Targeting multiple mobile platforms with Qt Creator

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• Users migrating from Desktop to Mobile platforms.
• Users targeting multiple Mobile platforms with new or existing apps.
Agenda

Strategies to target multiple mobile platforms

Develop and deploy using Qt Creator

Strategies to target multiple mobile platforms with Qt

Qt is glorious!

• Faster Development Time
  – Shorter learning curve
  – Common code base
  – Comprehensive cross-platform tools

• High performance

• Smaller and cohesive team

• Higher ROI, Faster Time to market
... but Qt is not a magician!

- Functional tools.
- Need to use them appropriately.
Application Architecture

UI / Presentation Layer
  QML

Model / Controller / Engine / Backend
  C++
UI Resources

QML Presentation Layer

Resource Loader
QFileSelector / QQmlFileSelector

C++ Engine

Native UI (Look-and-Feel)

- Android
- BB10
- iOS
- ...

QML Presentation Layer

C++ Backend
UI Navigation

QML Presentation Layer

State machine  C++ Backend
Platform / Device features

- Gyroscope frame
- Spin axis
- Gimbal
- Rotor

Bluetooth

BlackBerry Q10
Code Maintainence

• Smoke check builds after incremental changes

• Test performance and UI on all platforms after incremental changes

• CI is your best friend
Develop and deploy using Qt Creator

Qt Creator

Version info

- Qt version info – 5.1.1
- Qt Creator version info – 3.0
- Sailfish SDK version info – latest alpha (Oct 1, 2013)
Setting up Android

- Android SDK
  - For Windows: Install Android Debug Bridge provided by device manufacturer to enable USB debugging.
- Android NDK
- Apache Ant v1.8 or later
- JDK / OpenJDK v6 or later
- Run `<adb>/sdk/tools/android update sdk`
- Configure Qt Creator
Setting up Blackberry

- Blackberry 10 NDK
- Run sdkinstall --install x.x.x.x
- Run sdkinstall --simulator (Requires VMPlayer)
- Configure Qt Creator
Setting up for iOS

- Install latest XCode
  - iOS SDK
  - Command line tools
- Get a developer license
- Configure Qt Creator

- Deployment works out of the box
- Debugging support – Qt Creator 3.0
Setting up for Sailfish

- Requires VirtualBox
- Sailfish SDK from www.sailfish.org website
Summary

- Dedicated Resource Handler
- Keep styles in separate QML components
- Use a state machine for UI navigation
- Do not assume platform/device features
- CI is your best friend
- Development environment setup
- Build and Deploy
THANK YOU

Contact

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