Getting Started for Developers of eGovFramework Mobile Device API (for Android Platform)

Outline

This Guideline has been prepared for those who want to learn how to apply eGovFramework Mobile Device API Runtime Environment, Dev Kit and guidance program.

With this Guideline, all you need to follow is 3-Step instruction that will guide you through development of the hybrid application using eGovFramework API.

1. Dev Kit: Set the developmental environment ready to roll out
2. Project Execution: Create your own application using the sample project and execute your application via web-app.
3. Source Analysis: Learn how the source code is built to get a grasp on how eGovFramework web application and eGovFramework Mobile Device API are structured.

Refer to the following for system requirement for web-apps development under eGovFramework and mobile-apps development under eGovFramework Mobile Device API:

| Item	Description	Remark
OS	Windows 2000, Xp, Vista, 7	
JDK	Java SE SDK 7.0 or better	
SDK	Android SDK Revision 24 or better	
SDK-API	Android 5.0.1 or better	API 21 or better
Andorid Version	Android 2.2 Froyo or better	
IDE	Eclipse 4.3(Kepler)	Included in implementation tools
Cordova	4.3.0	Phonegap Device 3.7.1
Plug-In	Android ADT	

Step 1. Installations

Downloads

1. IDE : [Eclipse Classic Download](#)
2. Android SDK Manager : [Android SDK Manager Download](#)
3. ADT Plugin : [ADT Plugin Download](#)
4. Cordova (Phonegap) : [Cordova Download](#)

Installing Development Environment

1. Visit eGovFramework web portal(http://www.egovframe.go.kr/, http://www.egovframe.org/, http://www.egovframe.kr/), **Log-in**, access "Download>Dev Kit" and proceed with downloads.
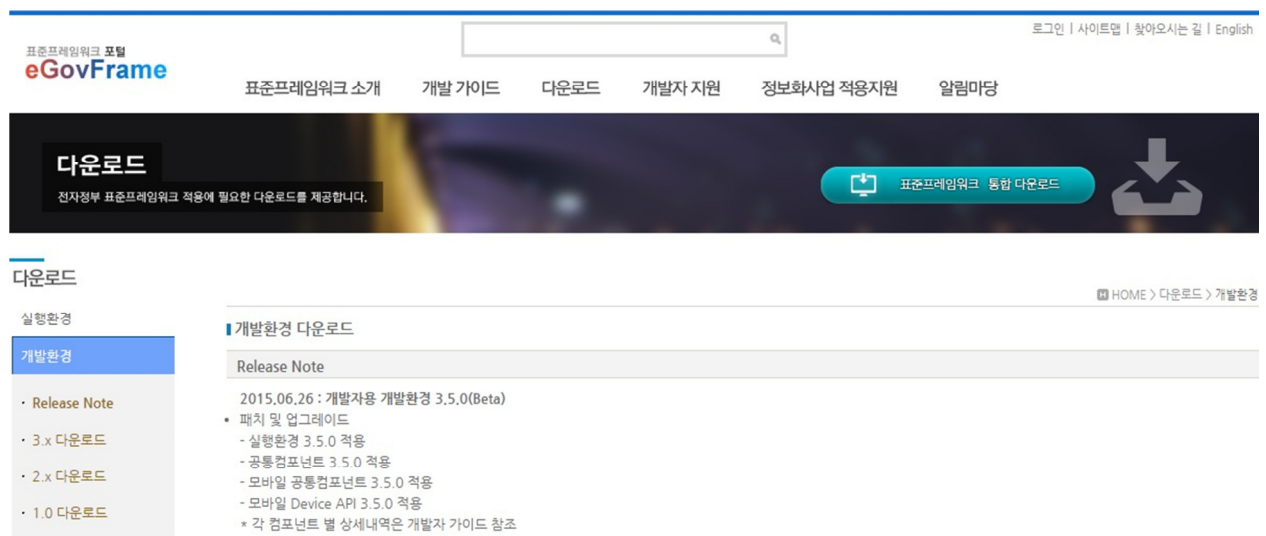
How to install SDK

You are advised to install SDK Manager prior to Android SDK.
Refer to the following link that will guide you through the installations:

Install

- [SDK Guide](#)
- [Quick Install   Guideline](#)

Remark

- SDK directory shall not contain any **Korean Character** or   **space**.

