Developing Android Applications to Digitize Your Life!

Getting started

Seminar @ Saarland University, WS 2010/11
October 27, 2010

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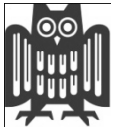

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Requirements

1. Installing the JDK
2. Installing the IDE/Eclipse
3. Installing the SDK / AVD
4. Configuration of the AVD
5. Launching the Emulator
6. Connecting your mobile phone
7. „Hello World“ !
8. Sensor Simulation

Step 1: Installing a JDK

- Do you have a JDK installed on your computer?

- Yes! You're ready to install Eclipse
- No? Install the JDK from

http://www.oracle.com/technetwork/java/javase/downloads/

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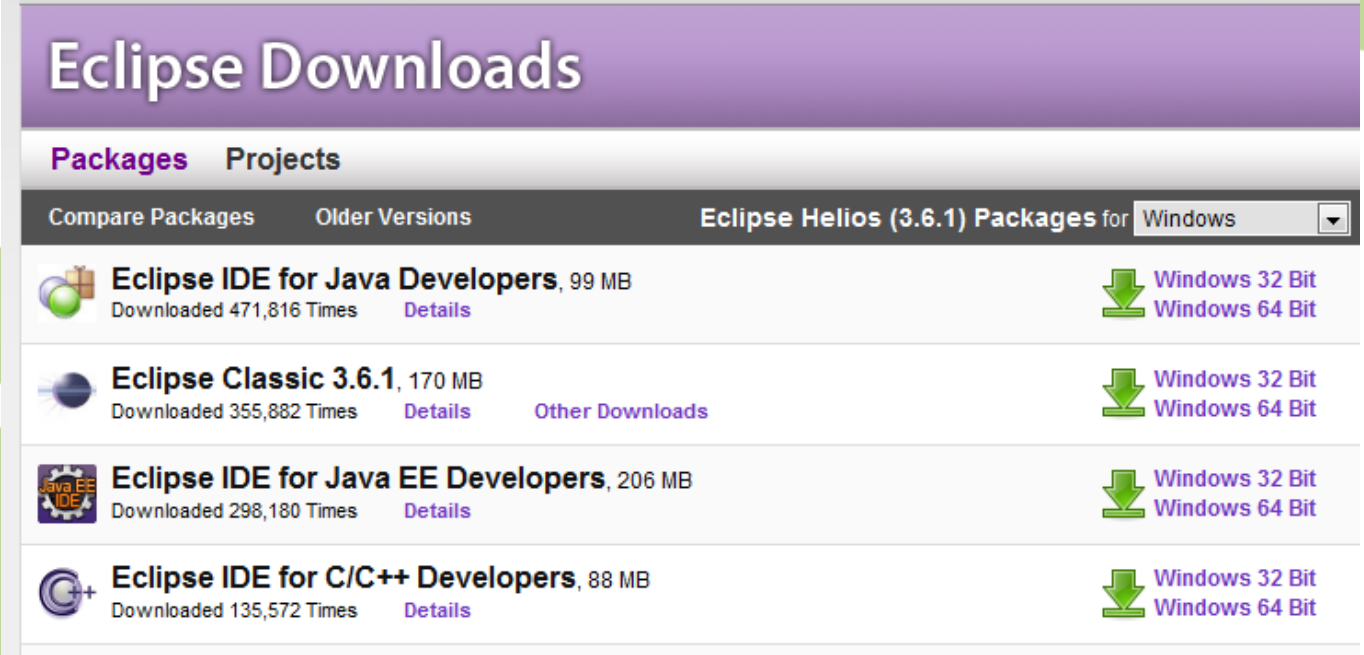
Step 2: Installing the IDE / Eclipse

- http://www.eclipse.org/
  Choose the latest Eclipse built
- Eclipse Classic 3.6.1
- or RCP Version will also fit



Step 3: Installing the SDK/ AVD

- Installing the SDK (Android SDK and AVD Manager)
- Three versions (Mac/Win/Linux)
- Download the latest SDK (r07)

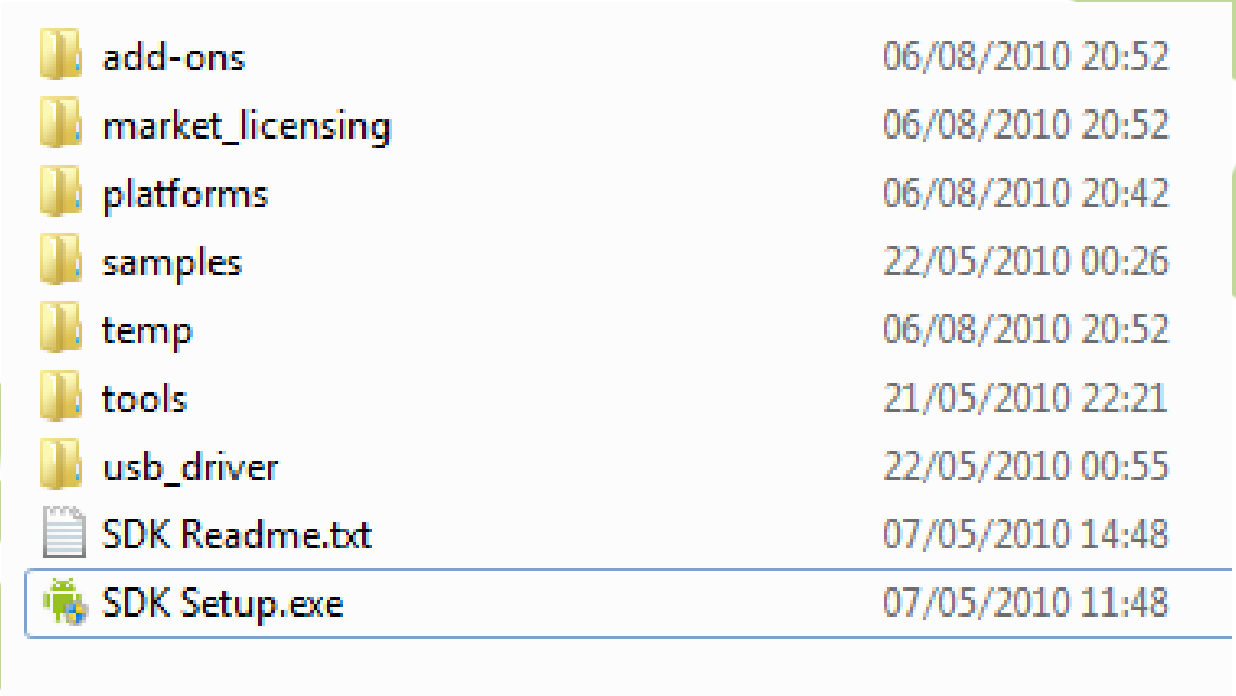
http://dl.google.com/android/android-sdk_r07-windows.zip

