

C++ Training

# Literature

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Klaus Iglberger

# Content

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

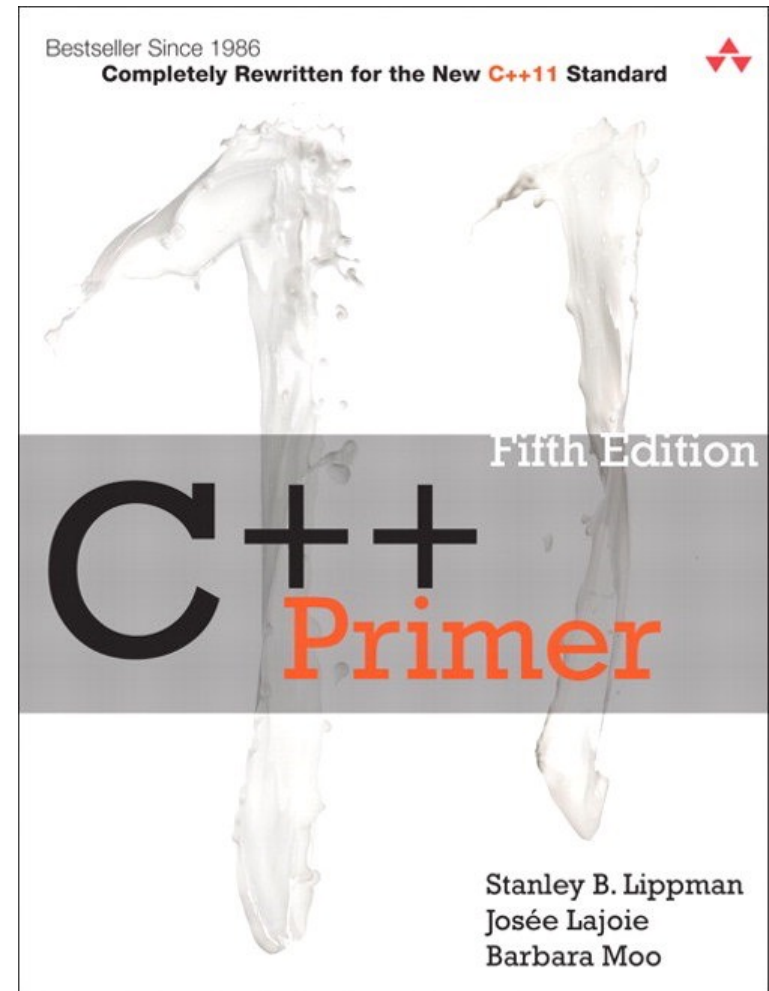
# 1. C++ Primers and References

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# C++ Primer

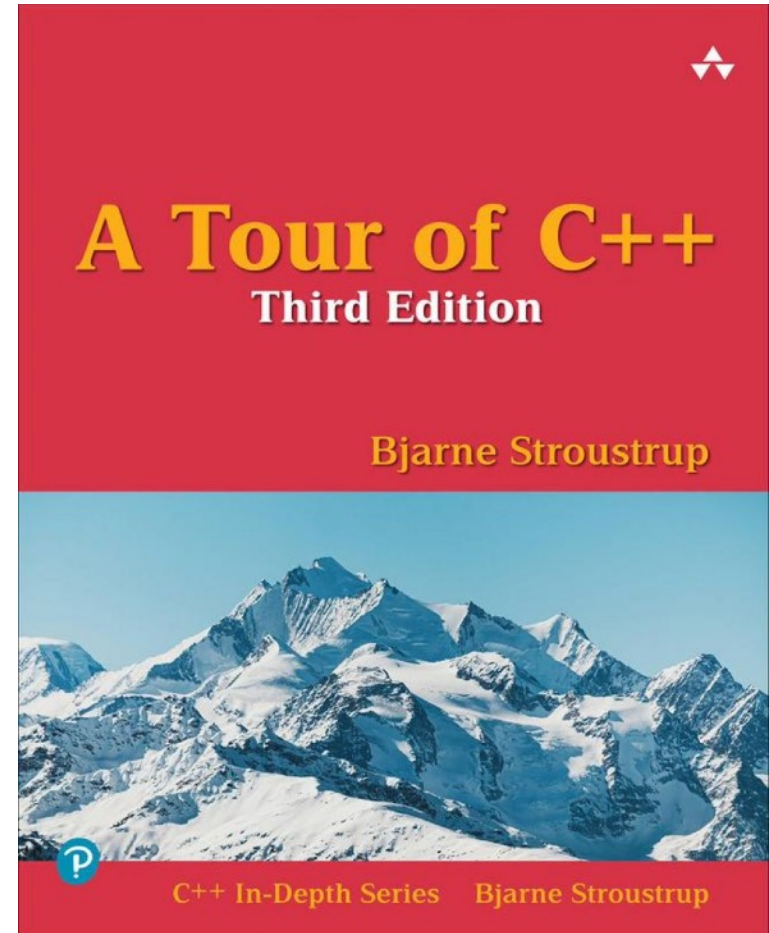
- Very well written introduction to C++
- Completely rewritten for C++11
- Proper introduction of C++ concepts and idioms
- ISBN-10: 9780321714114
- ISBN-13: 978-0321714114





