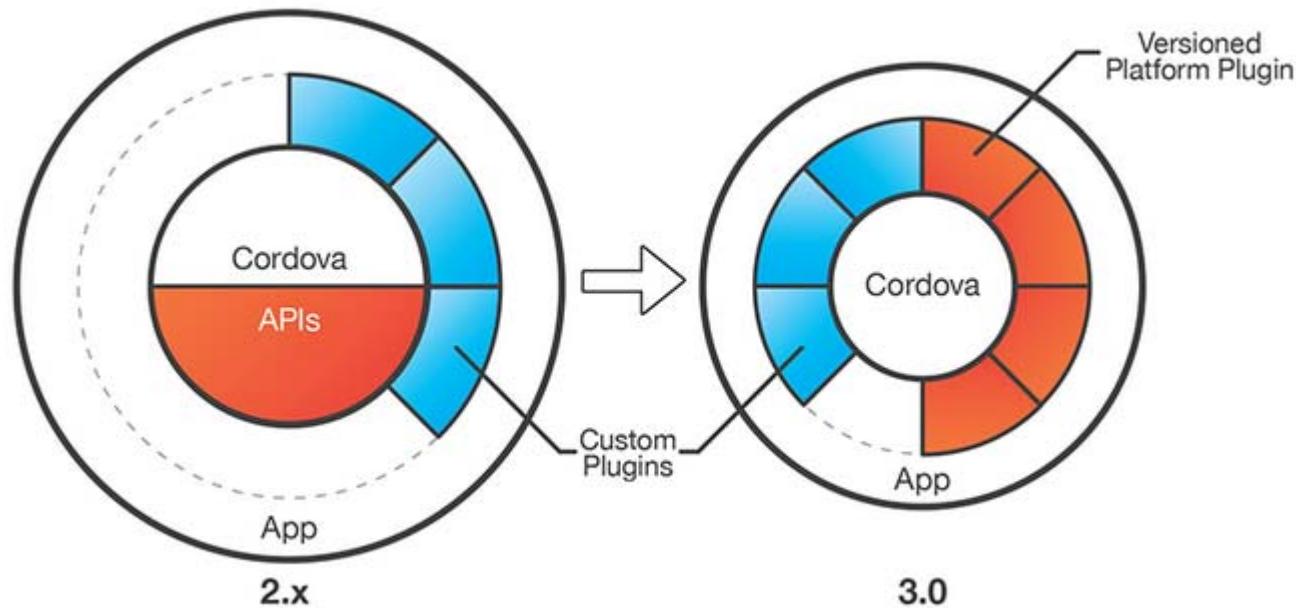
<http://cordova.apache.org/>

Verschillen PhoneGap 2.x / 3.x

- Vroeger: PhoneGap 2.x
 - Eén uitgebreide core. Alle API's by default beschikbaar
 - create.js/batch-bestanden om nieuw project te maken.
- Nu: PhoneGap 3+
 - Slimmed down core. Benodigde API's apart installeren.
 - Command Line Interface (CLI) om projecten te maken.
 - Installatie via node.js

PhoneGap 3.x +

<http://phonegap.com/blog/2013/07/19/adobe-phonegap-3.0-released/>



[http://www.raymondcamden.com/index.cfm/2013/7/19/PhoneGap-30-Released--
Things-You-Should-Know](http://www.raymondcamden.com/index.cfm/2013/7/19/PhoneGap-30-Released--Things-You-Should-Know)