- Unpack it to a directory of your choice

http://developer.android.com/sdk/installing.html

Step 3-1: Installing the SDK/ AVD

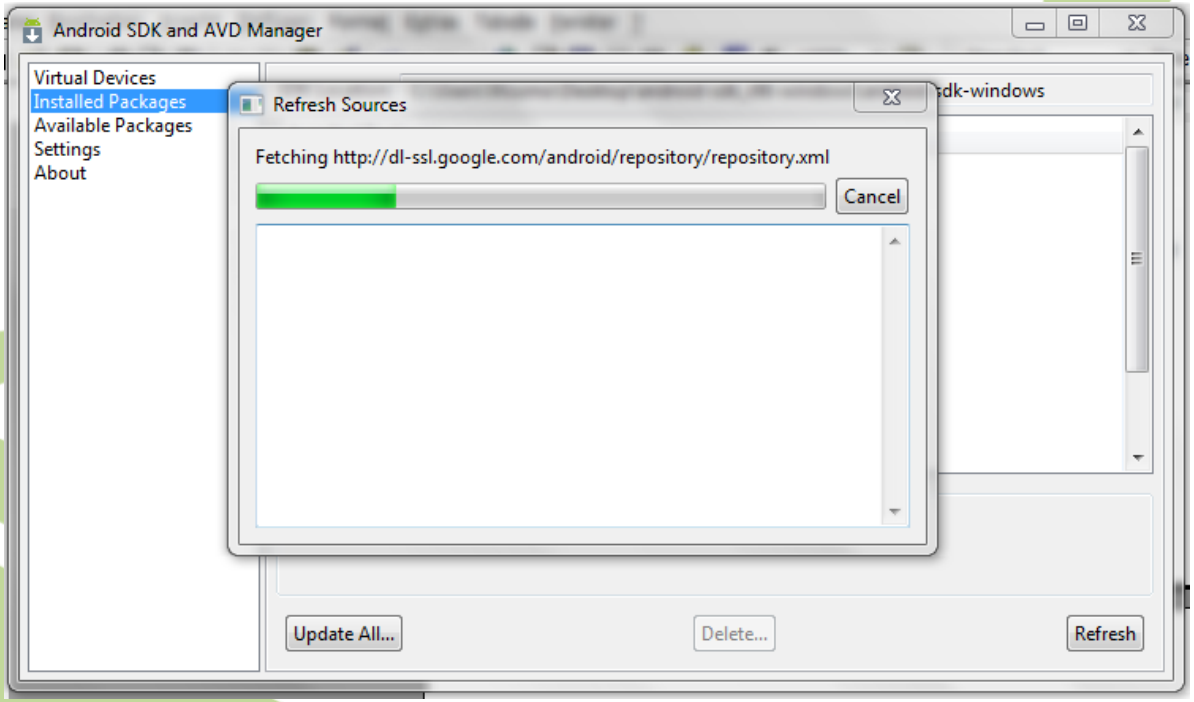
- After unpacking it, you should see the following structure



