Qt Project and Qt 5

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Lars Knoll, Qt Chief Maintainer
Thiago Macieira, Qt Core Maintainer

Qt Project live for 3 months!

Qt Project

Fair

Transparent

Inclusive

Meritocratic

Benefits of Qt Project

Richer releases

Increased
stability

**Broader Qt
Ecosystem**

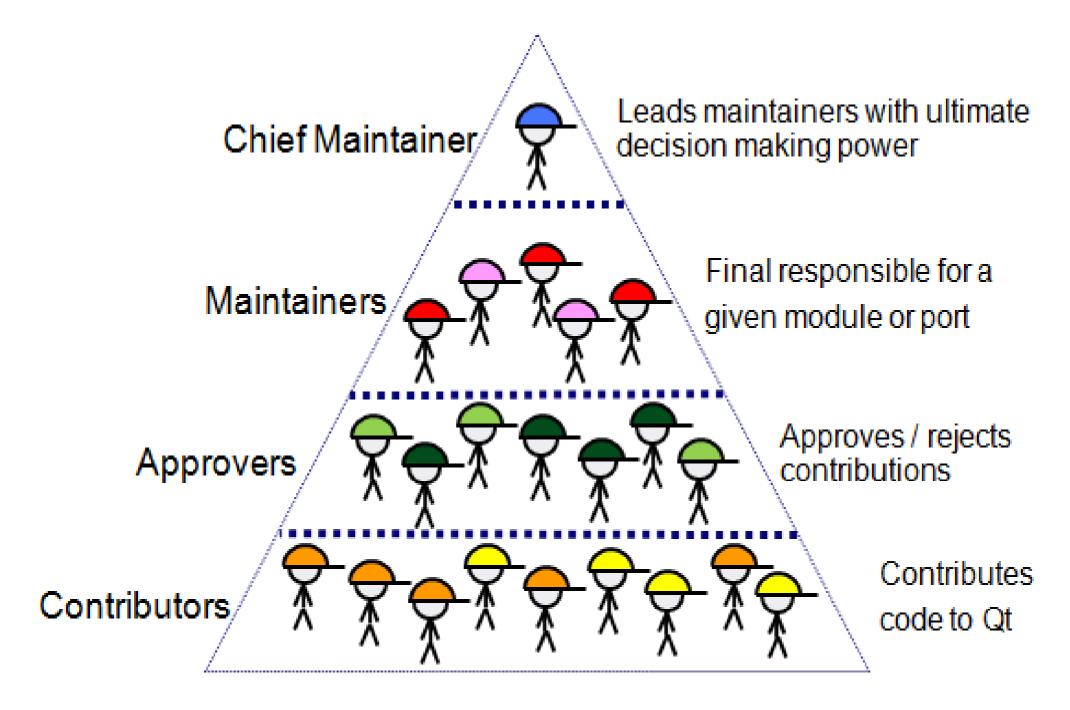Increased visibility
to
the future of Qt

More opportunities
for Qt experts

You can make Qt
fit your needs

Project Roles

Chief Maintainer — Leads maintainers with ultimate decision making power

Maintainers — Final responsible for a given module or port

