

MATLAB to Android Demo

Last Update: September 15, 2015

Tested with

- MATLAB R2015b
- Android Development Tools v22.3.0-887826, with [Android NDK](#) r9b
- [OpenCV for Android](#) v2.4.9
- 64-bit Windows 7 machine
- Samsung Galaxy Tab 3 Lite

Goal

This demo is to show the workflow of going from a MATLAB algorithm, generating C code, import into an existing XCode project, compile & download & run the app on your iPhone or iPad.

Preparation

1. Hardware:
 1. Windows 7 64-bit
 2. Samsung Galaxy Tab 3 Lite
2. Software
 1. Android Development Tools v22.3.0-887826, with NDK r9b
 2. MATLAB R2015b
3. Install and set up Android Development Tools with the NDK.
4. Test if you can build a demo project for the simulator and/or physical Android device.
5. Unzip the downloaded ZIP-file (MATLAB-to-Android-R2015b.zip), and the 2 ZIP-files contained within it (cornerSlider.zip and matlabCode.zip), into its own directory.

Run the demo

1. Start Eclipse
2. Click File->Import
3. Select Android->Existing Android Code Into Workspace
4. Select Root Directory -> Browse -> Root directory where you unzipped cornerSlider.zip
5. Select both mCameraSlider and OpenCV Library
6. Click Finish
7. In Android.mk (under the JNI\src\ folder), change the following include to point to OpenCV.mk from your OpenCV for Android installation:

```
include C:\MATLAB\SupportPackages\R2015a\OpenCV-2.4.9-android-sdk\sdk\native\jni\OpenCV.mk
```
8. Right-click mCameraSlider project -> Properties
9. Select Android -> Under library, and remove the current OpenCV library
10. Then add the OpenCV 2.4.8 library from your current project again
11. Exit properties
12. Build all
13. Run Android app (Right-click on mCameraSlider project ->Run As->Android Application
14. Select Android tab, that's it

Sometimes the projects won't build correctly. In this case, clean all builds, then build the OpenCV project first, followed by the mCameraSlider project.