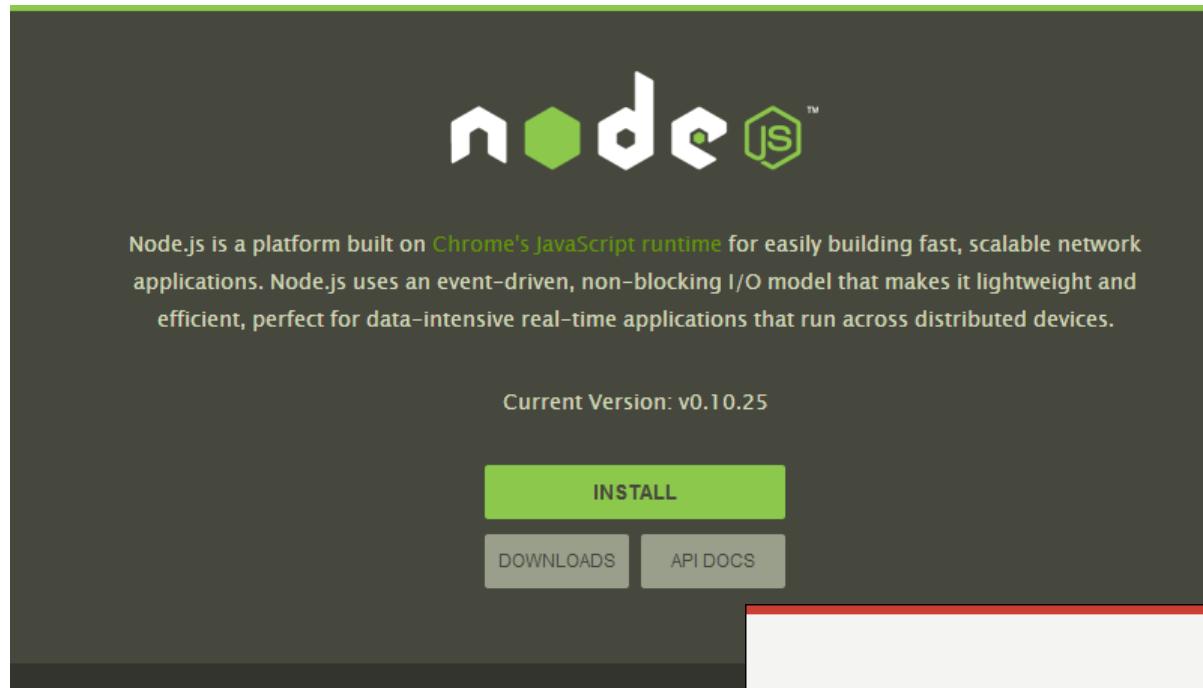
Beide: Java configuratie in Windows

- Java Downloaden en installeren (JDK/SDK!)
- Environment variable : JAVA_HOME
- Path aanpassen
 - C:\Program Files\Java_xxx\bin
- Apache Ant Downloaden en uitpakken
 - Environment variabele toevoegen: ANT_HOME
 - Path aanpassen: c:\Program Files\Apache Ant...\bin
- Path uitbreiden met .\eclipse\sdk\platform-tools
- ...

De rol van node.js

"Node.js is a platform built on [Chrome's JavaScript runtime](#) for easily building fast, scalable network applications."

- Praktijk:
 - Webserver-achtige systemen, RTC-applicaties, websockets, (eenvoudige) blogs.
- En: NPM als Package Manager voor applicaties en distributie van packages:
 - Cordova/PhoneGap, jQuery, Express, Mongoose, overige libs



<http://nodejs.org/>

The screenshot shows the npm website. It features a large red "npm" logo at the top left. To its right is a search bar with the placeholder text "Search Packages". On the far left, there is a sidebar with a navigation menu under the heading "npm HOME". The menu items include "API", "BLOG", "NODE.JS", and "JOBS", each accompanied by a small icon. The main content area has a heading "Node Packaged Modules" and a sub-heading "Total Packages: 58 694". Below this, there are several calls to action: "Patches welcome!", "Any package can be installed by using `npm install`.", and "Add your programs to this index by using `npm publish`.". At the bottom, there are two sections: "Recently Updated" and "Most Depended Upon", each listing several packages with their names and dependency counts.

Recently Updated	Most Depended Upon
• 1m bf-cli	• 5044 underscore
• 5m tempsdfsdf	• 4122 async
• 11m ticons	• 3446 request
• 11m patsy	• 2431 optimist

<https://www.npmjs.org/>

Node.js in de praktijk

Vaak gebruik je node.js niet eens om zijn core functionality, maar puur als tool om libraries en frameworks te installeren via NPM.

```
C:\> npm install -g cordova
```