- Click on „**SDK Setup.exe**“

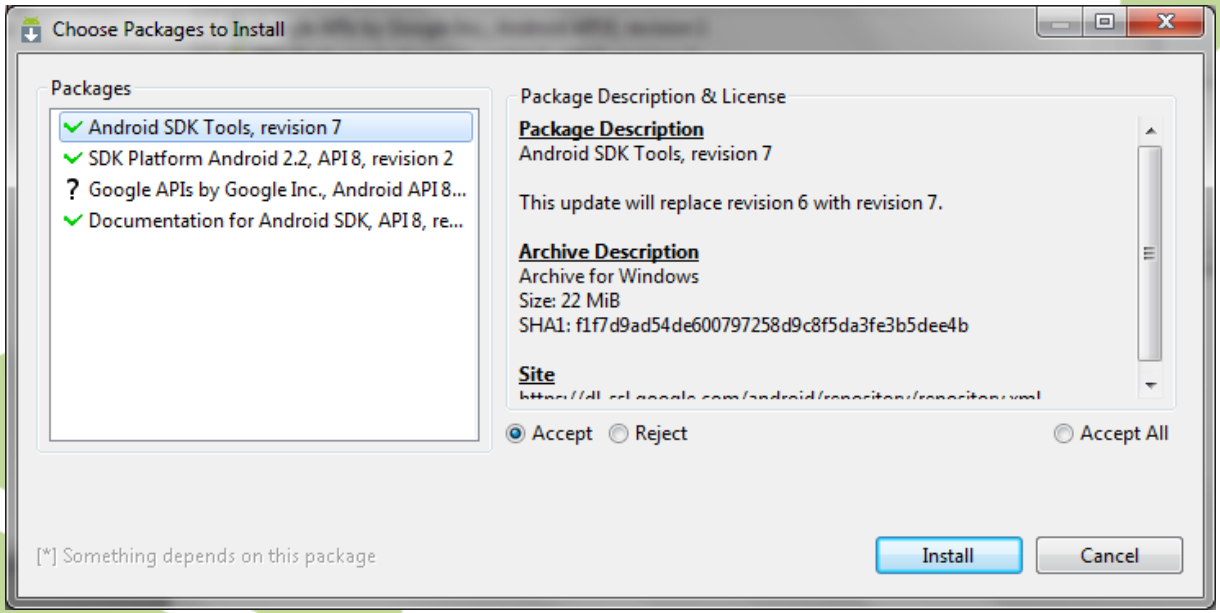
Step 3-2: Installing the SDK/ AVD

- AVD and SDK will fetch the latest sources from the Google servers



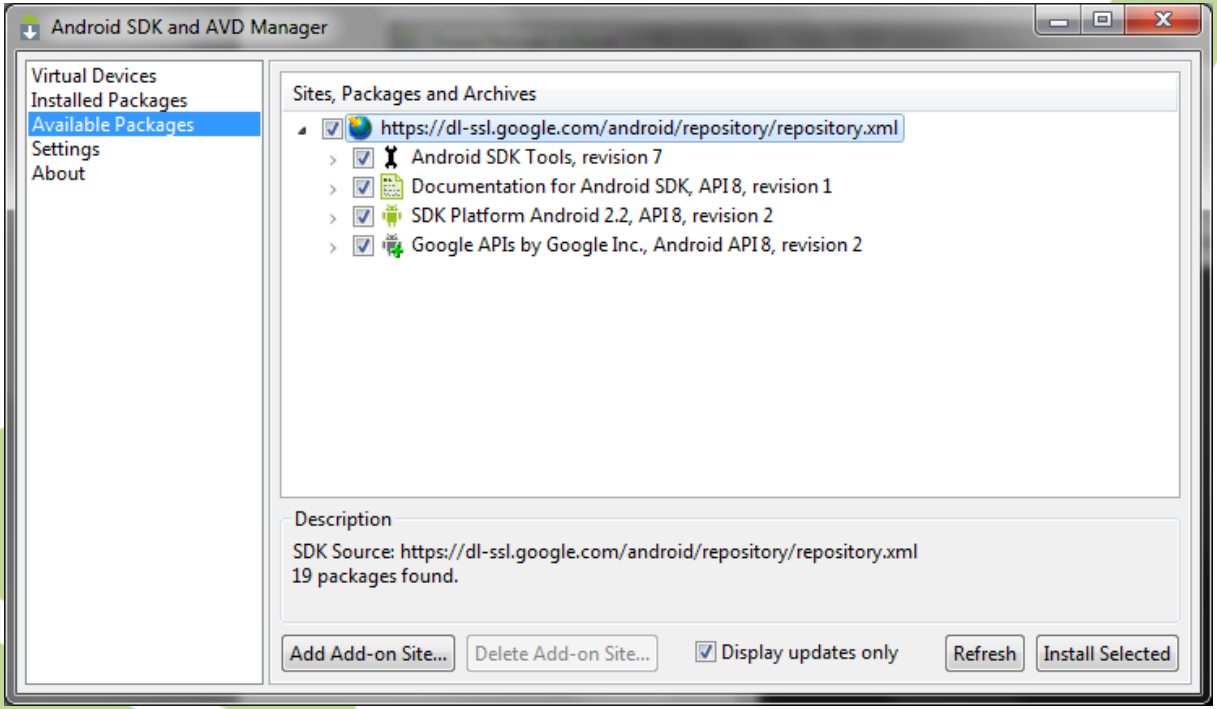
Step 3-3: Installing the SDK/ AVD

- You can choose packages. For Nexus One target development we recommend „**Android SDK Tools revision 7**“ and „**SDK Platform Android 2.2 API 8, rev** 8“



Step 3-4: Installing the SDK/ AVD

- Select the checkboxes matching your target configuration and press „**Install Selected**“



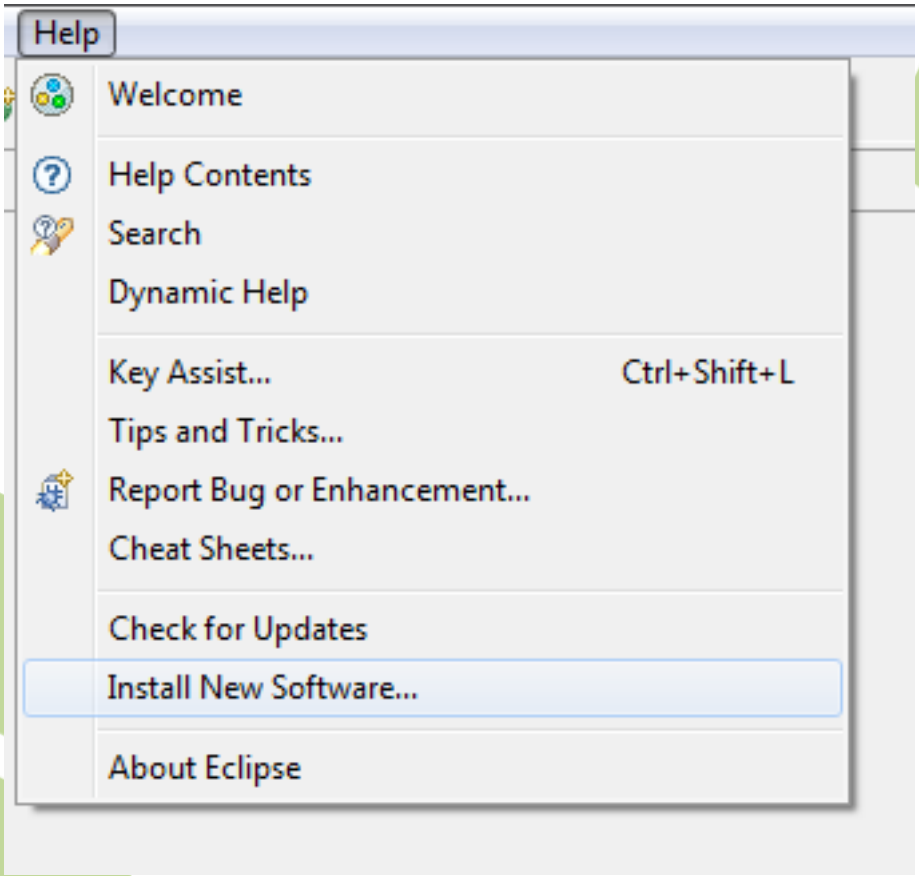
- Once it’s done you can close the window

Step 4-1: Installing the ADT (Android Development Tools)

- It's a small plugin, that will help you to better organize your Android projects with Eclipse
- Newest is ADT 0.9.9
- *http://developer.android.com/sdk/eclipse-adt.html*

Step 4-2: Installing the ADT (Android Development Tools)

- Go to : Help -> **Install New Software**



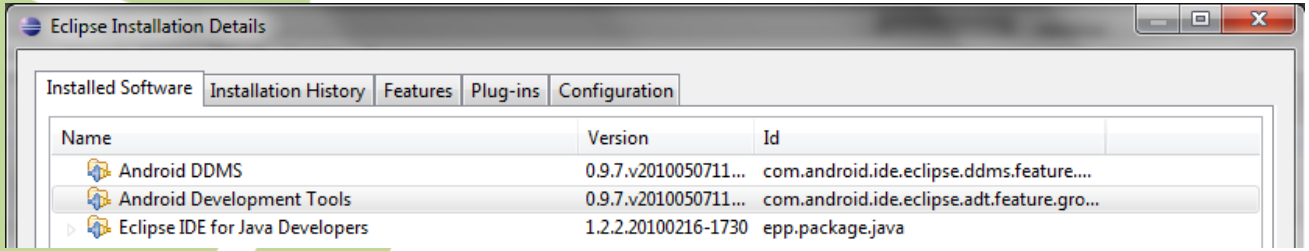
Step 4-3: Installing the ADT (Android Development Tools)