- While you're allowed to install API of any version, it is advised that eGovFramework Device API use Android 2.2 or better.

How to Install ADT

Android **D**evelopment **T**oolkit(hereinafter referred to as "ADT") is an Eclipse IDE plug-in that helps you develop Android applications. Refer to the following link that will guide you through the installations:

Install

- ADT Plugin
- Quick Install Guideline

How to install Android Configurator for M2E Plug-in

- Android Configurator for M2E Plug-in helps you link through ADT and M2Eclipse Maven plug-in.
- **You'll need to install plug-in when Maven update is complete.**
- How to install Android Configurator for M2E

How to install Cordova

eGovFramework Device API refers to Cordova(Phonegap) in the course of development. Refer to the following link that will guide you through the installations:
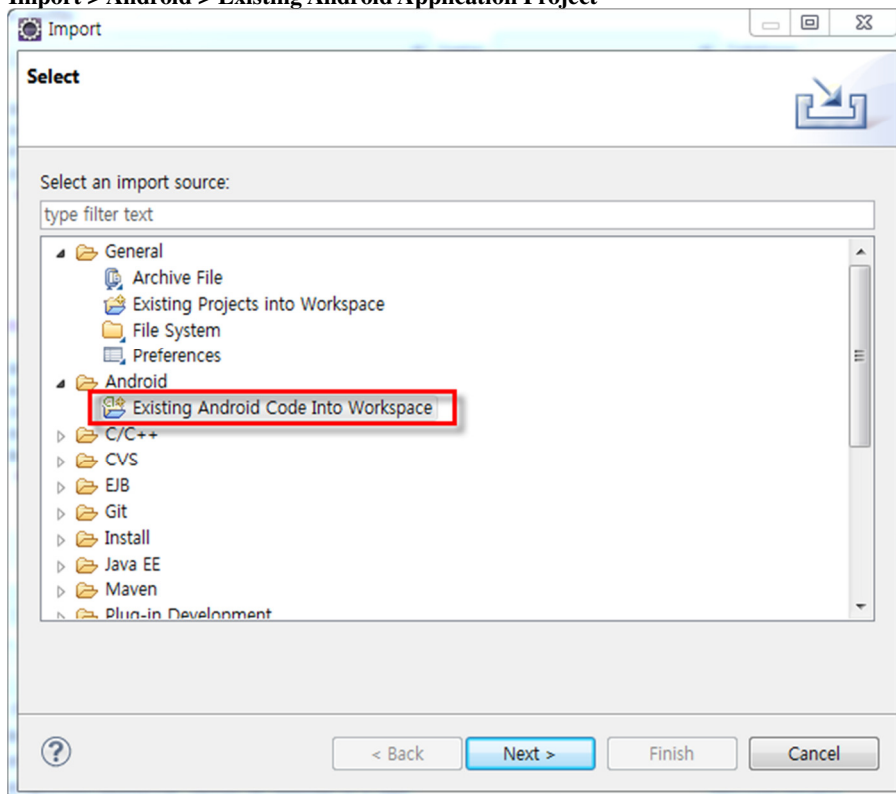
Install