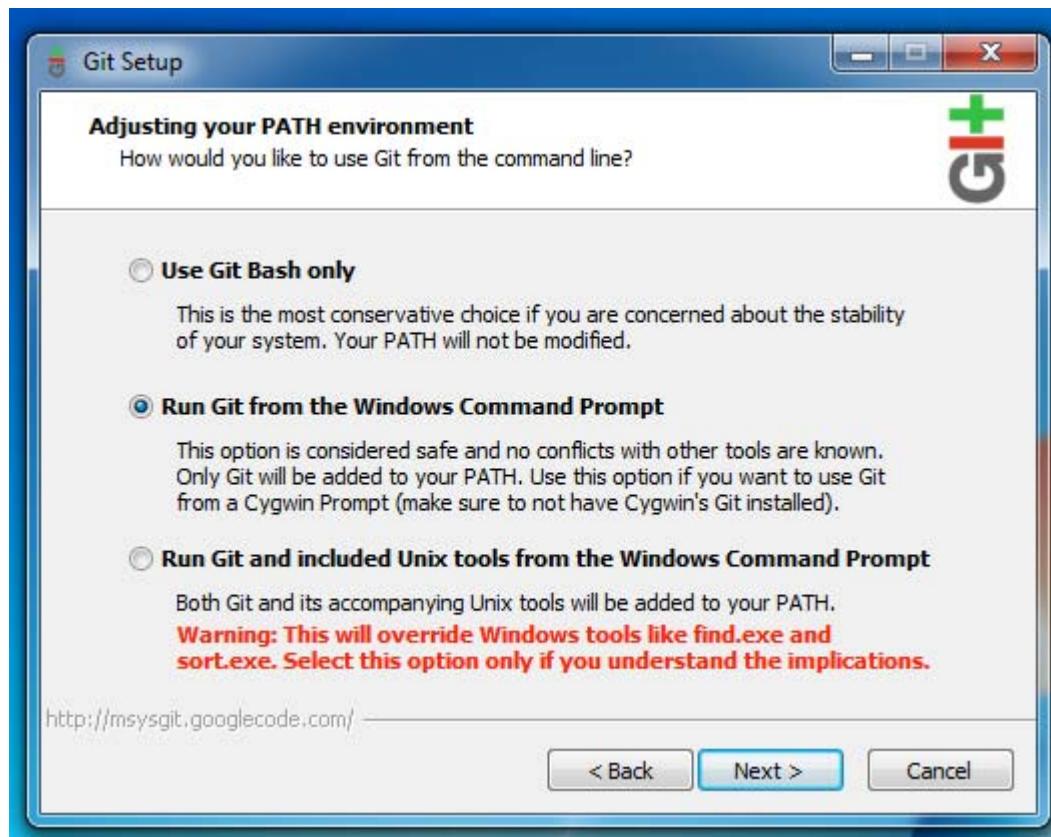


Lees/leer de command line switches op

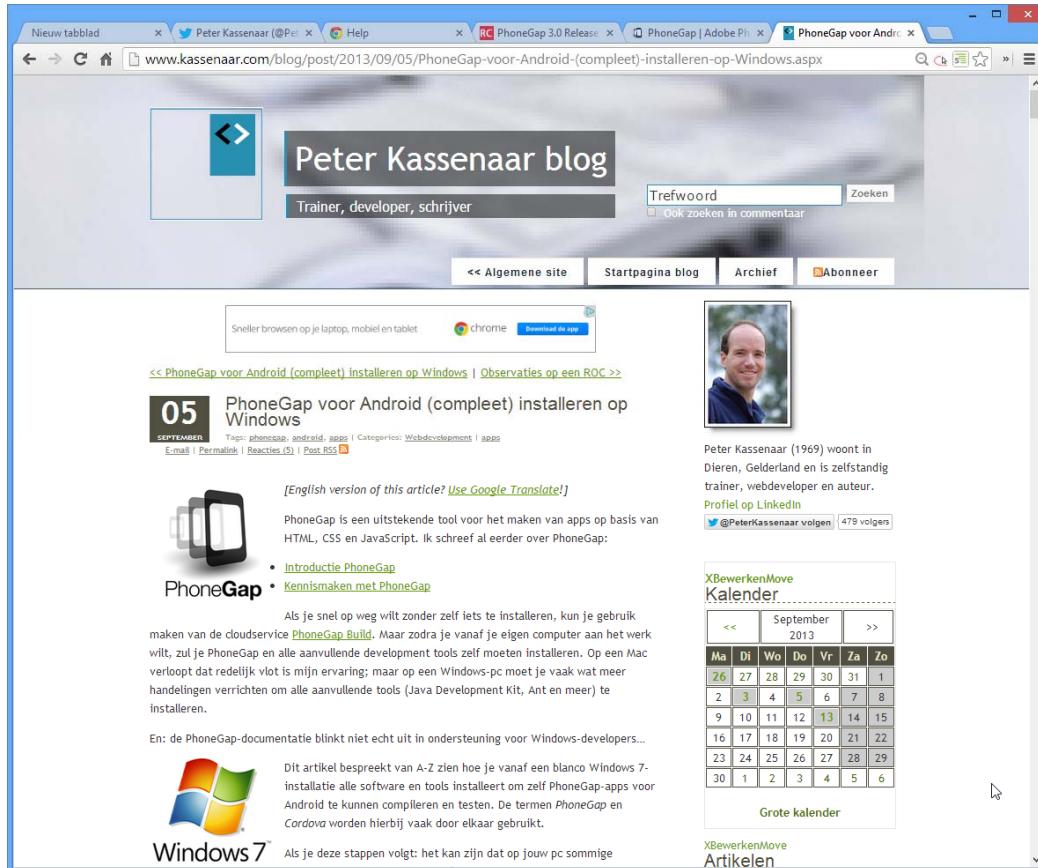
<https://www.npmjs.org/doc/cli/npm.html>