- Add Site : https://dl-ssl.google.com/android/eclipse/
- The download starts and after a few minutes the tools should be installed

- Restart Eclipse

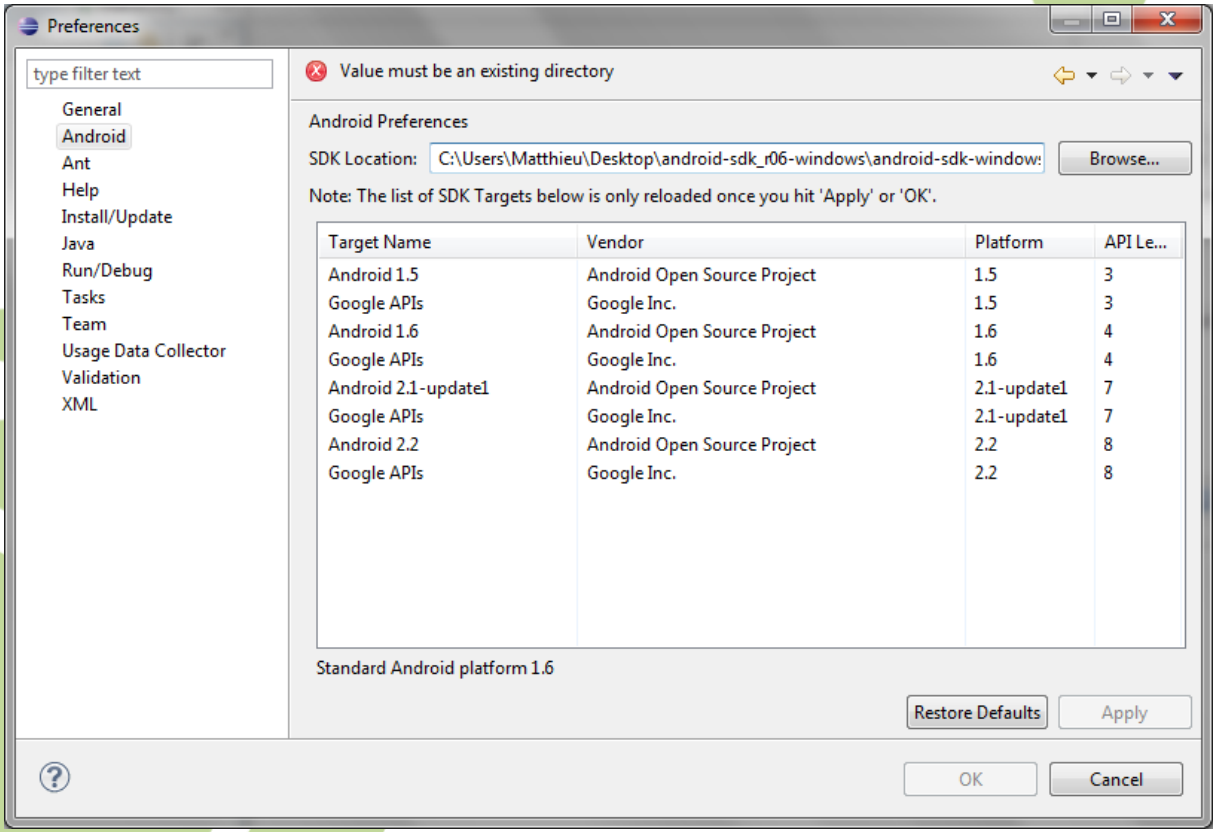
- You will notice this new bar:

- Under Installation Details: DDMS+ Android Development Tools



Step 5-1: Configuration of the AVD and SDK

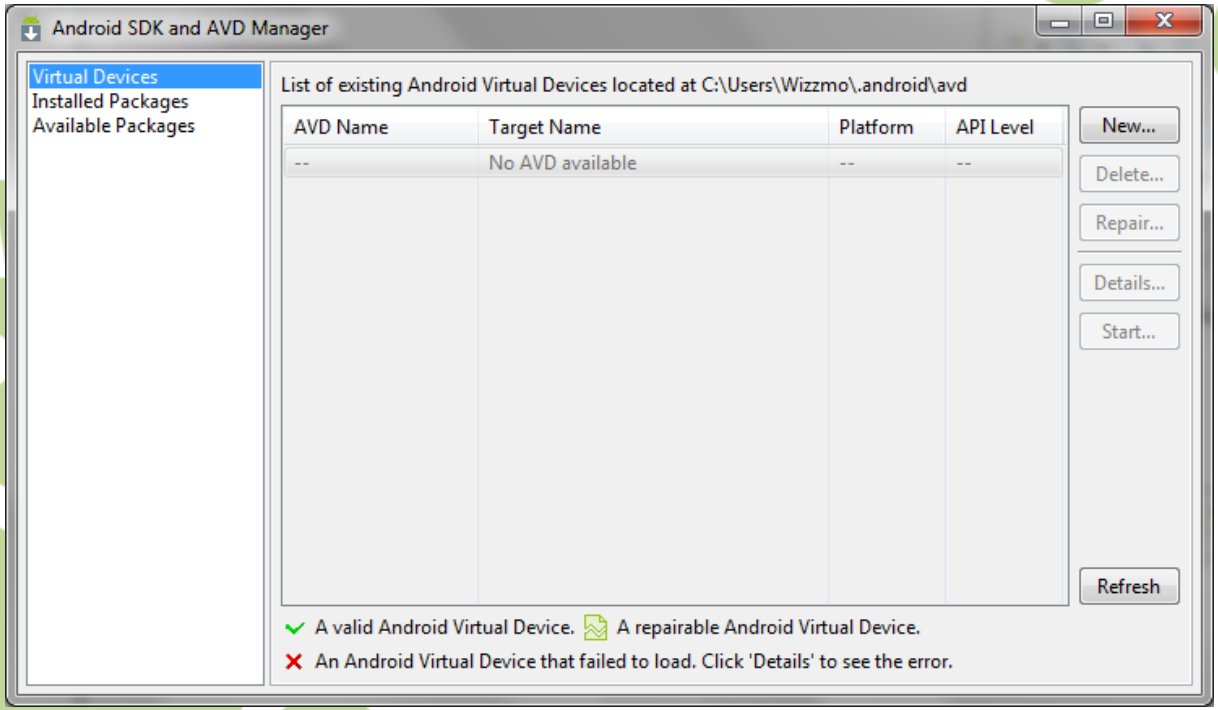
- You have already downloaded the SDK.
- In Eclipse under **Preferences** check that your **SDK** location points to the directory on which you downloaded the SDK.



