Record Nr. UNINA9910678164503321

Autore Gregoire Marc

Titolo Professional C++ / / Marc Gregoire

Pubbl/distr/stampa Indianapolis, IN:,: Wrox,, 2018

ISBN 1-119-69545-7

1-119-69550-3

Descrizione fisica 1 online resource (1176 pages) : illustrations

Disciplina 005.133

Soggetti C++ (Computer program language)

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto

Introduction xlvii Part I: Introduction to Professional C++ Chapter 1: A Crash Course In C++ And The Standard Library 3 Chapter 2: Working With Strings And String Views 87 Chapter 3: Coding With Style 111 Part II: Professional C++ Software Design Chapter 4: Designing Professional C++ Programs 137 Chapter 5: Designing With Objects 169 Chapter 6: Designing For Reuse 187 Part III: C++ Coding the Professional Way Chapter 7: Memory Management 211 Chapter 8: Gaining Proficiency With Classes And Objects 249 Chapter 9: Mastering Classes and Objects 283 Chapter 10: Discovering Inheritance Techniques 337 Chapter 11: Odds and Ends 397 Chapter 12: Writing Generic Code With Templates 421 Chapter 13: Demystifying C++ I/O 465 Chapter 14: Handling Errors 495 Chapter 15: Overloading C++ Operators 535 Chapter 16: Overview of The C++ Standard Library 573 Chapter 17: Understanding Iterators and The Ranges Library 603 Chapter 18: Standard Library Containers 627 Chapter 19: Function Pointers, Function Objects, And Lambda Expressions 699 Chapter 20: Mastering Standard Library Algorithms 725 Chapter 21: String Localization and Regular Expressions 763 Chapter 22: Date and Time Utilities 793 Chapter 23: Random Number Facilities 809 Chapter 24: Additional Library Utilities 821 Part IV: Mastering Advanced Features of C++ Chapter 25: Customizing and Extending The Standard Library 833 Chapter 26: Advanced Templates 877 Chapter 27: Multithreaded Programming With C++ 915 Part V: C++ Software Engineering Chapter 28: Maximizing Software Engineering Methods 971 Chapter 29: Writing

Efficient C++ 993 Chapter 30: Becoming Adept at Testing 1021 Chapter 31: Conquering Debugging 1045 Chapter 32: Incorporating Design Techniques and Frameworks 1083 Chapter 33: Applying Design Patterns 1105 Chapter 34: Developing Cross-Platform and Crosslanguage Applications 1137 Part VI: Appendices Appendix A: C++ Interviews 1165 Appendix B: Annotated Bibliography 1191 Appendix C: Standard Library Header Files 1203 Appendix D: Introduction to UML 1213 Index 1219.

Sommario/riassunto

Get up to date quickly on the new changes coming with C++17 Professional C++ is the advanced manual for C++ programming. Designed to help experienced developers get more out of the latest release, this book skims over the basics and dives right in to exploiting the full capabilities of C++17. Each feature is explained by example, each including actual code snippets that you can plug into your own applications. Case studies include extensive, working code that has been tested on Windows and Linux, and the author's expert tips, tricks. and workarounds can dramatically enhance your workflow. Even many experienced developers have never fully explored the boundaries of the language's capabilities; this book reveals the advanced features you never knew about, and drills down to show you how to turn these features into real-world solutions. The C++17 release includes changes that impact the way you work with C++; this new fourth edition covers them all, including nested namespaces, structured bindings, string_view, template argument deduction for constructors, parallel algorithms, generalized sum algorithms, Boyer-Moore string searching, string conversion primitives, a filesystem API, clamping values, optional values, the variant type, the any type, and more. Clear explanations and professional-level depth make this book an invaluable resource for any professional needing to get up to date quickly. Maximize C++ capabilities with effective design solutions Master little-known elements and learn what to avoid Adopt new workarounds and testing/debugging best practices Utilize real-world program segments in your own applications C++ is notoriously complex, and whether you use it for gaming or business, maximizing its functionality means keeping up to date with the latest changes. Whether these changes enhance your work or make it harder depends on how well-versed you are in the newest C++ features. Professional C++ gets you up to date quickly, and provides the answers you need for everyday solutions.