Approvers — Approves / rejects contributions

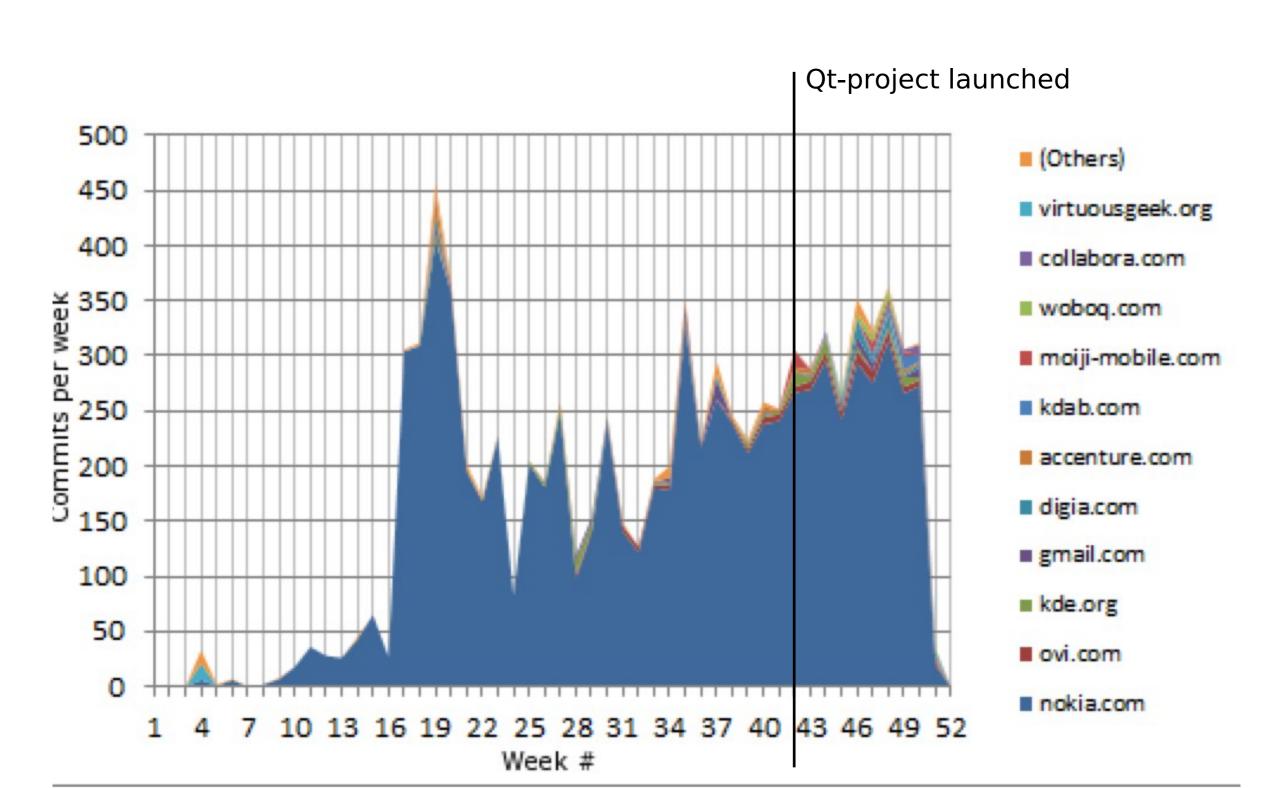Contributors — Contributes code to Qt

Some Numbers

- Since launch of Qt Project (3 months)
  - ~1000 new accounts
  - >7000 merged commits
  - ~30% non Nokia contributions on qtbase
  - >10% non Nokia contributions on qt-creator
  - Top contributors: Nokia, Many individuals, Digia, KDAB, Accenture, Collabora, KDE, Moji Mobile, Woboq
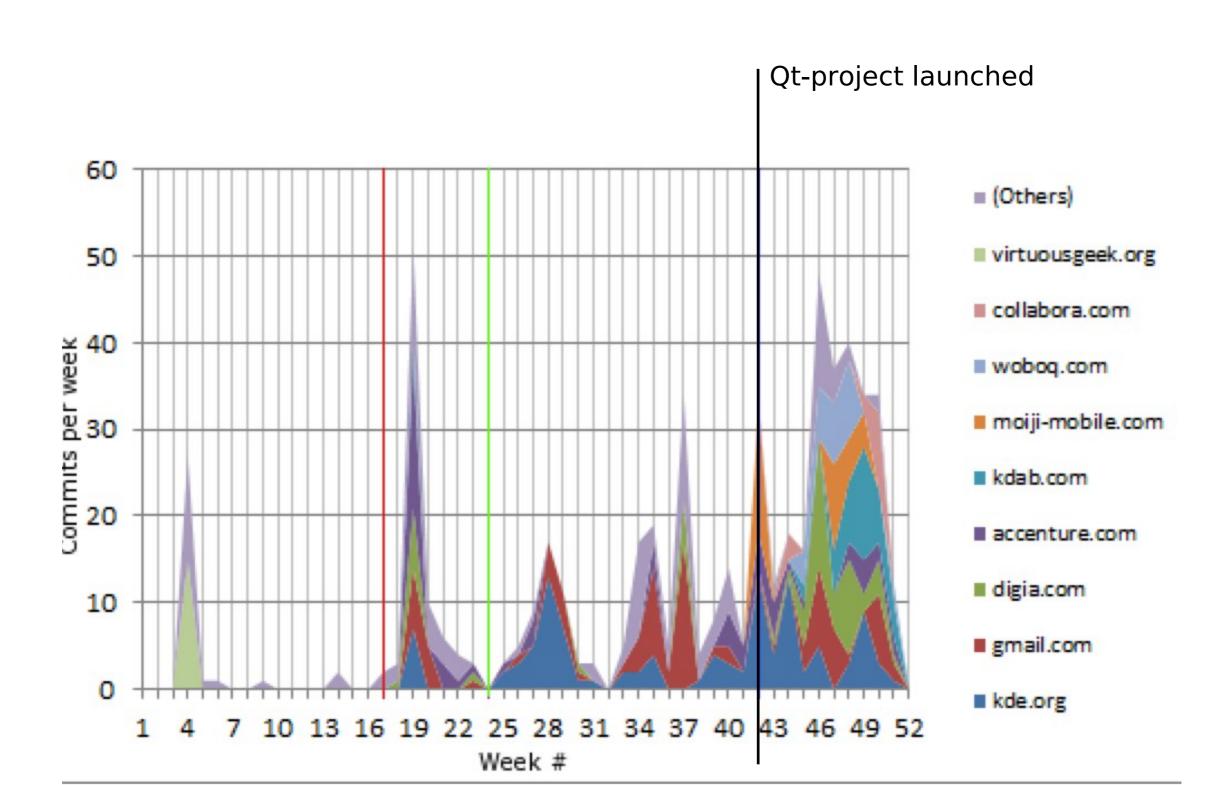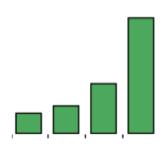
Weekly commits to Qt

Non Nokia commits

Qt-project launched

Commits per week

60
50
40
30
20
10
0

Week #

1   4   7   10   13   16   19   22   25   28   31   34   37   40   43   46   49   52

Legend:
- (Others)
- virtuousgeek.org
- collabora.com
- woboq.com
- moiji-mobile.com
- kdab.com
- accenture.com
- digia.com
- gmail.com
- kde.org

&

Qt 4.8 - What is in the box?

- Qt Quick 1.1

- Performance Improvements

- New HTML5 features

- Easier porting to new platforms

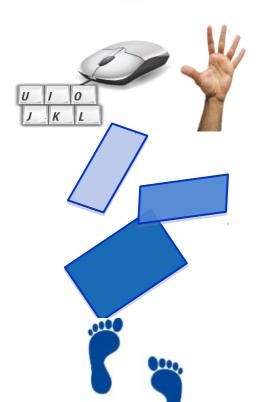# Qt 5

Qt 5 - Goals

- Works for whole ecosystem

- State-of-the-art UIs

- Modular

- Small footprint

- Compatible with Qt 4.x

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What is new in Qt 5.0?