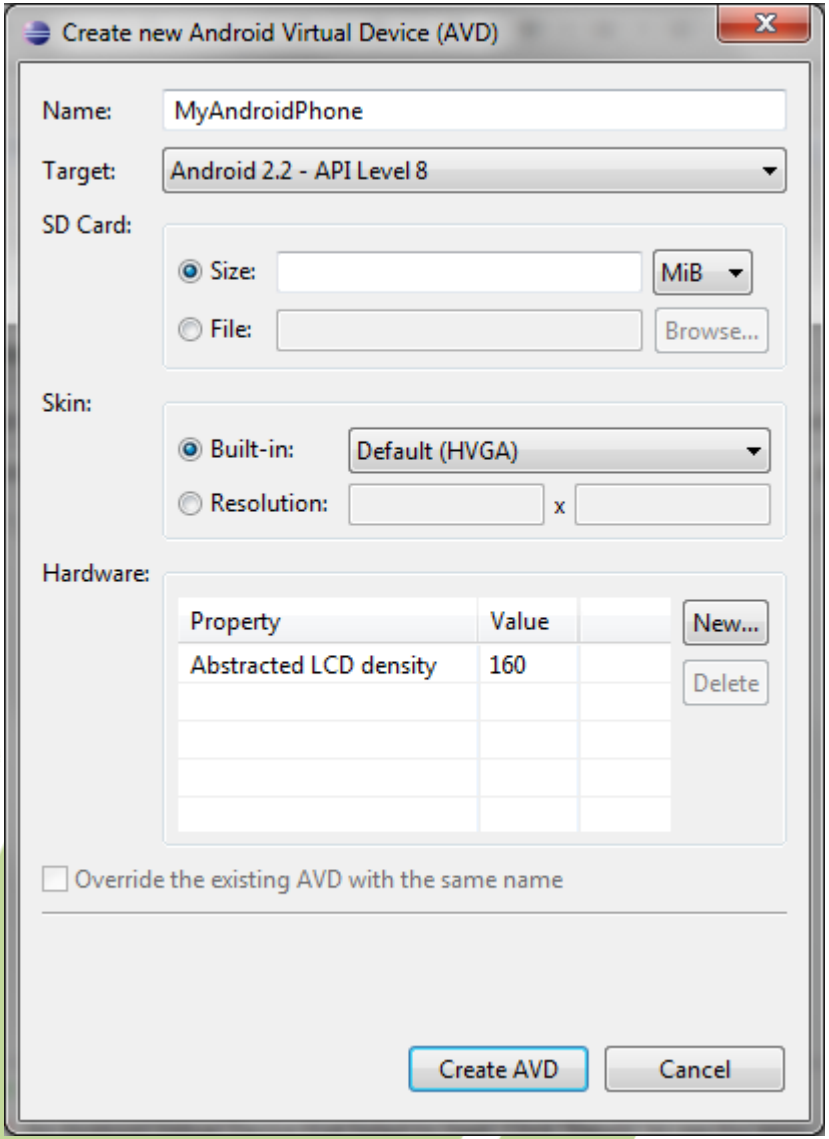
Step 5-2: Configuration of the AVD and SDK

