C++ Training

# Literature

Klaus Iglberger

#### Content

- 1. C++ Primers and References
- 2. Advanced C++ Programming
- 3. C++ Software Design
- 4. Refactoring and Testing
- 5. Performance Optimization
- 6. Professional Programming

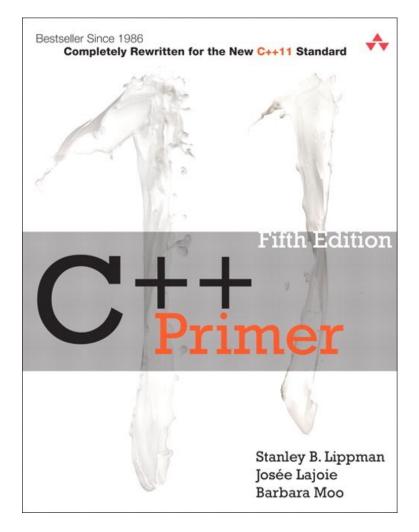
#### 1. C++ Primers and References

#### C++ Primer



- Very well written introduction to C++
- Completely rewritten for C++11
- Proper introduction of C++ concepts and idioms

• ISBN-10: 9780321714114

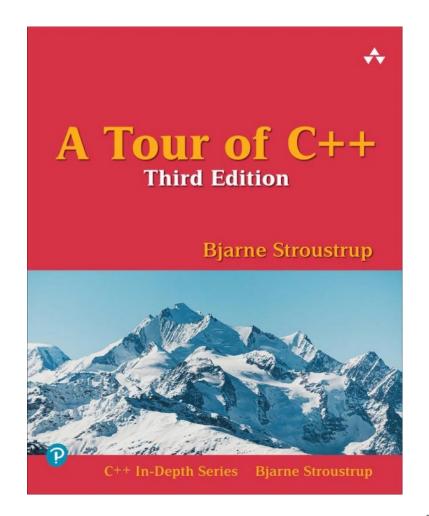


#### A Tour of C++



- Great overview of C++20
- Excellent opportunity to upgrade your C++ knowledge (only 299 pages)
- From the inventor of C++ himself

• ISBN-10: 0136816487

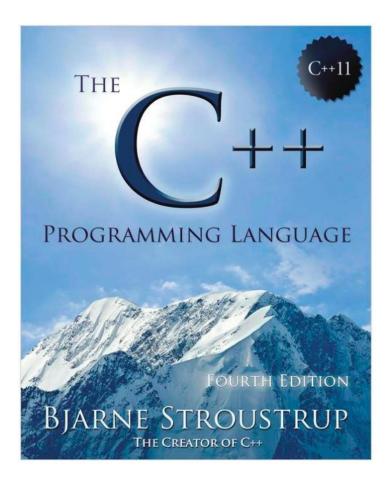


# The C++ Programming Language



- C++11 introduction by the inventor of C++ himself
- Contains all details in a terse form
- More suited as a reference for the advanced and professional programmer

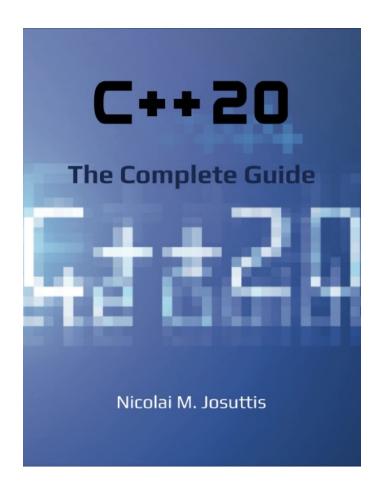
• ISBN-10: 0321958322



## C++20 - The Complete Guide



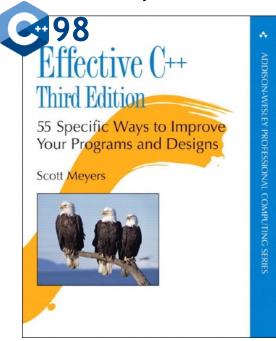
- A complete overview of C++20, introduced by an expert
- Contains all the features of C++20, including code examples
- Best introduction to C++20 polymorphic memory resources
- Detailed introduction to C++20 ranges
- ISBN-10: 396730020X
- ISBN-13: 978-3967300208