# A Tour of C++

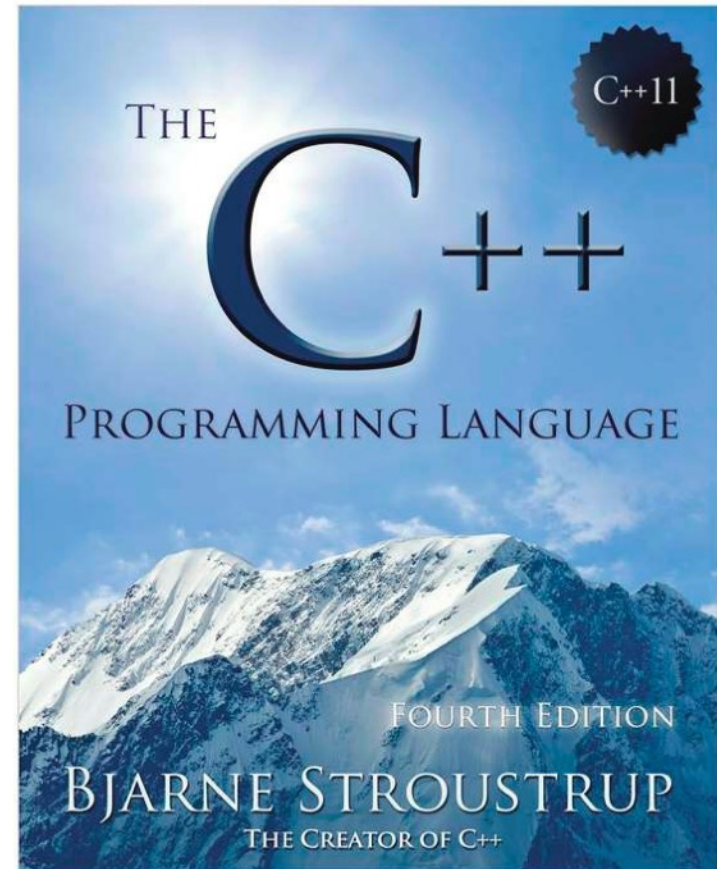
- Great overview of C++20
- Excellent opportunity to upgrade your C++ knowledge (only 299 pages)
- From the inventor of C++ himself
- ISBN-10: 0136816487
- ISBN-13: 978-0136816485