- Click on this icon

- AVD Manager opens

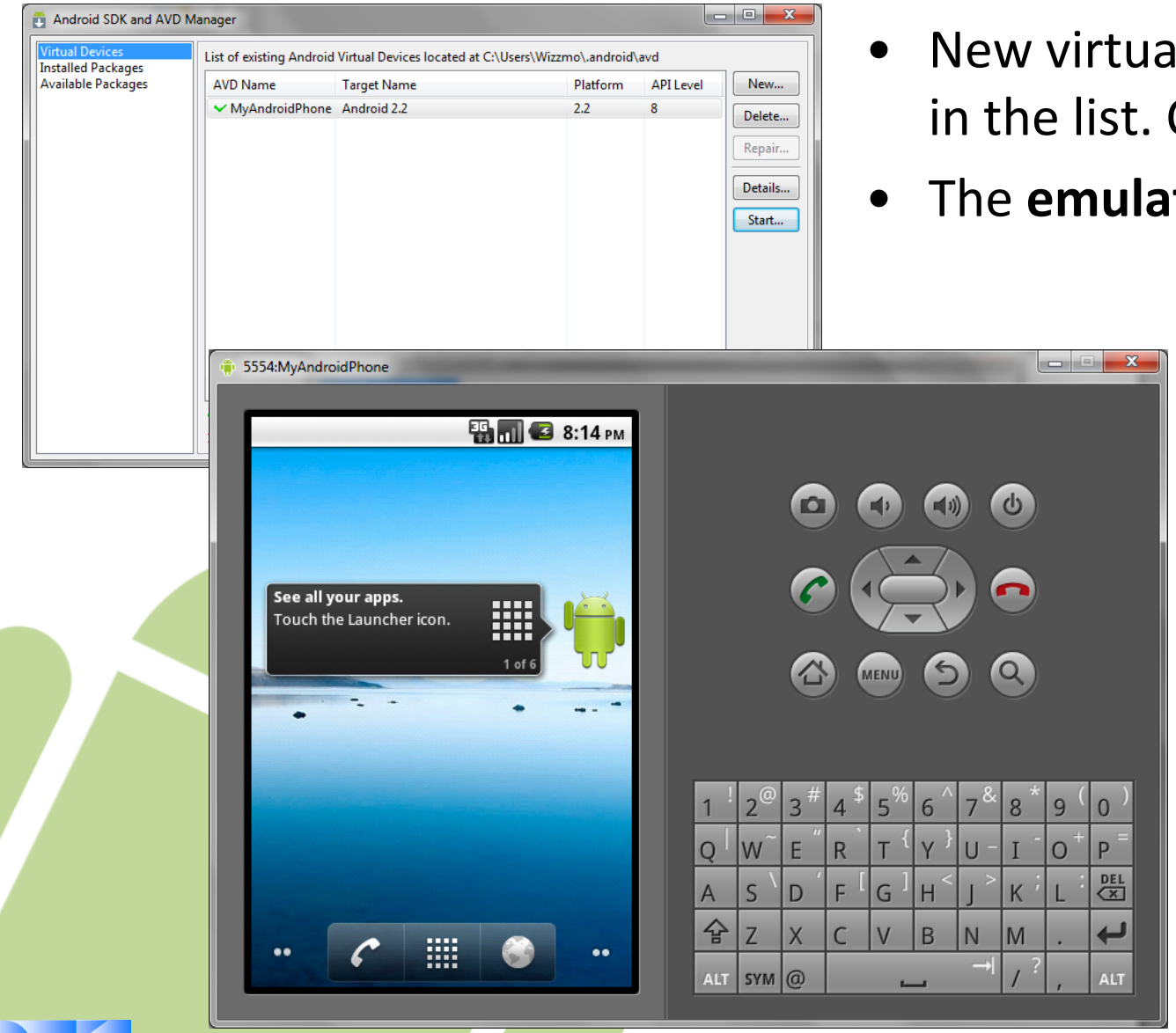


Step 5-3: Configuration your AVD



- Click on **New...**
- Give a name to your Phone ("**MyAndroidPhone**") and select a target. The target is the OS platform you'd like to simulate.
- In our case we want to simulate the **Nexus One** so we are choosing 2.2.
- Once finished you can Click on **Create AVD** (Android Virtual Device)

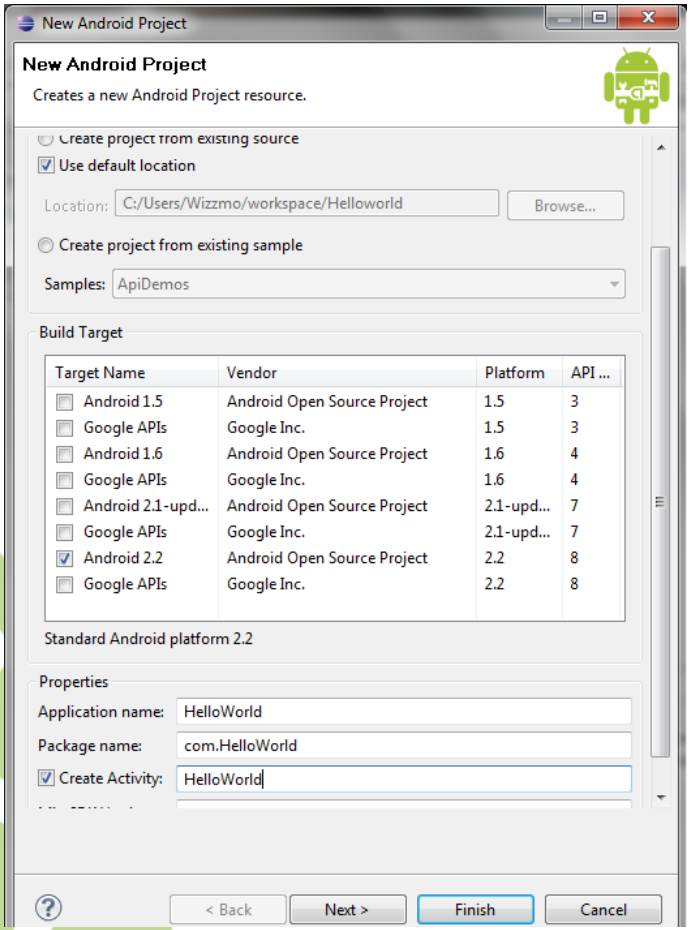
Step 5-4: Configuration your AVD



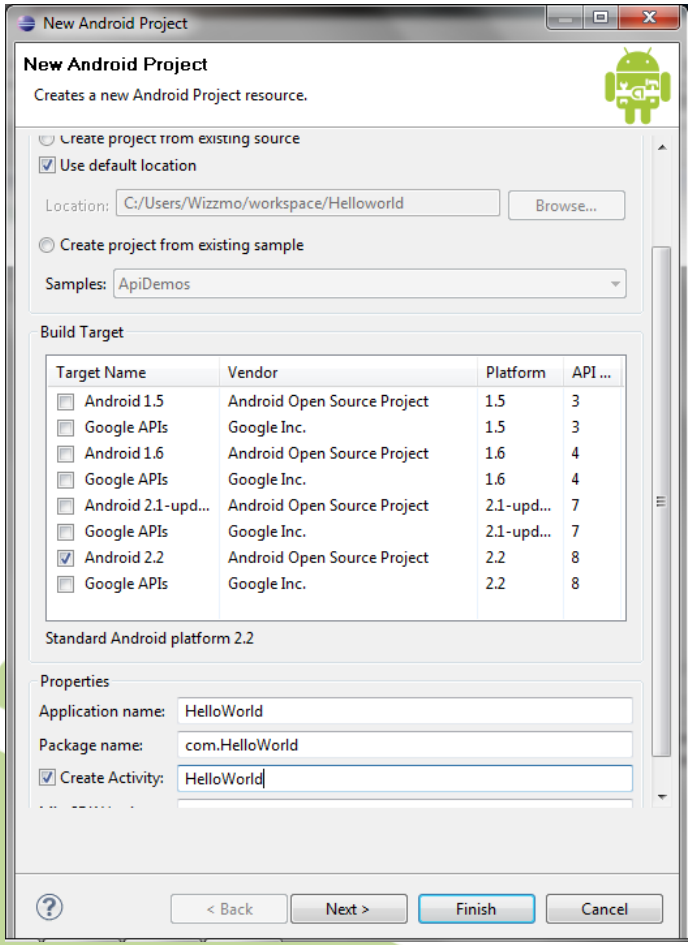
- New virtual phone appears in the list. Click on **Start**
- The **emulator** starts