GIT installeren

- Bower gebruikt de GIT-tool om packages vanuit Github te downloaden en toe te voegen
- <http://git-scm.com/downloads>
- Kies bij installatie van GIT voor 'Run GIT from Windows Command Prompt'



Tip: Windows-installatieblog



[http://www.kassenaar.com/blog/post/2013/09/05/PhoneGap-voor-Android-\(compleet\)-installeren-op-Windows.aspx](http://www.kassenaar.com/blog/post/2013/09/05/PhoneGap-voor-Android-(compleet)-installeren-op-Windows.aspx)

Wijzigingen sinds blogpost

- Stap 4 - Niet complete Android Studio installeren
 - Scroll naar beneden en kies SDK Only
- Stap 8 - Nu: werken met de CLI
 - cordova build
 - cordova run
 - cordova emulate

Cordova CLI vs. PhoneGap CLI

- Syntaxis vrijwel aan elkaar gelijk

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

```
$ phonegap create hello com.example.hello "Hello World"
```

Belangrijkste verschil: phonegap CLI heeft opdrachten om PhoneGap Build aan te sturen. Cordova doet alles lokaal.

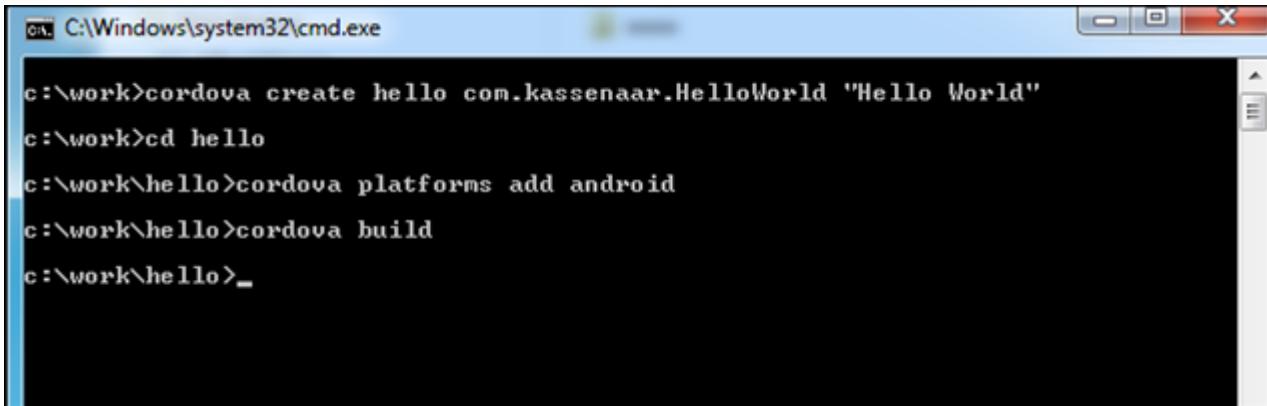
```
$ phonegap local build...
```

```
$ phonegap remote build...
```

<http://stackoverflow.com/questions/18174511/is-there-a-difference-between-phonegap-and-cordova-commands>

Voorbeeld: 3.x installatie Android

- Maak project via command line
- Build
- Open in Eclipse + Run in AVD
- Of: cordova run, voor starten op gekoppeld device