# The C++ Programming Language

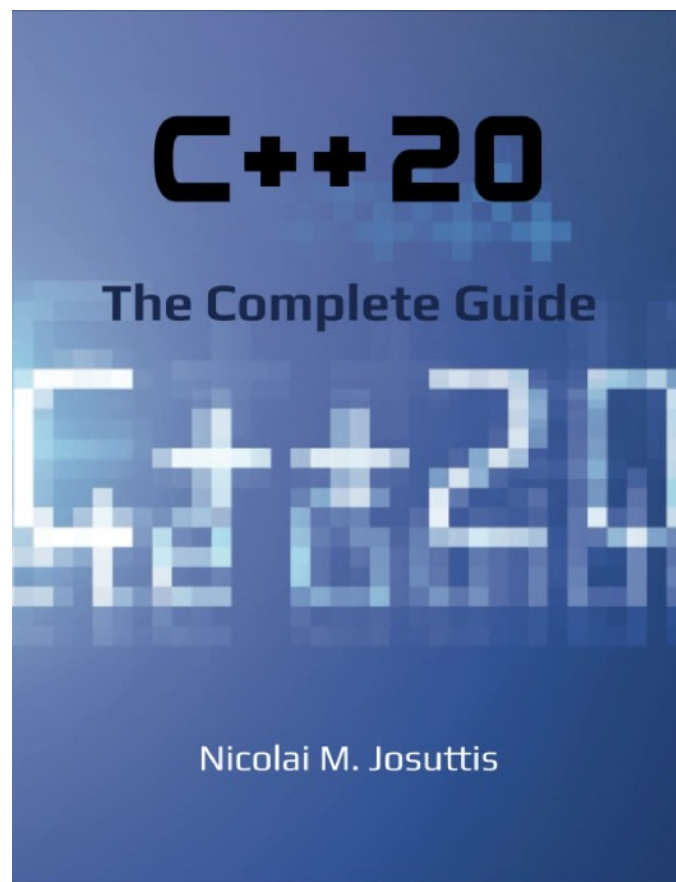
- C++11 introduction by the inventor of C++ himself
- Contains all details in a terse form
- More suited as a reference for the advanced and professional programmer
- ISBN-10: 0321958322
- ISBN-13: 978-0321958327





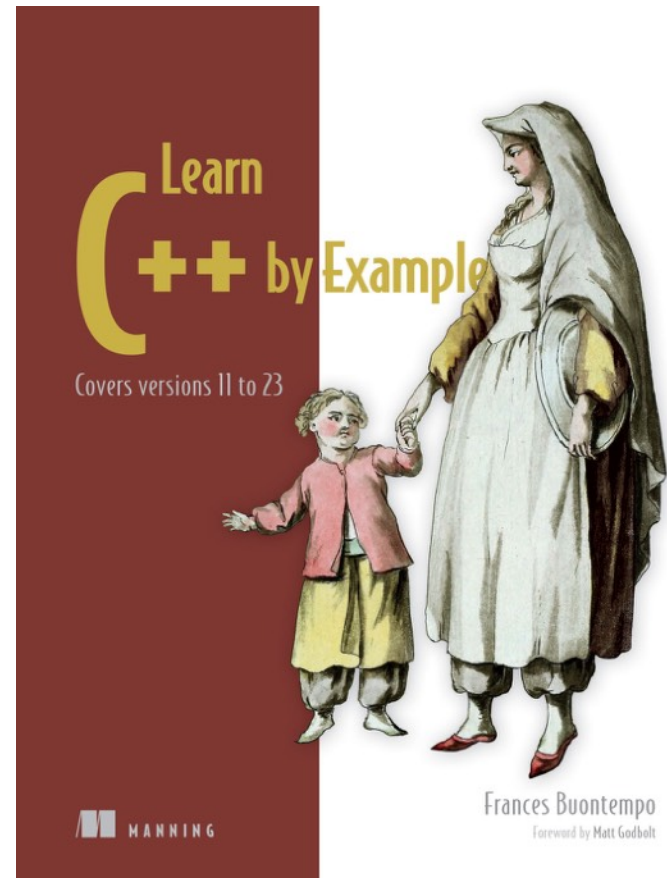
# C++20 - The Complete Guide

- 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



# Learn C++ by Example

- An update for C++ programmers, covering C++11 to 23
- Example-based introduction of features
- Motivating and entertaining approach to learn C++
- ISBN-10: 1633438333
- ISBN-13: 978-1633438330



