Qt Project Update
(Updated)

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Tallinn

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Who am I?

- Open Source developer for 15 years
- KDE hacker since 2000/2001
- Software Architect at Intel’s Open Source Technology Center (OTC) since last year
- Maintainer of two modules in the Qt Project
  - QtCore and QtDBus

- MBA and double degree in Engineering
- Previously, led the “Qt Open Governance” project
  - Ended with the creation of the Qt Project
Qt Project live for 8 months!
Project Roles

- **Chief Maintainer**
  - Leads maintainers with ultimate decision making power

- **Maintainers**
  - Final responsible for a given module or port

- **Approvers**
  - Approves / rejects contributions

- **Contributors**
  - Contributes code to Qt

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Some Numbers

• In these 8 months
  - ~18000 merged commits
  - ~40% non Nokia contributions on qtbase
  - >10% non Nokia contributions on qt-creator
  - Top contributors: Nokia, Many individuals, KDAB, Digia, Intel, RIM, Woboq, Moiji Mobile, Accenture, Collabora
  - 481 different committers (by email)
Weekly commits to Qt
Non Nokia commits
Qt 5 - Goals

• Works for whole ecosystem

• State-of-the-art UIs

• Modular

• Small footprint

• Compatible with Qt 4.x
What is new in Qt 5.0?

- Qt Quick 2
- New structure
- New graphics stack
- All platforms use QPA and share more code
A taste of new features...

• JSON support
• Mimetype support
• Performance improvements
• QStandardPaths
• XCB instead of Xlib
• QRegularExpression based on PCRE
• New Signal/Slot connection mechanism
• C++11 support
• WebKit2 architecture in QtWebKit
• V8 as JS engine
• …
Structure of Qt 5

SDK

Tools

Qt Add-Ons

Qt Essentials

Platforms

Linux
Wayland

X11

Windows

Mac OS X

Your Platform

...
Essential

- Qt Core
- Qt Network
- Qt Gui
- Qt Widgets
- Qt WebKit
- Qt Multimedia

- Qt Sql
- Qt Quick 1
- Qt Qml
- Qt Quick 2
- Qt 3D
Add-On Modules

- Qt Widgets (desktop)
- Qt Quick components
- Qt Svg
- Qt Xml
- Qt XmlPatterns
- Qt Script, Qt Script Tools
- Qt Concurrent
- Qt Print Support
- Qt Help
- Qt UiTools
- Qt Designer
- Qt ActiveQt (Windows)

- Qt WebKit (WebKit1)
- Qt Multimedia Widgets
- Qt Feedback
- Qt 3D
- Qt Compositor
- Qt Wayland
- Qt Graphical Effects
- Qt Json Db
- Qt Mime Type
- Qt Organizer
- Qt Contacts
- Qt Versit
New Graphics Stack

• Qt 5 supports two rendering paradigms
  - Software rasterizer/QPainter: used by QWidgets
  - OpenGL (ES): used by Qt Quick 2

• QPainter
  - Optimised for many years

• Qt Quick 2 is built and optimized for OpenGL
  - Even SW rasterization can give great performance
Qt 5.0 Platforms

• Reference platforms:
  - Windows
  - Mac OS X
  - Linux/X11
  - Linux/Wayland

• Other platforms expected as well
  - Direct FB backend contributed right after Qt Project launch
  - Android and iOS ports actively being worked on
  - QNX port
Qt 5.0 Milestones

• Feature frozen
• Alpha is out
• Beta in Real Soon Now™
• Done during the Fall
Migrating from Qt 4 to Qt 5

- Compatible with Qt 4 with very few exceptions
- Qt Widgets are supported in Qt 5
- Doesn’t require migration to Qt Quick
- Doesn’t require OpenGL
- Doesn’t require JavaScript
After Qt 5.0

- Time based release schedule
  - 2 feature releases per year
- Possible focus areas
  - Full Desktop support in Qt Quick
  - Integrated Software OpenGL renderer
  - Continue to evolve the WebKit2 based Qt WebKit
  - More processor architectures for JavaScript
  - Improvement on the V4 engine
Summary

• Qt Project
  - Fully open and transparent
  - Join us to drive Qt forward
  - Fully backed by Nokia

• Qt 4.8
  - Released in mid December 2011
  - Supported for a long time

• Qt 5
  - Adapts Qt to a changing world
  - Very easy transition from Qt 4
  - QWidgets still fully supported
  - QML offers innovative ways to build UIs
Thank you!
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