- Qt Quick 2

- New structure

- New graphics stack

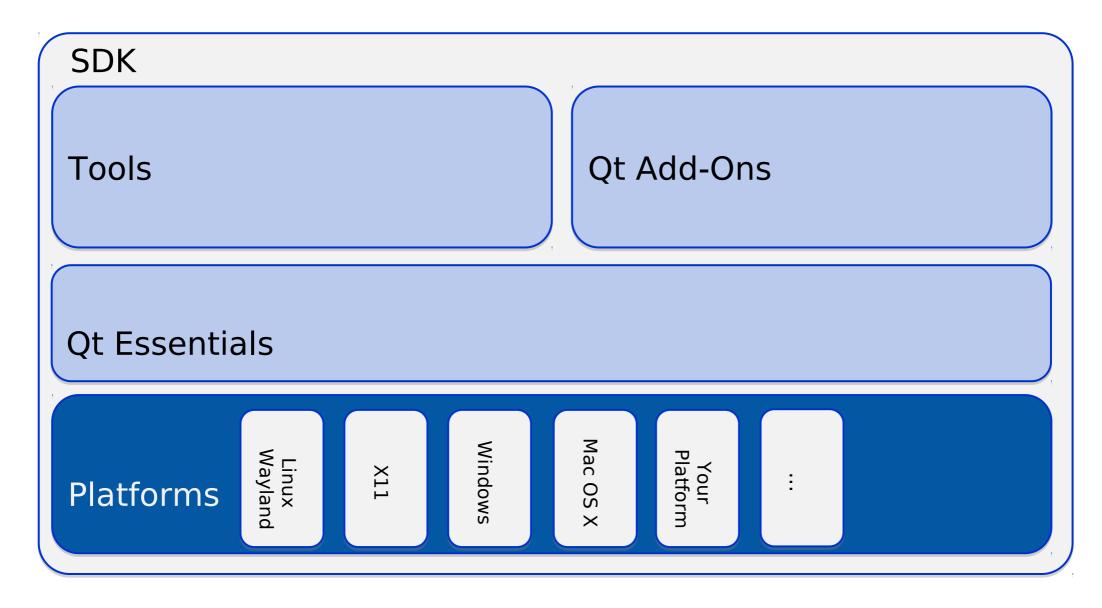- All platforms use QPA and share more code

A taste of new features...

- JSON support
- Mimetype support
- Performance improvements
- QStandardPaths
- XCB instead of Xlib
- QRegex 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

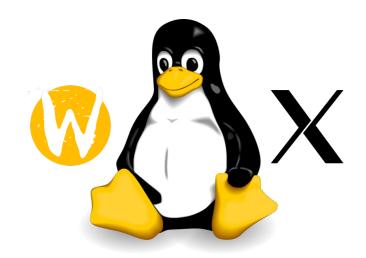Windows

Mac OS X

Your Platform

...

Essential

- Qt Core
- Qt Network
- Qt OpenGL
- Qt Qml
- Qt Quick
- Qt WebKit
- Qt Multimedia

- Qt Sql
- Qt Location
- Qt Sensors
- Qt Service Framework
- Qt Publish & Subscribe
- Qt System Information

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
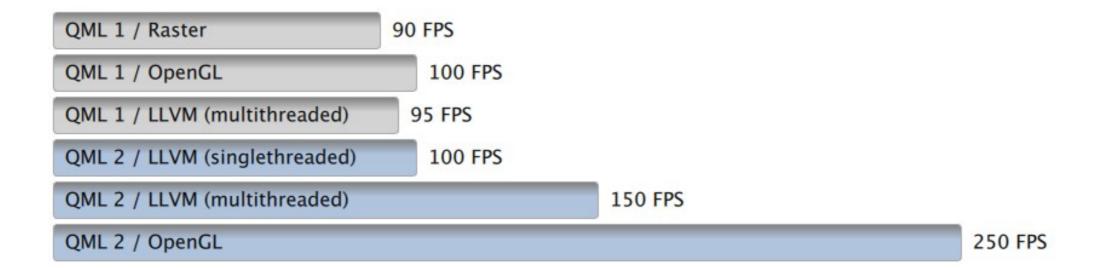- Qt Versit

Scope of Qt 5

- Combines modules of Qt 4 and Qt Mobility
- Qt Essentials
  - Modules available on all platforms
  - Functionality most commonly used in applications
  - Binary compatible through Qt 5 series
  - QML, Webkit, OpenGL, multimedia, location, maps, etc.
- Qt Add-on Modules
  - Modules used in specific contexts only
  - Widgets, many former Qt 4 and Qt Mobility modules, QML components, 3D, graphical effects, etc.

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

QML 1 / Raster	90 FPS
QML 1 / OpenGL	100 FPS
QML 1 / LLVM (multithreaded)	95 FPS
QML 2 / LLVM (singlethreaded)	100 FPS
QML 2 / LLVM (multithreaded)	150 FPS
QML 2 / OpenGL	250 FPS

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 beginning of March

- Beta in early spring (April)

- Done in 1st half 2012

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

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!