# 2. Advanced C++ Programming

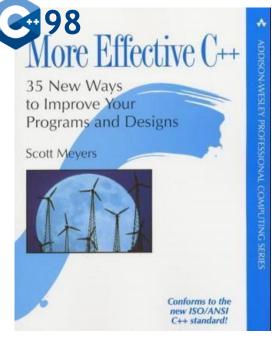
#### Effective C++

- The classic book on better software design with C++
- Many language details, good explanations and examples
- "Must-read" for every serious C++ programmer
- Basis for a special set of Lint warnings



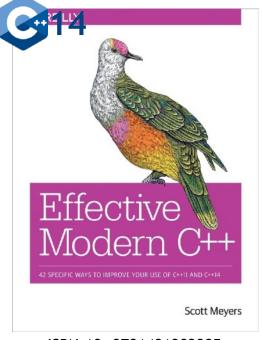
ISBN-10: 0321334876

• ISBN-13: 978-0321334879



• ISBN-10: 020163371X

ISBN-13: 978-0201633719



• ISBN-10: 9781491903995

#### Effective STL



- 2<sup>nd</sup> successor of Effective C++
- Introduces proper use of the S(T)L
- Also a "must-read" for every C++ programmer
- ISBN-10: 0201749629
- ISBN-13: 978-0201749625

# Effective STL

50 Specific Ways to Improve Your Use of the Standard Template Library

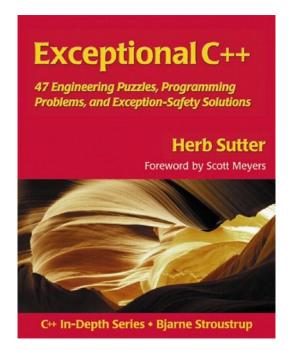
Scott Meyers



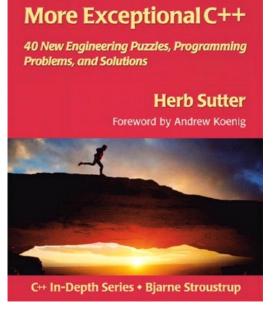
## Exceptional C++



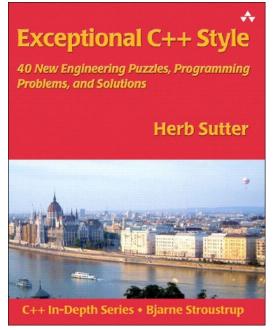
- Highly informative and entertaining
- Same item-based structure as Effective C++
- "Must-read" for every serious C++ programmer



ISBN-10: 0201615622
ISBN-13: 978-0201615623



ISBN-10: 020170434XISBN-13: 978-0201704341



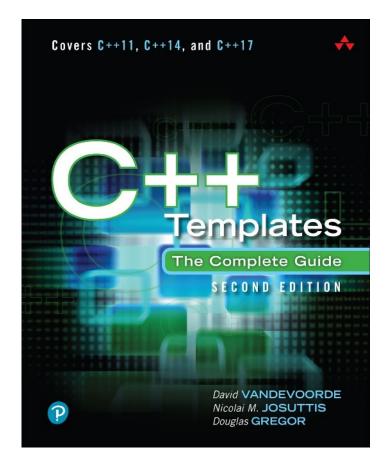
• ISBN-10: 0201760428

#### C++ Templates - The Complete Guide



- The book on C++ templates
- Contains all details about all aspects of template programming
- Highly recommended as reference

