
Subject: Re: Android builder

Posted by [Klugier](#) on Sun, 21 Feb 2016 19:53:52 GMT

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Hello Max,

I will tell you the truth. I was working on Android Builder during my studies and it is my Master Thesis :) So, the whole architecture is well documented (around 40 - 50 pages), but only in Polish. Current status is well described in this topic and in attached links. The best way to test Android Builder is to configure build method and build Android Math example.

What should be done in the future?

- Improvement in IDE infrastructure (reading logs from device via "adb logcat", debugging through jdb, ndk-gdb etc.)
- Improvement in Android Builder - support for unit tests - should speed up development process (We need some kind of TDD)
- The IDE should be able to launch App directly in emulator
- Gradle integration (I think we should use some kind of Java make - for example Qt uses Ant). Currently we compile Java sources in single thread.
- Porting Core (It shouldn't be hard - I ran it with simply commenting code - but some things may need improvements like language support!!!)
- Writing GUI back-end for Android (How should we implement Android activities???)
- Implement native drawing through canvas or OpenGL ES
- OpenGL ES support
- Ultimate++ should support GUI containers like Grids, LinearLayout etc.
- Android high DPI support (I think it shouldn't be hard to implement due to current changes in Draw) - Smart-phones with 4k display :)
- JNI support we need to call Java code from C++ and vice versa.
- Probably a lot of more things that I forgot to enumerate.

Optional tasks:

- Support for things like accelerometer, video camera etc (Optional).

As you can see U++ with Android is huge project. And it will require a lot of time. That I actually do not have. Currently I am working as a full-time developer in one of local companies. But if someone or a company wants to pay for my job on Android Builder and Android app integration - I'm open to suggestions. Even if it would be one day per week.

Currently I am posting small patches like XML indent support for IDE:

- <http://www.ultimatepp.org/redmine/issues/1353#change-2790> (Should be useful for editing Android manifest file :))

P.S.

If you want more information we can talk on Skype.

Sincerely,
Klugier