Hello World 1/4

- In Eclipse : New -> Android Project

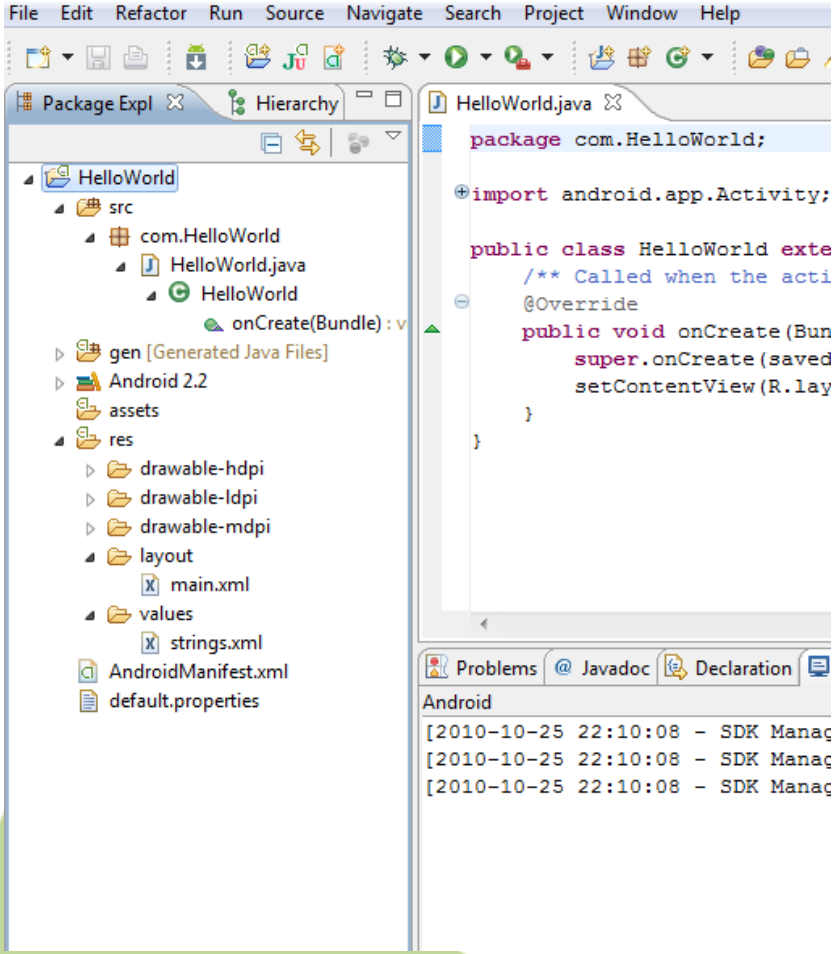


Hello World 2/4



- In Eclipse : **New** -> Android Project
- Select 2.2 as target platform

Hello World 3/4



- HelloWorld Project Structure

Hello World 4/4

- Now we need to start our “HelloWorld” app through the emulator

Highly recommend **NOT** to close the emulator each time you’d like to test or debug your application.

Connecting your Nexus One / Android Device

- Once you have connected your mobile phone, Eclipse will automatically launch and install the Application on the mobile phone

- If not :

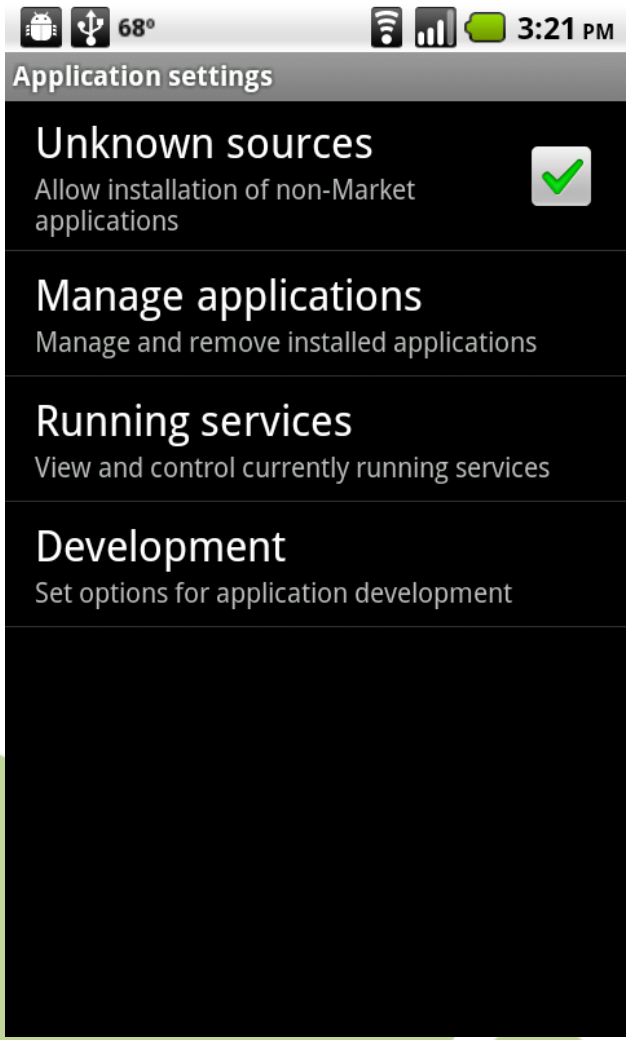
  ADB (Android Debug Bridge) commands

```
adb devices
```