ISBN-10: 0321714121

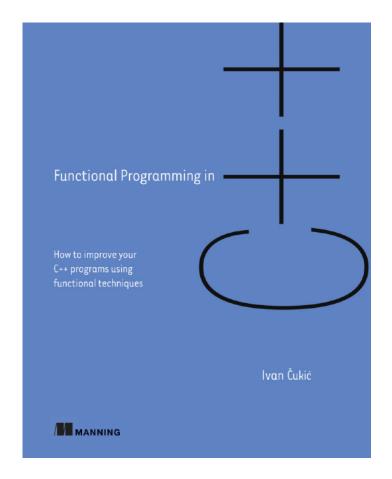


#### Functional Programming in C++



- The best book on function programming in C++
- Very good introduction to functional programming concepts
- Very recommended

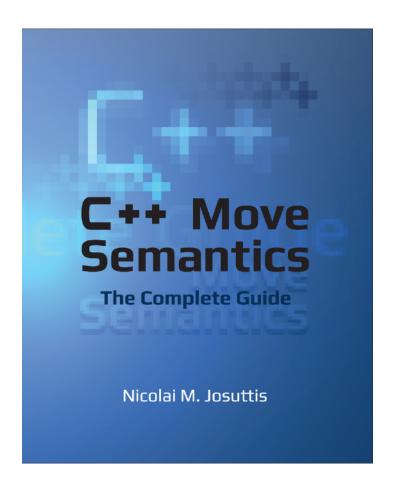
• ISBN-10: 1617293814



# C++ Move Semantics - The Complete Guide 17



- Everything about C++ move semantics
- From the basics to advanced problems and questions
- ISBN-10: 3967309002
- ISBN-13: 978-3967309003

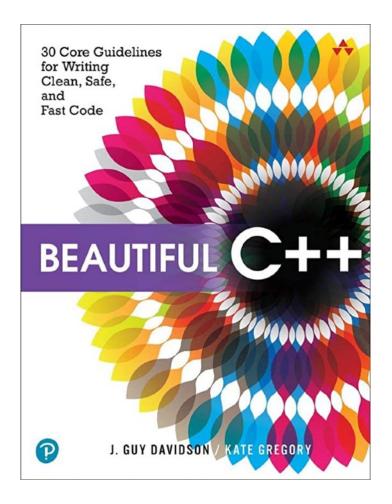


#### Beautiful C++



- Good explanation of 30 of the most relevant Core Guidelines
- Examples from real world experience
- Entertaining writing style

ISBN-10: 0137647840



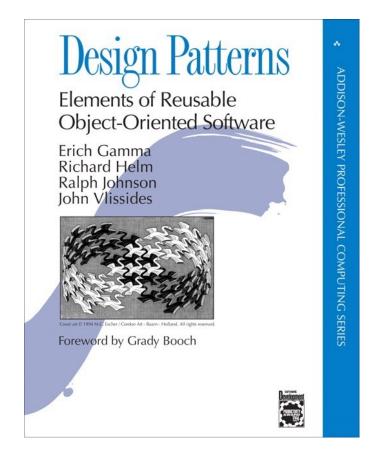
## 3. C++ Software Design

#### Design Patterns



- The "Gang of Four" (GoF) book
- The good old reference on classical design patterns
- Highly recommended

ISBN-10: 0201633612

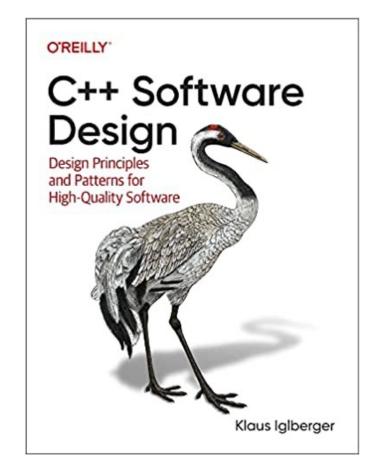


#### C++ Software Design



- The best book on software design with C++ (completely objectively, really!)
- Introduction to classic and modern C++ design patterns
- Covers implementation details
- Published in September 2022

