

Qt Core and Widgets

Training Course

Visit us at <http://www.training.gte-india.com>

Material based on Qt5.2, created on August 18, 2014



Qt Fundamentals

➔ Fundamentals of Qt

➤ The Story of Qt

➤ Developing a Hello World Application

➤ Hello World using Qt Creator

➤ Practical Tips for Developers

Objects and Core Types

➔ Core Classes

- String Handling
- Container Classes
- File Handling
- Practical Tips for Developers

➔ Objects

- Qt's Object Model
- Variants
- Properties

Continued,...

Objects and Core Types

➔ Object Communication

➔ Signals & Slots

➔ Event Handling

Widgets and Designer

➔ Widgets

- Designer Introduction
- Common Widgets
- Layout Management
- Guidelines for Custom Widgets

➔ Dialogs

- Dialogs
- Common Dialogs
- Designer Forms and Code Integration

Applications and Painting

➔ Application Creation

- ➔ Main Windows
- ➔ Designer:
 - Main Windows, Menus and Actions
- ➔ Settings and Resources
- ➔ The System Clipboard
- ➔ Drag and Drop
- ➔ Translation for Developers
- ➔ Deploying Qt Applications

Applications and Painting

➔ Painting and Styling

- ↳ Painting on Widgets
- ↳ Color Handling
- ↳ Painting Operations
- ↳ Style Sheets

Models and Views

➤ Model/View

- ↪ Model/View Concept
- ↪ Showing Simple Data
- ↪ Proxy Models
- ↪ Custom Models

➤ Model/View II

- ↪ Delegates
- ↪ Editing item data
- ↪ Data Widget Mapper
- ↪ Drag and Drop
- ↪ Custom Tree Models

Graphics View

➔ Graphics View

- Using Graphics View Classes
- Coordinate Systems and Transformations
- Creating Custom Items

➔ Graphics View 2

- Widgets in a Scene
- Drag and Drop
- Effects
- Performance Tuning

Other Topics

➔ Animation

- Starting Animation
- Animation Groups
- States and Animations
- Events and Transitions

Qt Additional Modules

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MultiThreaded Programming and Multimedia in Qt

➤ Multithreaded Programming

- ↳ Qt Multithreading
- ↳ Threading Primitives
- ↳ Qt Concurrent

➤ Multimedia Programming

- ↳ Qt Multimedia

Inter-Process Communication

➔ Interprocess Communication

- ➔ QProcess
- ➔ Shared Memory with Qt
- ➔ Network Programming
- ➔ QNetworkAccessManager Request / Reply
- ➔ Bearer Management API
- ➔ TCP/UDP Sockets
- ➔ SSL Sockets
- ➔ DNS and Proxies
- ➔ QtDBus – Qt Bindings to D-Bus
- ➔ QtDBus - Advanced Topics

Other Topics

➔ Extending Qt with Plugins

- ↳ Qt Plugins

- ↳ Plugin Example: Custom Image Formats

➔ Data Processing

- ↳ Basic XML APIs

- ↳ SQL Database API

- ↳ SQL Models

Continued,...

Other Topics

➔ XML Patterns

➔ XPath, XQuery and XSLT

➔ QtXmlPatterns

➔ XML Schema