Introduction to Modern C++

Created on March 16, 2023



The Qt, OpenGL and C++ Experts

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C++ Fundamentals

- Control flow
 - Control flow
 - Selection statements
 - Iteration statements
 - Jump statements
- Data types
 - Fundamental types
 - Derivative types
- Functions
 - Functions in C++
 - Function overloading
- Objects
 - Object Declarations
 - Object Lifetime

Introduction to C++

- A whirlwind tour of C++
- What is C++?
 - Hello, world!

User-defined Types

- Classes
 - Introduction to Classes
 - Construction, destruction and assignment
 - Static members
 - Inheritance and runtime polymorphism

C++ Standard Library

- Introduction
- Containers
 - Introduction
 - std::vector
 - std::map
 - std::unordered_map
- Iterators
- Algorithms

Optional topics

- Exceptions
- Lambdas
- Templates
 - Introduction
 - Templates
- Rvalue References
- Namespaces
- Operator Overloading
- Static Lifetime
- User declared types
 - Enumerations
 - Type aliases
- Smart Pointers
- The C++ Compilation Model