Meet Qt Canada
MEET QT
Agenda

Welcome to Meet Qt
Qt Roadmap
Introduction to froglogic
Qt Design Studio
Qt Professional Services
Live Q&As
Introduction to froglogic
froglogic: a history

› Harri Porten & Reggie Stadlbauer, former Qt devs
› Founded in 2003
› Focus on QA tools
› Side-by-side with Qt since
froglogic: a (modern) history

› Moving forward: more tech support added to Squish
› New tools to support QA: Code coverage and results management
› Customers worldwide & in diverse industry contexts
› Acquired by The Qt Company in April 2021
Who needs GUI test automation, anyway?

- Testing GUIs and HMI devices have been historically time-consuming and error-prone.
- Touch-screen devices are ubiquitous.
- Automation:
  - Significantly reduces time to run tests.
  - Enables more tests to be run.
  - Allows tests to be run more often.
  - Detects regressions sooner.
Dedicated Qt Support

› Qt6.x to Qt3.x
› Qt Widgets, QML & Qt Quick
› Standard & complex controls
› Qt + Windows, Web
› Custom Controls
Coco: a code coverage toolchain

› Testing blindly or testing smarter?
› With Coco:
  › Identify untested code
  › Integrate into a/typical or generic test frameworks
  › Eliminate redundant tests
  › Optimize test execution order
  › Patch analysis
› Other features:
  › CI system integrations
  › Function Profiling
  › Blackbox testing
  › Tool Qualification Kits for safety-critical applications
› Squish GUI integration

```cpp
validCCN({ 4, 5, 3, 9, 1, 4, 8, 8, -3, 1, 4, 3, 6, 4, 6, 7 });

#include <vector>

// Checks if the given credit card number is valid or not
bool validCCN(std::vector<int> number)
{
    if (number.size() < 1) return false;

    // Double every second digit, start from the back
    for (int i = number.size() - 1; i >= 0; i -= 2)
    {
        int digit = number[i];
        if (digit < 10 || digit > 9)
            return false;
        digit *= 2;
        if (digit > 9)
            digit -= 9;
    }

    // Calculate sum of all digits
    int sum = 0;
    for (int i = 0; i < number.size(); ++i)
        sum += number[i];

    // The credit card number is valid if the sum is a multiple of 10.
    return sum % 10 == 0;
}
```
Coverage Metrics

- Function
- Line
- Statement
- Decision
- Condition
- MC/DC (Modified Condition/Decision Coverage)
- MCC (Multiple Condition Coverage)
Test Center: A Test Reports Management Platform

› Lots of tests = lots of test results
› Results need to be stored and shared centrally
› Lots of factors involved: multiplatform scenarios; branches, etc
› Connect results to requirements/test management and issue reporting/tracking
Test Center: A Test Reports Management Platform

- With Test Center:
  - Access anywhere with a web browser
  - Dashboards, page views
  - Advanced statistics built-in; filtering, grouping
  - Correlation analyzer
  - Achieve traceability w/ 3rd party integrations
  - Repository integration (e.g., Git)
Qt Design Studio
What is Qt Design Studio?

A tool for both designers & developers to make collaboration simpler and streamlined

- Design beautiful experiences all the way from early wireframes to final pixel-perfect implementation
- Rapid, iterative and incremental prototyping to validate the designs with target device
- Bridging the gap between design and development with the unified toolchain
Qt Design Studio

› Visual 2D editor
  › Import designs from Photoshop, Sketch, and Figma

› Visual 3D scene editor
  › Import assets in, e.g., such as .blend, .dae, .fbx, .glb, .gltf, and .obj formats

› Advanced code editor

› Flow editor with customizable transition effects

› Dynamic behaviors
  › Connection editor
  › State editor
  › Transition editor
  › Binding editor
  › Logic helpers for binding property values, and for mapping numbers and numerical ranges

› Keyframe-based timeline animations
  › Ready-made and customizable easing curves

› Dynamic and scalable layouts

› Ready-made customizable UI components

› Built-in and customizable visual effects

› Live Preview designs on target devices

› Design annotations

› Improved MCU support

› Simulink support
Qt Design Studio from wireframes to final implementation

Unified 2D/3D design tool for all phases

Wireframing with QDS
- Create 2D & 3D UIs
- Built-in, ready to use & customizable components
- Scalable layouts

Prototype with QDS
- Simulate complex experiences
- Full control on dynamic behaviors
- Validate with target HW
- Import designs from prototyping tools