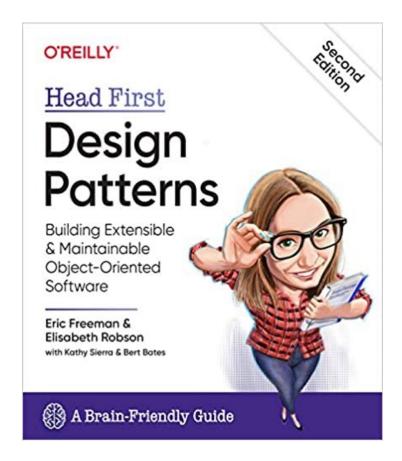




#### Head First Design Patterns (2nd Edition)

- One of the most instructive books on classic design patterns
- Recommended to get an impression on the OO implementation of patterns

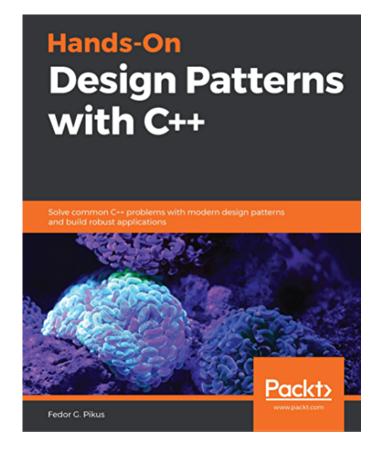
• ISBN-10: 149207800X



#### Hands-On Design Patterns with C++



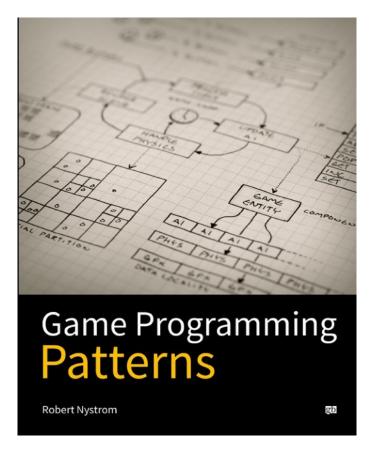
- Technically up-to-date introduction to many C++ design patterns
- A little implementation heavy
- ISBN-10: 1788832566
- ISBN-13: 978-1788832564



#### Game Programming Patterns

- Focus on code organization and decoupling
- Good selection of patterns
- Suited for all C++ developers, not just game developers

ISBN-10: 0990582906

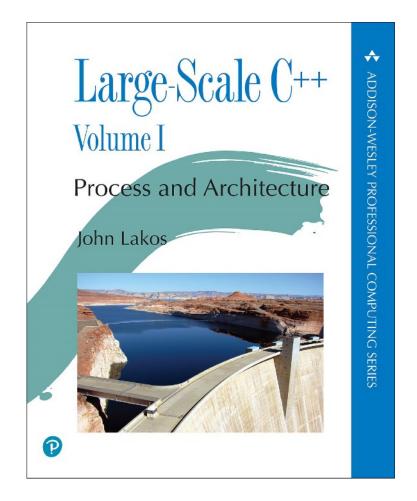


## Large-Scale C++ (Volume I)



- Complete overview on software design and architecture
- Lots of important guidelines
- Very valuable for every C++ developer

ISBN-10: 0201717069

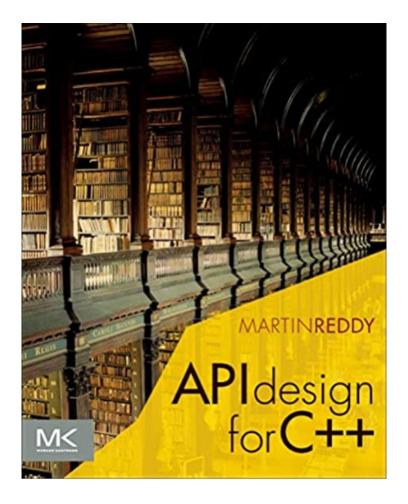


## API Design for C++



- Good overview of different aspects of API design
- From implementation details to design patterns