- Cordova Getting Started
- Quick Install Guideline

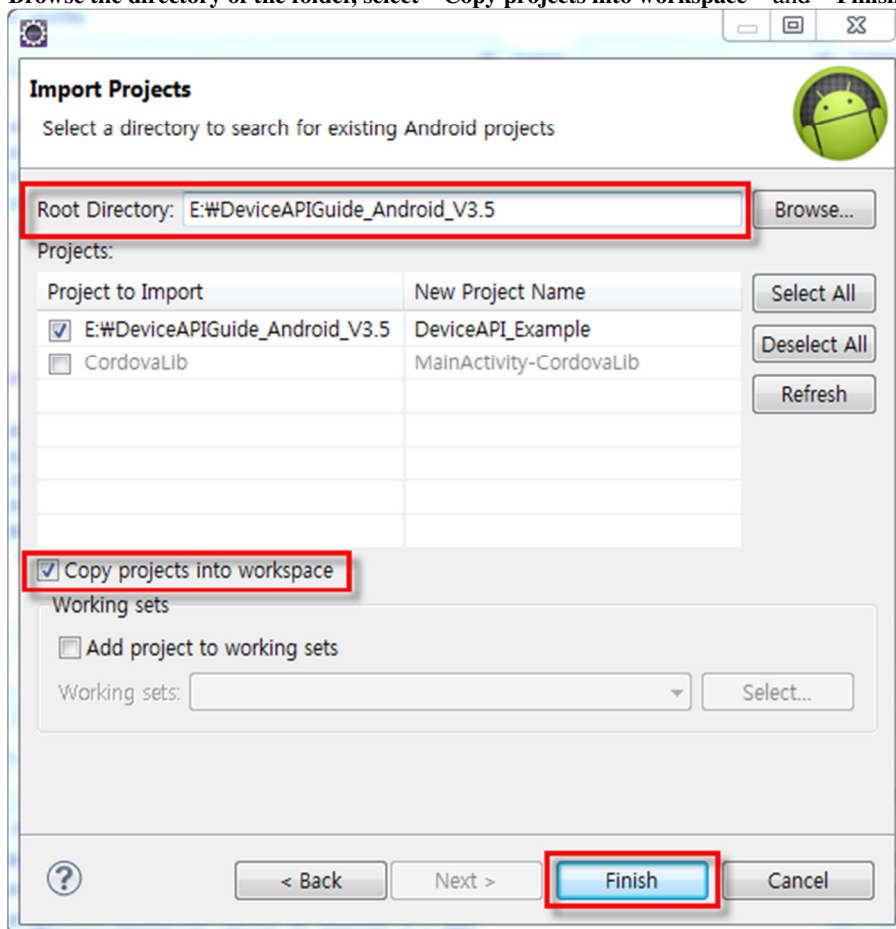How to install the runtime environment for eGovFramework Device API

DeviceAPIGuide_Android_V3.5.zip import

1. **Create a folder to extract the zip package .**
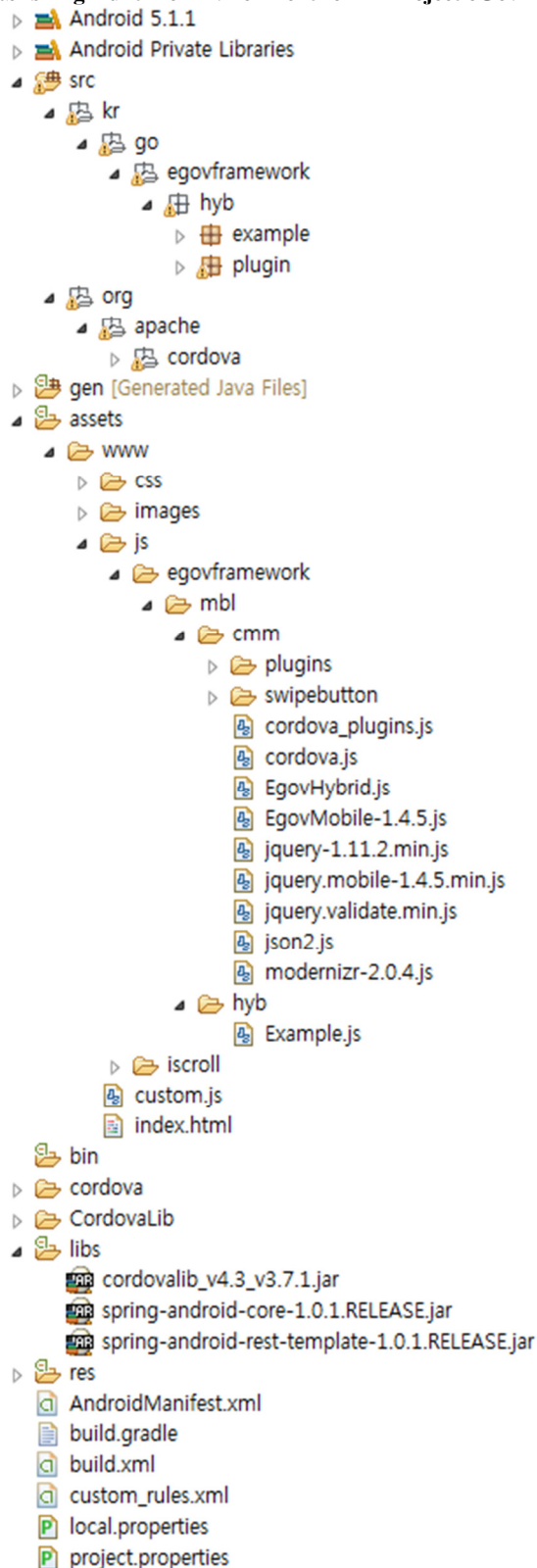
2. **Import > Android > Existing Android Application Project**