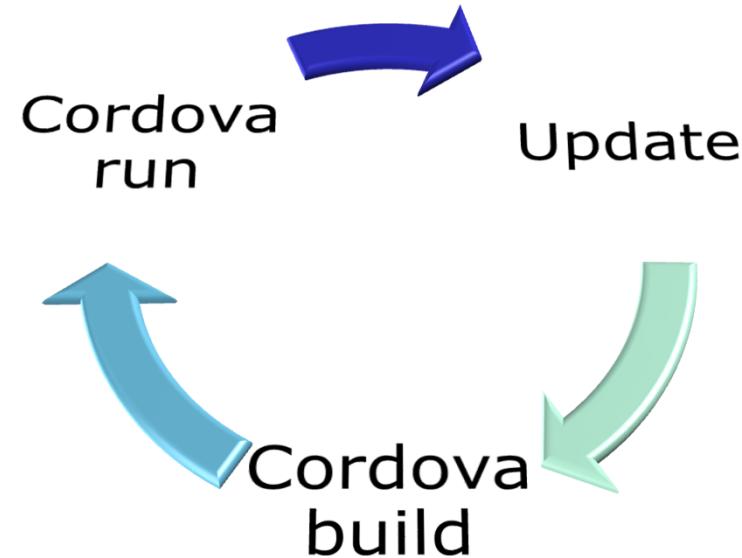
```
C:\Windows\system32\cmd.exe
c:\work>cordova create hello com.kassenaar.HelloWorld "Hello World"
c:\work>cd hello
c:\work\hello>cordova platforms add android
c:\work\hello>cordova build
c:\work\hello>
```



PhoneGap Demo From Scratch

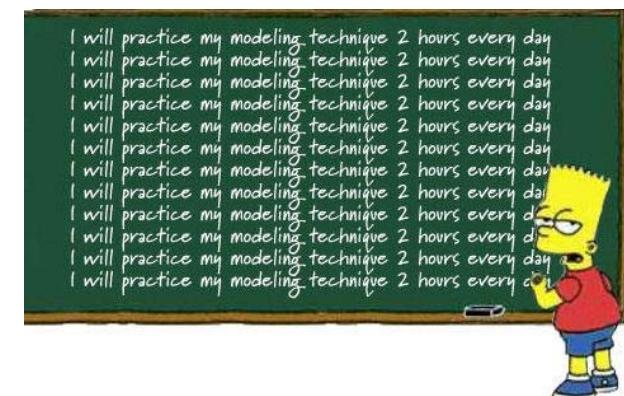
Testen - Cycle

- Wijzigingen aanbrengen in <project>/www
 - index.html
 - pages/<pagina.html>
- Opnieuw publiceren
 - cordova build
- Opnieuw draaien
 - cordova run



Oefeningen

- Lees installatie-blogpost op kassenaar.com.
 - Test of alle requirements aanwezig zijn
 - Bekijk de procedures voor node.js & PhoneGap-installatie
- Maak zelf eenvoudige Android PhoneGap-app, via CLI.
- Boek, pagina 95 en verder



Eigen app

Vervang de inhoud van de standaard map \www door je eigen app!

Ervaringen

- Er kan *ontzettend* veel mis gaan
 - Java
 - Versies van SDK
 - Android Studio, emulator?
 - Gradle
- Je bent vaak *uren* aan het downloaden
- Als je er een maand niet naar hebt gekeken, zijn er al weer tal van updates verschenen. Dit moet je weer downloaden...
- Er zijn veel onderlinge afhankelijkheden. Als je één onderdeel bijwerkt, kan het zijn dat een ander niet meer werkt.
 - Moet je die ook weer eerst updaten...

Meer documentatie -

The screenshot shows the Apache Cordova documentation website. The top navigation bar includes links for Documentation, Plugins, Blog, Contribute, Get Started, and a search bar. On the left, a sidebar titled 'CREATE APPS' lists steps for creating a first app, including 'Installing the Cordova CLI', 'Create the App', 'Add Platforms', 'Install pre-requisites for building', 'Build the App', 'Test the App', 'Add Plugins', 'Using merges to Customize Each Platform', 'Updating Cordova and Your Project', 'Templates for apps', and 'Platform support'. Below this, under 'Develop for platforms', are links for 'Android', 'iOS', 'Windows', 'OS X', and 'Manage versions and platforms'. The main content area features a large heading 'Create your first Cordova app' and a sub-section 'Installing the Cordova CLI'. It provides instructions for installing Node.js and the Cordova CLI using npm, and includes optional steps for git clients.

