
Programming with Qt for Automotive Suite

Based on Qt 5.9, created on February 28, 2018

The logo for KDAB, featuring a stylized white lightning bolt icon to the left of the text 'KDAB' in a white, sans-serif font, all contained within a blue rectangular background with a white diagonal cutout at the bottom-left corner.

KDAB

The Qt, OpenGL and C++ Experts

Fundamentals of Qt for Automotive Suite

- The Story of Qt
- The Qt Automotive Suite
- "Hello World" with QtQuick
- Introducing Qt Creator
- Practical Tips for Developers

Qt for Automotive Devices

- Qt for Device Creation
 - Setup Qt for Device Creation
 - Use Boot 2 Qt with QtCreator
 - Customize your Linux image
- Writing a Wayland Compositor
- Qt Virtual Keyboard module
 - Introduction
 - Building Qt Virtual Keyboard module
 - How to use Qt Virtual Keyboard
 - Add new keyboard (language) layout
 - Custom keyboard styles
- Qtlvi - Integrating Vehicle Features
 - Qtlvi - Introduction
 - Qtlvi Architecture
 - Qtlvi Vehicle Functions
 - Extending Qtlvi
 - Qtlvi Related Tooling
- Qt Serial Bus
 - Qt CAN Bus (Controller Area Network)

Application Architecture & Development

- Multi-page applications in QtQuick
 - Simple multi-page application
 - Multi-page application controlled from C++
 - Multi-page application controlled from QML
 - Driving multi-page applications via state-machines
 - Animating page transitions
 - Popup content
- Qt SCXML
 - Introduction to SCXML
 - Qt Build Time Support
 - Dynamic Loading at Runtime
 - SCXML Editor
- Qt Application Manager
 - Application Manager
 - Writing Applications
 - Installing Applications
 - Interacting with the Application Manager

Integrating 2D and 3D Content

- Integrating OpenGL and Qt Quick 2
 - Qt Quick 2 Rendering
 - OpenGL under or over Qt Quick 2
 - Separating Renderers
 - Qt Quick 2 as the Slave
- Custom 2D/3D Qt Quick Items

Supplemental Topics

QML Fundamentals

- Introduction to QtQuick
- QtQuick and C++

Additional QML Topics

- WebEngine
- Animations
- States and Transitions
- Declarative State Machines
- Painting and Effects
- JavaScript in QML
- Drag and Drop

Supplemental Topics

Mixed C++/QML Topics

- Internationalization
- Unit Testing
- Plug-ins
- Platform, device, locale or resolution specific files

C++ Topics

- The Event System
- Customized Drawing
- Resources
- Qt Debugging Aids
- GammaRay
- QPA

Supplemental Topics

Model/View

- Concepts
- Models
- ObjectModel