3. **Browse the directory of the folder, select   Copy projects into workspace   and   Finish.**

4. **Establishing Runtime Environment for In-Project eGovFramework Device API**

```
▷ ⬛ Android 5.1.1
▷ ⬛ Android Private Libraries
▲ 🎯 src
   ▲ 📁 kr
      ▲ 📁 go
         ▲ 📁 egovframework
            ▲ 🔲 hyb
               ▷ ⊞ example
               ▷ 🎯 plugin
   ▲ 📁 org
      ▲ 📁 apache
         ▷ 📁 cordova
▷ 🎯 gen [Generated Java Files]
▲ 📂 assets
   ▲ 📂 www
      ▷ 📂 css
      ▷ 📂 images
      ▲ 📂 js
         ▲ 📂 egovframework
            ▲ 📂 mbl
               ▲ 📂 cmm
                  ▷ 📂 plugins
                  ▷ 📂 swipebutton
                     📄 cordova_plugins.js
                     📄 cordova.js
                     📄 EgovHybrid.js
                     📄 EgovMobile-1.4.5.js
                     📄 jquery-1.11.2.min.js
                     📄 jquery.mobile-1.4.5.min.js
                     📄 jquery.validate.min.js
                     📄 json2.js
                     📄 modernizr-2.0.4.js
               ▲ 📂 hyb
                     📄 Example.js
            ▷ 📂 iscroll
         📄 custom.js
         📄 index.html
   📂 bin
▷ 📂 cordova
▷ 📂 CordovaLib
▲ 📂 libs
      📦 cordovalib_v4.3_v3.7.1.jar
      📦 spring-android-core-1.0.1.RELEASE.jar
      📦 spring-android-rest-template-1.0.1.RELEASE.jar
▷ 📂 res
   📄 AndroidManifest.xml
   📄 build.gradle
   📄 build.xml
   📄 custom_rules.xml
   📄 local.properties
   📄 project.properties
```

## How to establish Runtime Environment for the existing Project

1. **Copy the downloaded DeviceAPIGuide_Android_V3.5.zip to the desired directory.** (Using eGovFramework Center