Create your first Cordova app

This guide shows you how to create a JS/HTML Cordova application and deploy them to various native mobile platforms using the `cordova` command-line interface (CLI). For detailed reference on Cordova command-line, review the [CLI reference](#)

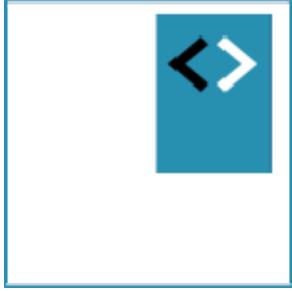
Installing the Cordova CLI

The Cordova command-line tool is distributed as an npm package.

To install the `cordova` command-line tool, follow these steps:

1. Download and install [Node.js](#). On installation you should be able to invoke `node` and `npm` on your command line.
2. (Optional) Download and install a [git client](#), if you don't already have one. Following installation, you should be able to invoke `git` on your command line. The CLI uses it to download assets when they are referenced using a url to a git repo.
3. Install the `cordova` module using `npm` utility of Nodejs. The `cordova` module will automatically be downloaded by the `npm` utility.
 - on OS X and Linux:

<https://cordova.apache.org/docs/en/latest/guide/cli/index.html>



Plug-ins toevoegen

Bestaande apps uitbreiden

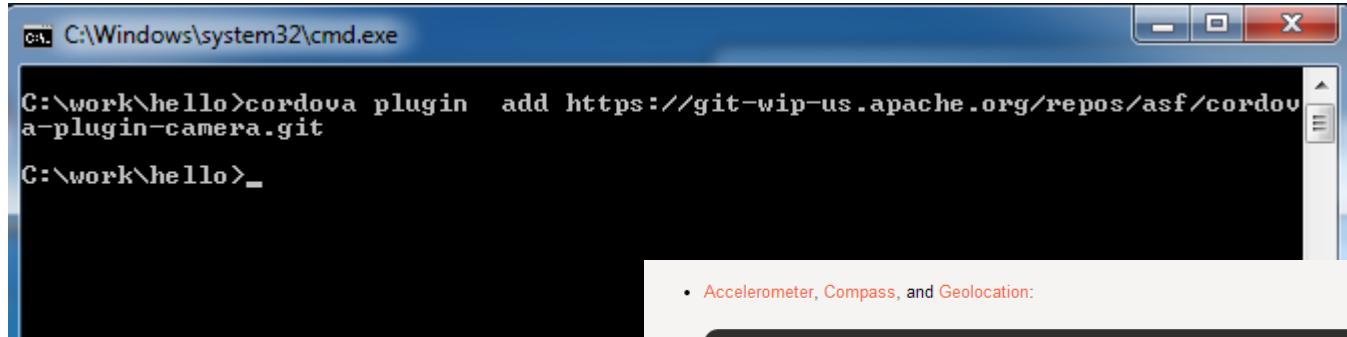
Plug-ins toevoegen

- Via command line en Git
- Installeer eventueel eerst Git
- Git
<http://git-scm.com/downloads>
- PhoneGap-documentatie
http://docs.phonegap.com/en/3.0.0/guide_cli_index.md.html

The phonegap local plugin add command requires you to specify the repository for the plugin code. Here are examples of features you might add:

- Basic device information ([Device API](#)):

```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-device.git
```



```
C:\Windows\system32\cmd.exe
C:\work\hello>cordova plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-camera.git
C:\work\hello>_
```

Plug-ins: copy/paste vanuit documentatie

- Accelerometer, Compass, and Geolocation:

```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-device-motion.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-device-orientation.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-geolocation.git
```

- Camera, Media playback and Capture:

```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-camera.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-media-capture.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-media.git
```

- Access files on device or network ([File API](#)):

