

Exercise 1

Instructions:

- The exercises are to be done individually (direct copying of code is not allowed), but you can of course ask your friends for advice. Good place for discussing the assignments and the course in general is channel **#aaltomomib** at IRCNet.
 - Some individuals will be asked to present their work to the group at the exercise sessions.
 - Support for Android development is provided by the course staff.
 - You can also use IOS, Windows phone, Meego etc., but with less support.
 - Testing on real mobile devices is recommended, but not mandatory.
- Be prepared to demo and explain your solution at the exercise session 29.3.2013 at 12:15.

Assignment

Compile an open-source video player application for your mobile platform of choice (writing your own application is also allowed). Test the video player application that you have compiled by playing back a video stream over RTP protocol from a video streaming server such as VLC. Be prepared to demo and explain both the compilation process and the playing back of the video to the group at the exercise session.

Hints for Android developers to get started:

- You can download the Android SDK bundle from <http://developer.android.com/sdk/index.html>, and set up the bundle following the instructions in <http://developer.android.com/sdk/installing/bundle.html>. The Android native development kit can be downloaded from <http://developer.android.com/tools/sdk/ndk/index.html>.
- Examples of open source video players for android are the Dolphin player (<http://code.google.com/p/dolphin-player>) and VLC (<http://wiki.videolan.org/AndroidCompile>).
- As VLC provides both client and server functionality, you can use VLC running on your laptop as the video streaming server (<http://www.videolan.org/doc/streaming-howto/en/ch04.html#id349956>).
- One way of connecting your mobile device to your laptop is using an ad-hoc Wi-Fi network. Connecting to an ad-hoc network with an Android device might require installing a third-party ad-hoc enabler application on the device. Another way of connecting the two is to connect both the Android device and the laptop to the same infrastructure-mode WLAN.
- Wireshark (<http://www.wireshark.org>) is a good tool for debugging connectivity problems.