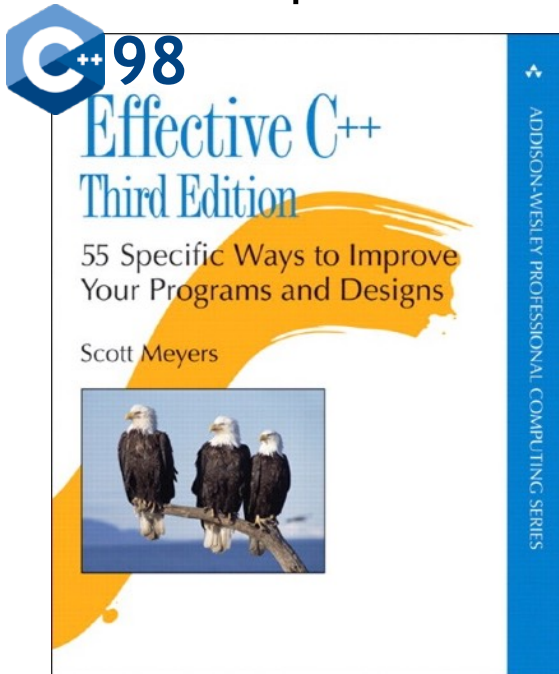


## 2. Advanced C++ Programming

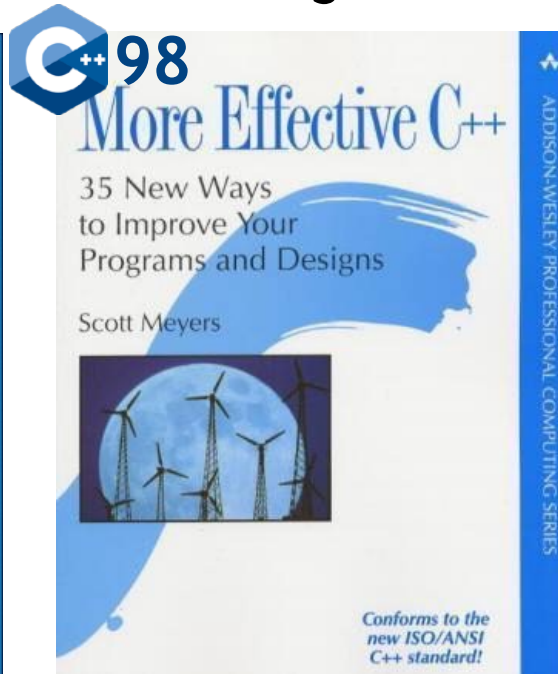
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# Effective C++

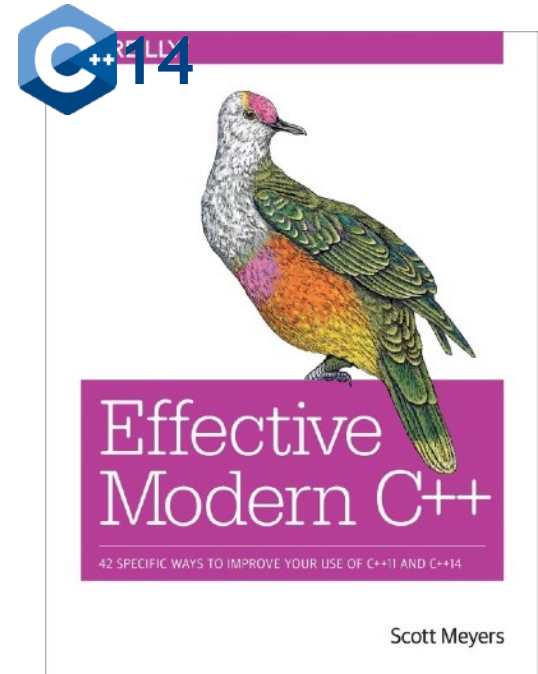
- *The* classic book on better software design with C++
- Many language details, good explanations and examples
- “Must-read” for every serious C++ programmer
- Basis for a special set of Lint warnings