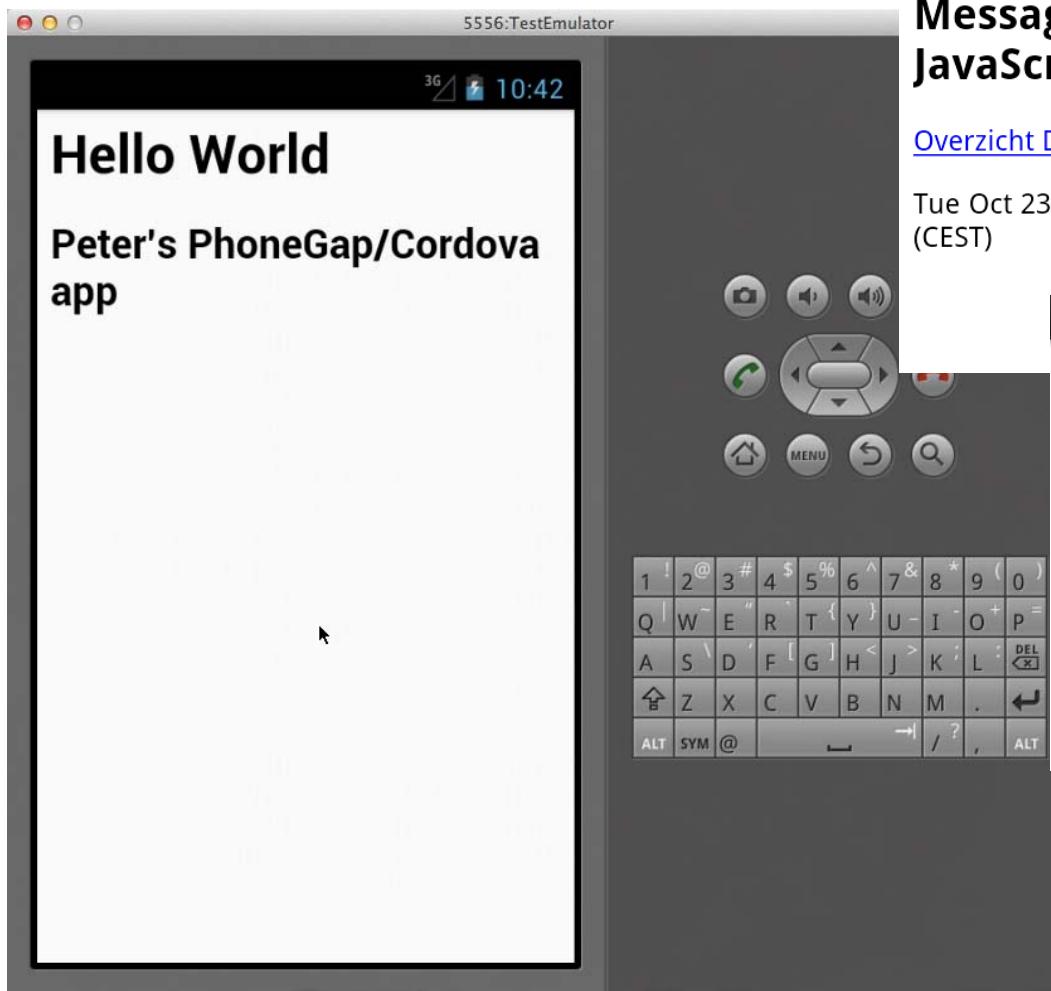
```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-file.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-file-transfer.git
```

- Notification via dialog box or vibration:

```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-dialogs.git
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-vibration.git
```

- Contacts:

```
$ phonegap local plugin add https://git-wip-us.apache.org/repos/asf/cordova-plugin-contacts.git
```



Hello World

Message vanuit
JavaScript!

[Overzicht Device info](#)

Tue Oct 23 2012 13:41:59 GMT+0200
(CEST)



Device Info

Device Name	GT-I9000
PhoneGap Version	2.1.0
Mobile Platform	Android
Platform Version	2.2.1
UUID	c0853a8538e9cb82

Icons en Splash Screen

- Splash screen geeft problemen bij local build.
- Oplossing: gebruik zowel `<preference>` en `<splash>` tag in config.xml

```
<!-- Icons -->
<icon src="res/icon.png"/>

<!-- Splash Screens -->
<preference name="SplashScreen" value="screen"/>
<splash src="res/splash.png"/>

</widget>
```

Daarna - App uitbouwen

- Gebruik standaard HTML, CSS en JavaScript
- Gebruik libraries als Twitter Bootstrap, jQuery Mobile, AngularJS, Topcoat.io of andere
- Sneller: testen in browser, dan pas compileren



Oefeningen

- Lees installatie-blogpost op kassenaar.com.
 - Test of alle requirements aanwezig zijn
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