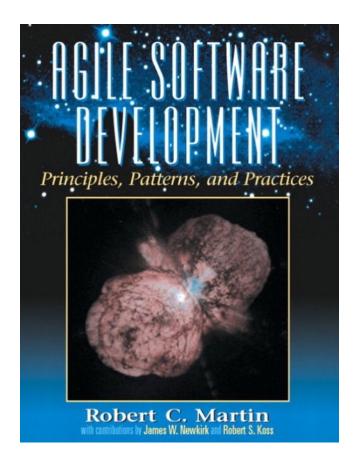
• ISBN-10: 0123850037



#### Agile Software Developement

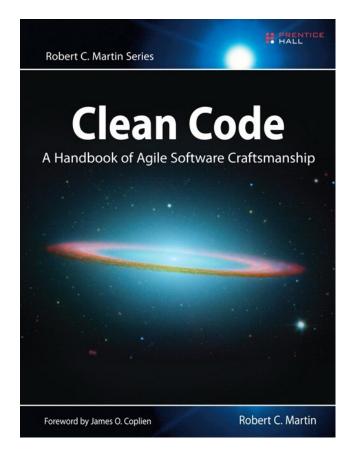
- One of the best book on the principles of agile software development
- Emphasis on design for change
- Very well written chapters on the basic principles of OO software design
- Highly recommended

ISBN-10: 1292025948



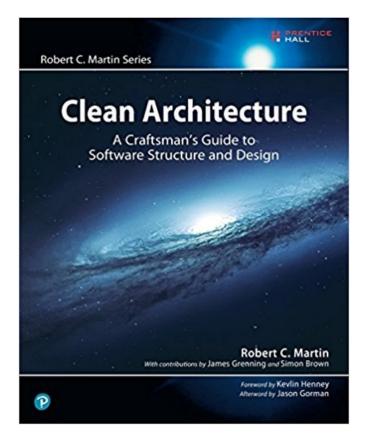
#### Clean Code

- Very well written book on all aspects of "Clean Code"
- Must-read for every professional C++ programmer
- ISBN-10: 9780132350884
- ISBN-13: 978-0132350884



#### Clean Architecture

- Very good overview of software design/architecture
- Very recommended for every software developer
- ISBN-10: 0134494164
- ISBN-13: 978-0134494166

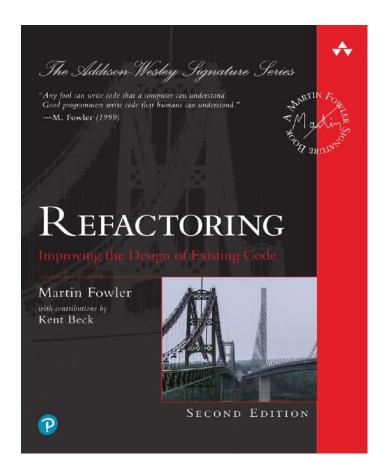


# 4. Refactoring and Testing

## Refactoring

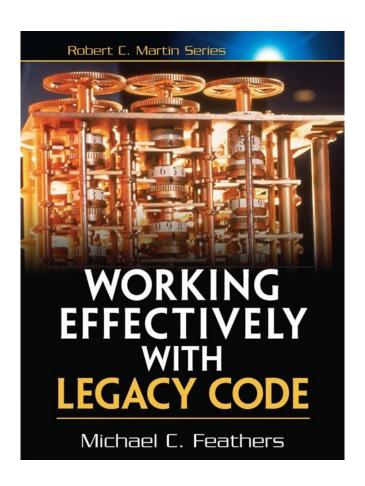
- Best available reference on refactoring techniques
- Well structured and written
- Recommended as reference for refactoring efforts

• ISBN-10: 0134757599



#### Working Effectively with Legacy Code

- Brilliant definition of legacy code
- Best available reference on how to work with legacy code
- Well suited structure
- Recommended for nearly all companies ;-)
- ISBN-10: 0131177052
- ISBN-13: 978-0131177055