2. **Extract   DeviceAPIGuide_Android_V3.5.zip   .**
3. **In assets / www, you can establish CSS for the runtime environment.**
4. **In assets / www, you can establish the images for the runtime environment.**
5. **In assets / www, you can establish JS for the runtime environment.**
6. **Copy cordovalib_4.3_v3.7.1.jar, spring-android-core-1.0.0.RELEASE.jar, spring-android-rest-template-1.0.0.RELEASE.jar to / libs.**
7. **Fix AndroidManifest.xml and   project.properties.**Configure Cordova (Phonegap).
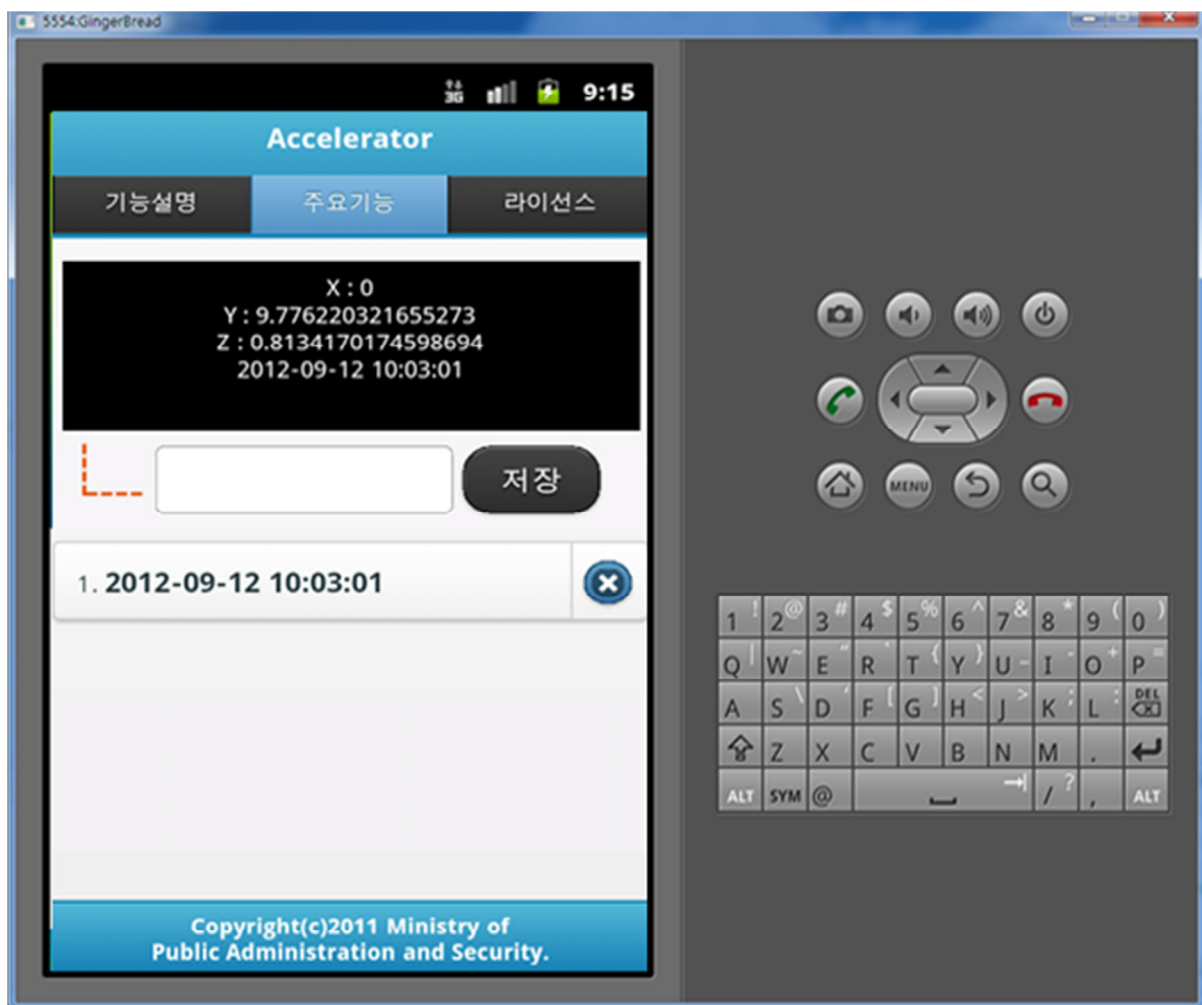
Step 2. Project Executions