- ISBN-10: 0321334876
- ISBN-13: 978-0321334879



- ISBN-10: 020163371X
- ISBN-13: 978-0201633719



- ISBN-10: 9781491903995
- ISBN-13: 978-1491903995

# 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

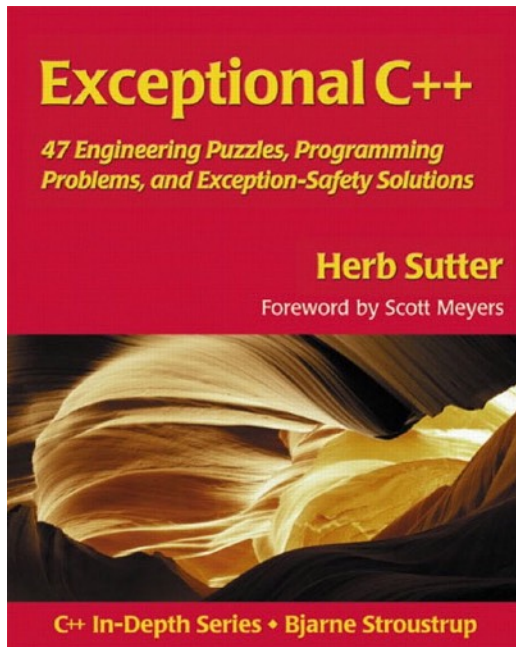


ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES

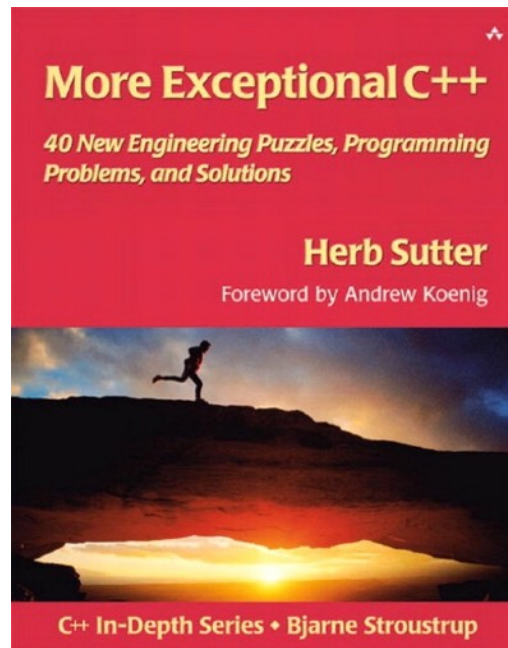


# Exceptional C++

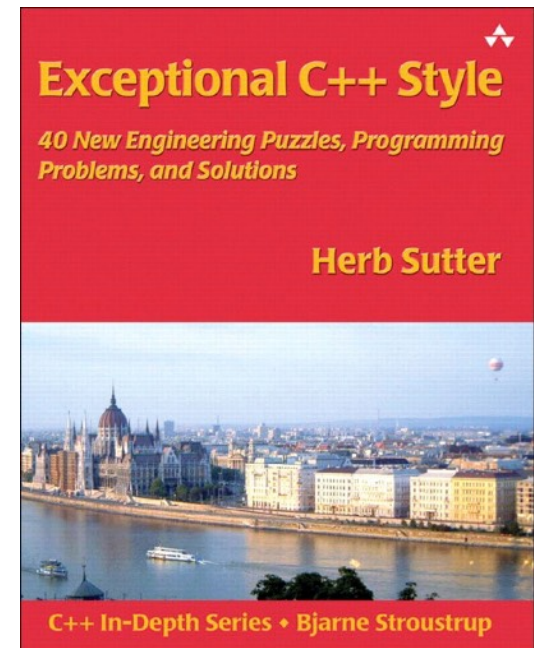
- Highly informative and entertaining
- Same item-based structure as Effective C++
- “Must-read” for every serious C++ programmer