# Modern C++ Programming with Test-Driven Development 511

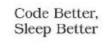
- Very thorough introduction to TDD
- Good examples
- Contains chapters on multithreaded tests
- Must-read for all companies ;-)

ISBN-10: 1937785483

ISBN-13: 978-1937785482



Modern C++ Programming with Test-Driven Development





Foreword by Robert C. Martin (Uncle Bob) Edited by Michael Swaine

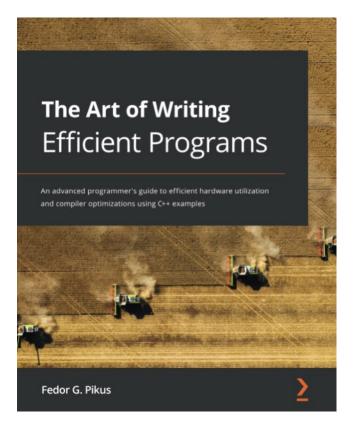
Jeff Langr

# 5. Performance Optimization

## The Art of Writing Efficient Programs

- Lots of advise on all aspects of performance
- Practical advice on how to benchmark performance

• ISBN-10: 1800208111

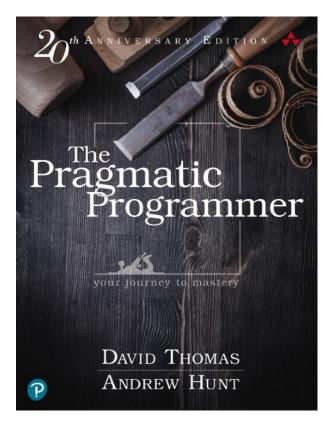


# 6. Professional Programming

#### The Pragmatic Programmer

- Expert advise on all aspects of every day software development
- Recommended read for every serious software programmer

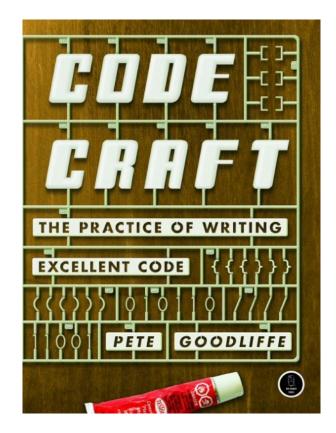
• ISBN-10: 0135957052



#### Code Craft: The Practice of Writing Excellent Code

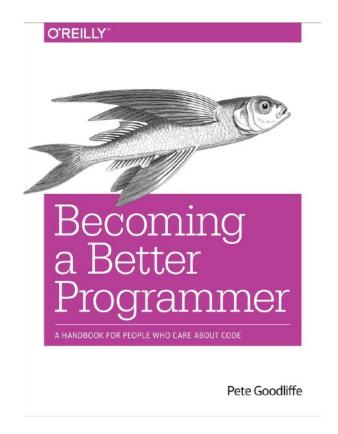
- Practical advise for the daily work in the "software factory"
- Recommended read for every software developer

• ISBN-10: 1593271190



#### Becoming a Better Programmer

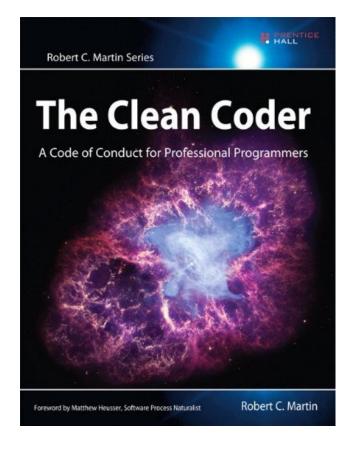
- A handbook for people who care about code
- Addresses all the essential aspects of software development
- ISBN-10: 9781491905531
- ISBN-13: 978-1491905531



#### The Clean Coder

- Successor of Clean Code
- Focus on the programmer himself
- Recommended for every aspiring professional

• ISBN-10: 0137081073



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Xing: xing.com/profile/Klaus\_Iglberger/cv