Device Application

1. **Install Runtime Environment Example .**See how.
2. **Right-click the project and   choose > Run As > Android Application**
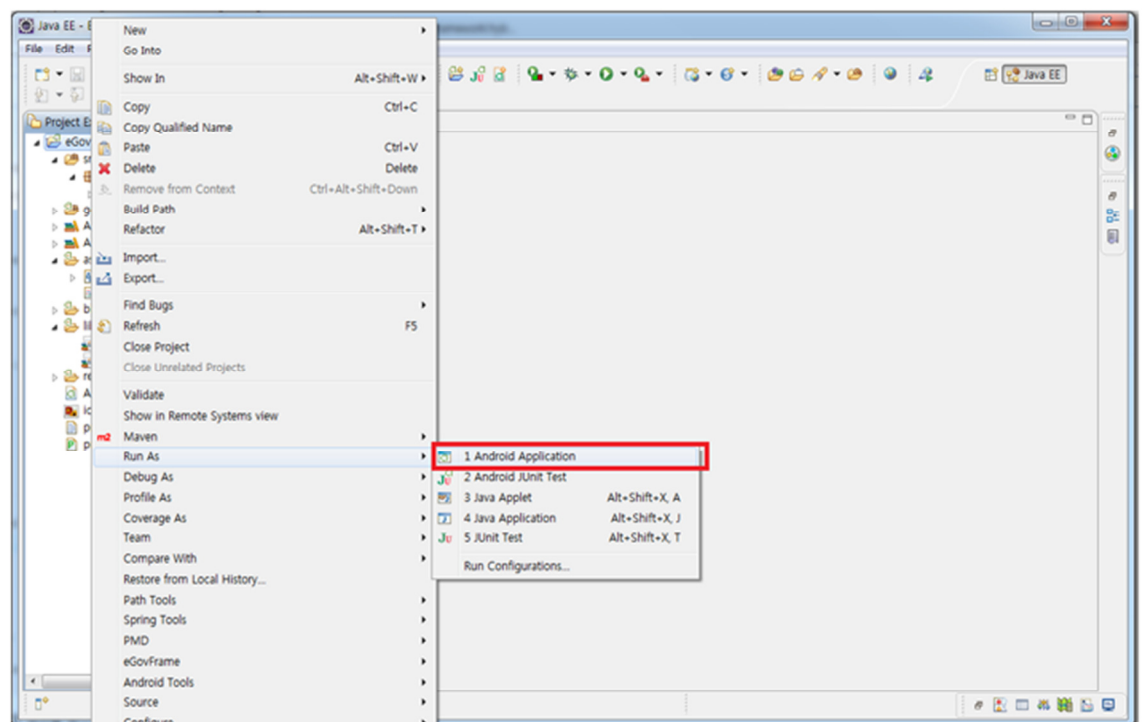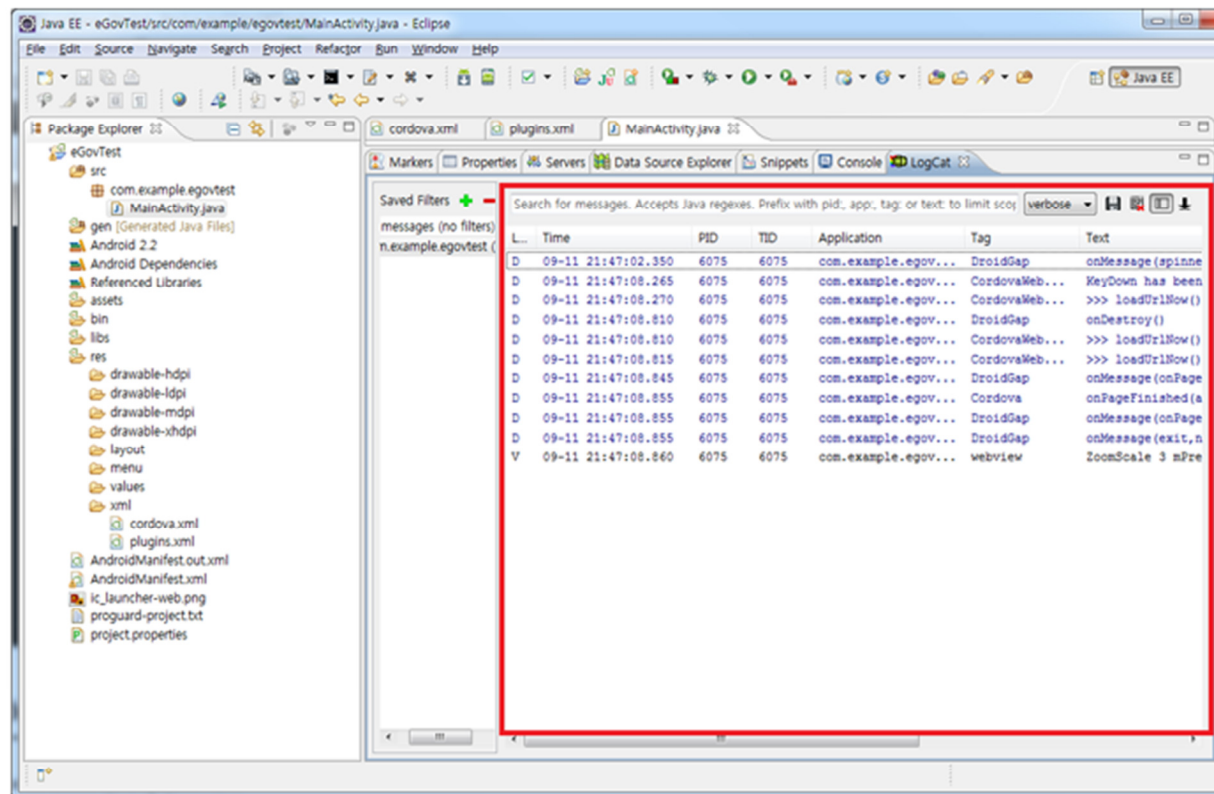
3. **Execute using Android Virtual Device Manager of ADT**

