
Programming with Qt 3D

Based on Qt 6.8, created on February 28, 2026

The logo for AKDAB is displayed within a blue speech bubble shape. It features a stylized white lightning bolt icon to the left of the text 'AKDAB' in a white, bold, sans-serif font.

AKDAB

Trusted Software Excellence

- Feature Set
- Entity Component System? What's that?
- Hello Donut
- Qt 3D ECS Explained

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Drawing with Qt 3D

- Introduction
- Geometries and Materials
- Lights

Input Handling with Qt 3D

- Picking
- Basic Input Handling
- Logical Devices
- Accumulators

Integrations and Helpers

- Dynamic QML Scenes
 - The NodeInstantiator Element
 - The EntityLoader Element
 - The SceneLoader Element
- Starting the Qt 3D Engine
- Painted Textures
- Integrating Qt Quick with Qt 3D

The Qt 3D Scene Graph

- The Simplified Graphics Pipeline
- Shader Programs
 - Introduction to Shader Programs
 - Configurable shader programs
- Geometry and Coordinate Systems
 - How to Specify Geometries?
 - Coordinate Systems
- Texturing
 - Texturing Basics
 - Texturing Geometry
 - Texture Sampling
 - Using Multiple Textures

The Qt 3D Frame Graph

- Viewports and Layers
- Transparency
- Selecting Shaders at Runtime
- Image-Based Techniques
 - Rendering to a Texture
 - Post-Processing Effects
 - Edge Detection
 - Television Effect
 - Gaussian Blur
 - Effect Chains

Animation with Qt 3D

- Key Frame Animations
- Combining Animations

Qt 3D with Qt 6

- API Changes
- Renderer Changes

Optional Topics

- Instanced Rendering
- Procedural Texturing
- Capturing the Rendering
- Level of Detail
- Displaying Text