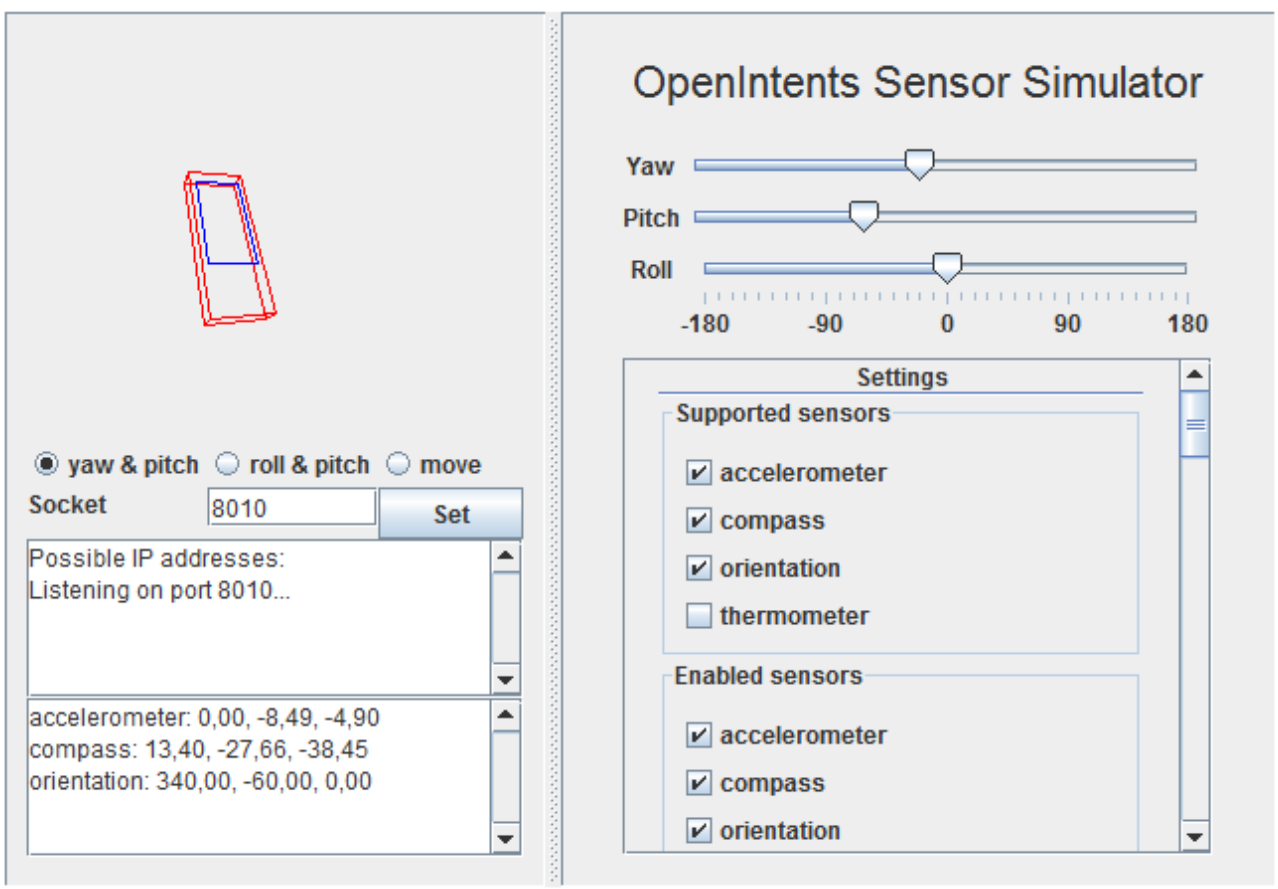
Installing the USB driver

- http://developer.android.com/sdk/win-usb.html

Connecting your Nexus One / Android Device, 2

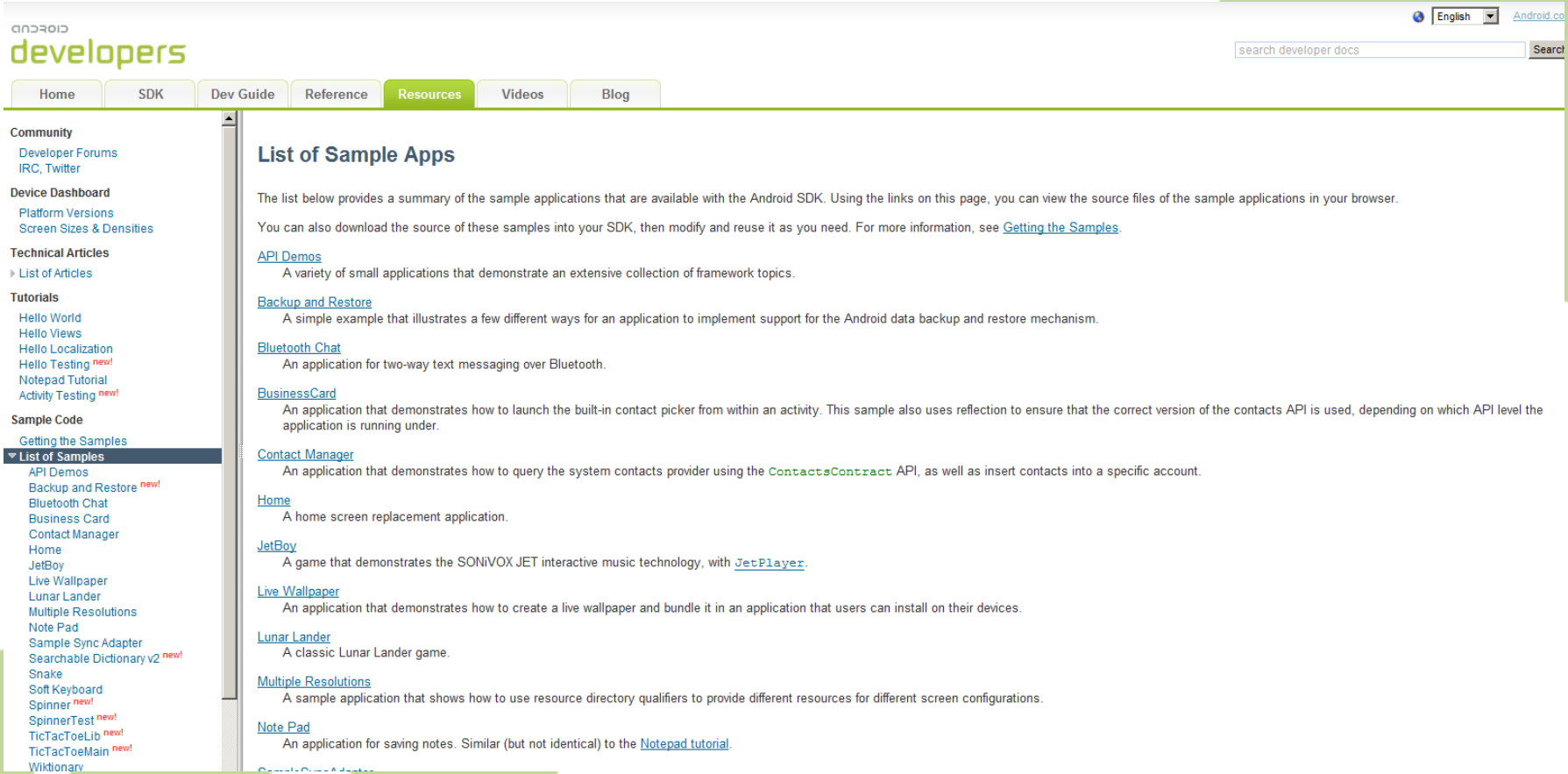


Sensor simulation



- http://code.google.com/p/openintents/wiki/SensorSimulator

It’s your turn !



http://developer.android.com/resources/tutorials/