4. **Execute using USB Debugging of the device**

Accelerator

기능설명	주요기능	라이선스

```
X : -0.78998017311109619
Y : 3.9362804889678955
Z : 9.166494369506836
2012-09-03 14:21:15
```

[   ]   저장

1. 2012-09-03 14:21:15   ❌

2. 2012-08-07 11:01:46   ❌

3. 2012-08-07 11:01:45   ❌

4. 2012-08-07 11:01:43   ❌

5. 2012-08-07 10:13:38   ❌

5. **Check for App Application Debugging via LogCat**

Web Application

- See the following for general eGovFramework 3.5 Web Application information that your development of web application will be based.
- eGovFramework 3.5

Step 3. Source Analyses

Pages Notable

Structure

Directory	File	Remark
assets/www/css/egovframework/mbl/cmm/	EgoMobile-1.4.5.css	Common CSS for Mobile Runtime Environment
assets/www/css/egovframework/mbl/cmm/	jquery.mobile-1.4.5.css	Common CSS for Query Mobile
assets/www/css/egovframework/mbl/cmm/	theme-1.1.1.css	Themes
assets/www/css/egovframework/mbl/cmm/swipebutton/	jquery-mobile-custom.css	CSS related to Swipe Buttons
assets/www/js/egovframework/mbl/cmm/	cordova.js	JS for Cordova
assets/www/js/egovframework/mbl/cmm/	EgovHybrid.js	Common JS for Device API
assets/www/js/egovframework/mbl/cmm/	EgovMobile-1.4.5.js	Common JS for Mobile Runtime Environment
assets/www/js/egovframework/mbl/cmm/	jquery-1.11.2.min.js	JS for jQuery
assets/www/js/egovframework/mbl/cmm/	jquery.mobile-1.4.5.min.js	JS for jQuery Mobile
assets/www/js/egovframework/mbl/cmm/	jquery.validate.min.js	JS for Validation
assets/www/js/egovframework/mbl/cmm/	json2.js	JS for Json
assets/www/js/egovframework/mbl/cmm/	modernizr-2.0.4.js	Common JS for verification of Device API
assets/www/js/egovframework/mbl/cmm/swipebutton/	jquery-mobile-custom.js	JS for Swipe Buttons
libs/	cordova.jar	Classes and Wrapper Classes for Phonegap
res/xml/	plugin.xml	Configuration XML for Cordova Plugin

Composition

Type	Distribution	Download URL	Page Link
Downloads	zip	Link to Download	Link to Runtime Environment Guideline
Accelerator	zip	Link to Download	Link to Accelerator Guideline
Camera	zip	Link to Download	Link to Camera Guideline
Compass	zip	Link to Download	Link to Compass Guideline
Contacts	zip	Link to Download	Link to Contacts Guideline
Device	zip	Link to Download	Link to Device Guideline
FileReadWriter	zip	Link to Download	Link to FileReadWriter Guideline
GPS	zip	Link to Download	Link to GPS Guideline
Interface	zip	Link to Download	Link to Interface Guideline
Media	zip	Link to Download	Link to Media Guideline
Network	zip	Link to Download	Link to Network Guideline
PKIMagicXSign	zip	Link to Download	Link to PKIMagicXSign Guideline
PKIWizSign	zip	Link to Download	Link to PKIWizSign Guideline
PKIXecureSmart	zip	Link to Download	Link to PKIXecureSmart Guideline
Vibrator	zip	Link to Download	Link to Vibrator Guideline

Related Tools and Environments

- Implementation Tool for Device API
- Runtime Environment for Device API

Runtime Environment for eGovFramework Mobile