C++ Quick Syntax Reference

Mikael Olsson

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ISBN-13 (pbk): 978-1-4302-6277-0

ISBN-13 (electronic): 978-1-4302-6276-7

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About the Author

Mikael Olsson is a professional web entrepreneur, programmer, and author. He works for an R&D company in Finland where he specializes in software development. In his spare time he writes books and creates websites that summarize various fields of interest. The books he writes are focused on teaching their subject in the most efficient way possible, by explaining only what is relevant and practical without any unnecessary repetition or theory.

About the Technical Reviewer

Michael Thomas has worked in software development for over 20 years as an individual contributor, team lead, program manager, and Vice President of Engineering. Michael has over 10 years experience working with mobile devices. His current focus is in the medical sector using mobile devices to accelerate information transfer between patients and health care providers.

Introduction

C++ is a general purpose multi-paradigm programming language. It is an extension of the C language and as such most C code can easily be made to compile in C++. Some of the major additions to C include object-orientated programming, operator overloading, multiple inheritance and exception handling.

The development of C++ began in 1979, seven years after C first made its appearance. Despite being what many consider legacy languages, C and C++ are still the most widely used languages in the software industry. They are used in creating everything from operating systems and embedded software to desktop applications, games and so on.

Compared with newer languages, C++ applications are often more complex and take longer to develop. In return, C++ gives the programmer a tremendous amount of control in that the language provides both high-level and low-level abstractions from the hardware. It is also designed to give the programmer a lot of freedom by supporting many different programming styles or paradigms, such as procedural, object-oriented or generic programming.

The compiler used in this book is the Microsoft C++ compiler. Some other common ones include Borland, Intel and GNU C++ compilers. Despite C++ being standardized in 1998, these compilers still support slightly different features. Therefore, when something applies specifically to the Microsoft compiler this will be pointed out.