
Advanced Programming with QML

Based on Qt 5.15, created on March 16, 2023

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 box with a white diagonal cutout at the bottom left corner.

KDAB

The Qt, OpenGL and C++ Experts

- Structure of QML
- Components
- The Loader Element
- Presenting Data
- Recap of Qt Core basics
- Recent QML Additions

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QML Application Architecture

Core topics:

- The Overall Architecture of QML applications
- QML Architecture Tips
- Component Design in QtQuick
- Multi-page applications in QtQuick

Optional topics:

- QML Modules
- QML Plug-ins

Advanced QML & C++ integration

Core topics:

- Advanced Custom Property Types
- QML C++ Singletons
- qmlRegisterType
- Element Registration with Macros

Optional topics:

- QJSValue
- Advanced Component Creation

QML UI techniques

Core topics:

- QtQuick Input Handlers

Optional topics:

- Animations
- Advanced Animations
- Layouts
- QtQuick Controls 2
- Drag and Drop
- Scalable User Interfaces

Rendering

Core topics:

- QQuickPaintedItem

Optional topics:

- The (basic) OpenGL pipeline
- Scene Graph API
- Advanced QML SceneGraph
- Texture Compression
- QML and OpenGL Integration

Tooling & Performance

Core topics:

- GammaRay

Optional topics:

- QML Debugger
- Logging
- QML Profiling
- Testing

QML Model/View

Core topics:

- Concepts
- Models
- C++ Models in QML

Optional topics:

- In-depth Model/View

QML Basics Reference

- Introduction to Qt Quick
- Composing User Interfaces
- User Interaction
- Components and Dynamic Loading
- Presenting Data

Supplemental Topics

QML topics

- Application Scripting
- Declarative State Machines