Motion design with QDS
- Production quality, detailed motion design
- Imports from content creation and prototyping tools
- Optimization with target HW

Asset creation with content creation tools

Implement with QDS
- Cross-platform
- Reusable prototypes and full UI implementation
- Less need for spec writing & maintenance
- Fast parallel development
- One toolchain with QDS & Creator

DS

Wireframe Component level
- Ps
- Ai

Prototype Interaction level
- Bridge

UI mock-up Style level
- Ps
- Ai

Product UI Implementation
- Import

Qt
As the owner of Qt, we own the IP. This gives us the unique ability to provide the ultimate in customer support experience as we can provide a direct relationship with our R&D organization.

With expert trainers that are experienced practitioners, we move beyond theory, providing valuable high impact training that outlines specific business goals.

As the owner of Qt, we own the IP. This gives us the unique ability to provide the ultimate in customer support experience as we can provide a direct relationship with our R&D organization.

We’re a think tank of subject matter experts and practitioners on a mission to build your world with Qt.

Workshops
A deep dive into technology considerations, user experience design, software architecture and best practices. We eliminate risks early by advising on best Qt practices.

Custom Services
We deliver software design and implementation services to enhance the solution and end-to-end project lifecycle management from idea to the product phase-out.

Training Services
With expert trainers that are experienced practitioners, we move beyond theory, providing valuable high impact training that outlines specific business goals.

Unique Support
As the owner of Qt, we own the IP. This gives us the unique ability to provide the ultimate in customer support experience as we can provide a direct relationship with our R&D organization.

Minimize Total Cost of Ownership
Mitigate Technical and Security Risks
Shorten Time to Market
Optimize Performance
Harness the Power of Qt Ecosystem
The Qt Company Professional Services

Device Creation (Qt Platform Adaption implementations, Backports, Qt BSP Creation, Boot Time & Performance Optimizations), MCU related services

App Development (Desktops, Android, iOS)

Qt Framework (Extensions, Upgrades, SDKs)

Conversions (MFC, etc..) from other toolkits

PoC creation, Porting Qt to customer HW/OS

Concept development & UX design Services

Starter Pack

Training

Technical Workshops

Staff Augmentation

Strategy & Portfolio Planning

Concept Dev.

Concept Validation

Prototype Dev.

Prototype Validation

Program & Investment Plan

Design & Development

Release

Maintenance

Extended & Premium Support

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Training Services

Standard Courses

› Qt Essentials
› Qt Quick and QML
› Qt Application Engine Development
› Qt Widgets
› Qt Embedded Development
› Qt Mobile Development
› 3D in Qt

› Open Enrollment
  › Scheduled open seat training
  › Provided by certified partners

› Custom Onsite Training
  › High impact training that outlines your specific goals
  › Adjusted to all levels of expertise
Professional Support

Working closely with R&D teams, we help developers address complex technical challenges

Standard Support*
› Support on Qt APIs, functions, methods, and programming techniques
› 48 hours response time
› Bug fix prioritization
*Support granted to Qt license holders

Premium Support
› Dedicated support resource
› 24 hours response time
› 50 or 100 hours at a fixed price
› Support for your specific software solution
› Direct online access

Extended Support
› Enable long term maintenance and Qt upgrade opt-outs
› Longer term support for Qt 5.x releases
› Qt 4.x releases supported directly by the Services team
What you can only get through The Qt Company’s Professional Services?

› **Direct access to Qt R&D** -> Qt Professional Services is the only consulting team in the World that has direct access to Qt R&D, to skills/knowledge of the 100+ Experts working in Qt R&D and all the new features that are still under planning/development

› **Get the best out of the whole Qt ecosystem** -> Qt Professional Services is the only team that has access to the whole ecosystem globally (all the skills, competences, knowledge and resources) and can provide you a project with the best Experts from Qt Professional Services team, service partners, subcontractors, technology partners, freelancers, etc.

› **Support, maintenance and continuous Integration** -> you can have your Qt based product maintained and supported along with the whole Qt product family and choose to have continuous integration service that your software is always integrated to the latest version of Qt and ready for further development and testing

› **Global reach** -> we can help you globally with Qt technology and to implement great products by providing international software development projects, consultation, advisors, workshops and trainings
Q&As

› Ask your questions
Thank you for joining us!

info@qt.io
www.qt.io/contact-us