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



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

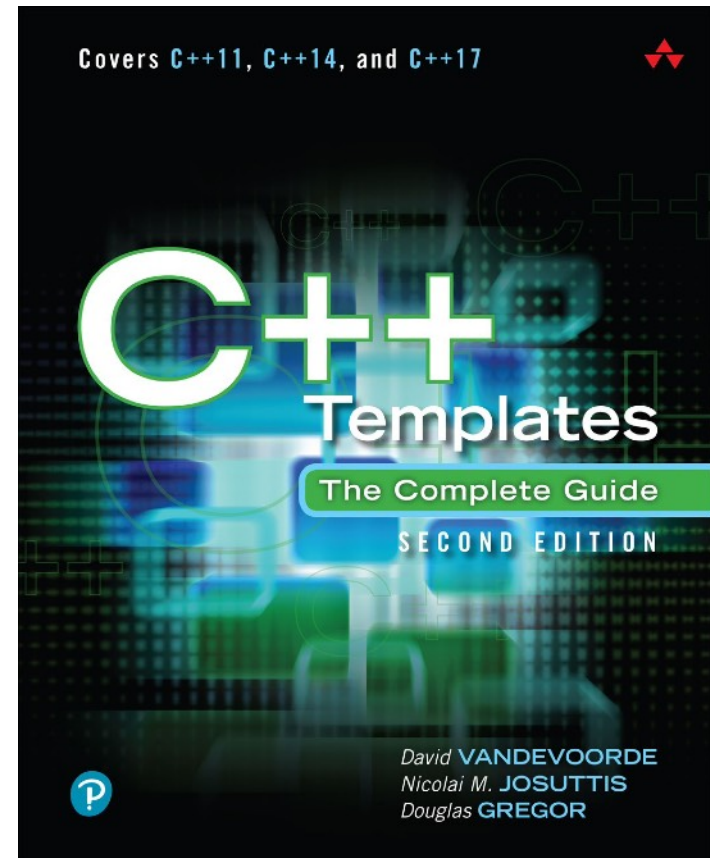


- ISBN-10: 0201760428
- ISBN-13: 978-0201760422

# C++ Templates - The Complete Guide



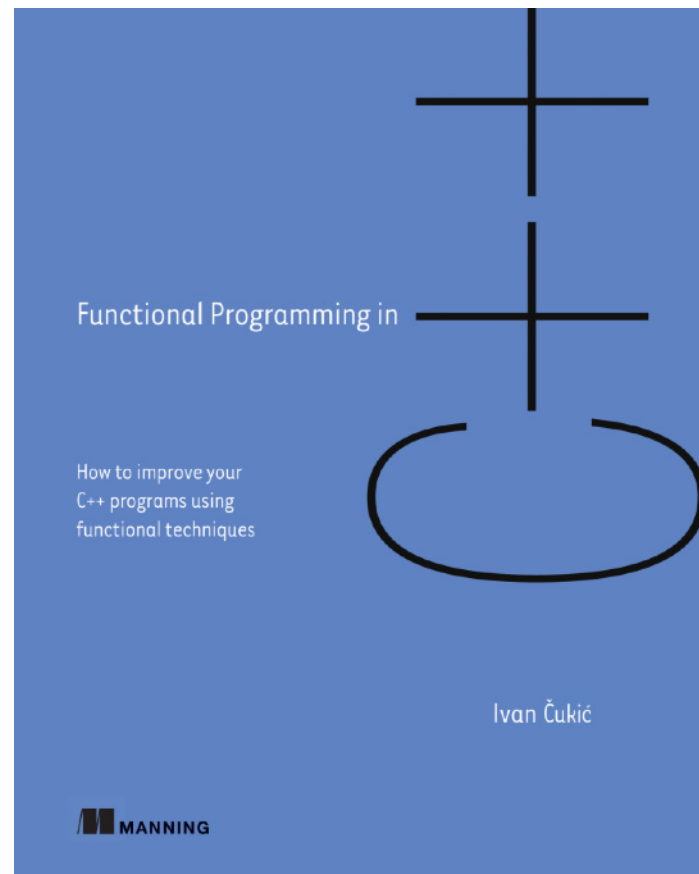
- *The* book on C++ templates
- Contains all details about all aspects of template programming
- Highly recommended as reference
- ISBN-10: 0321714121
- ISBN-13: 978-0321714121





# Functional Programming in C++

- *The* best book on function programming in C++
- Very good introduction to functional programming concepts
- Very recommended
- ISBN-10: 1617293814
- ISBN-13: 978-1617293818



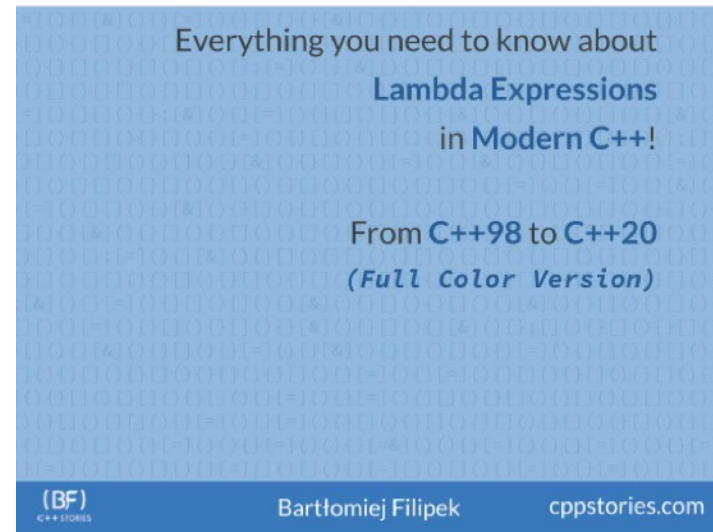




# C++ Lambda Story

- Everything about arrays (and related topics)
- Covers both basics and advanced topics
- ISBN-13: 979-8590126835

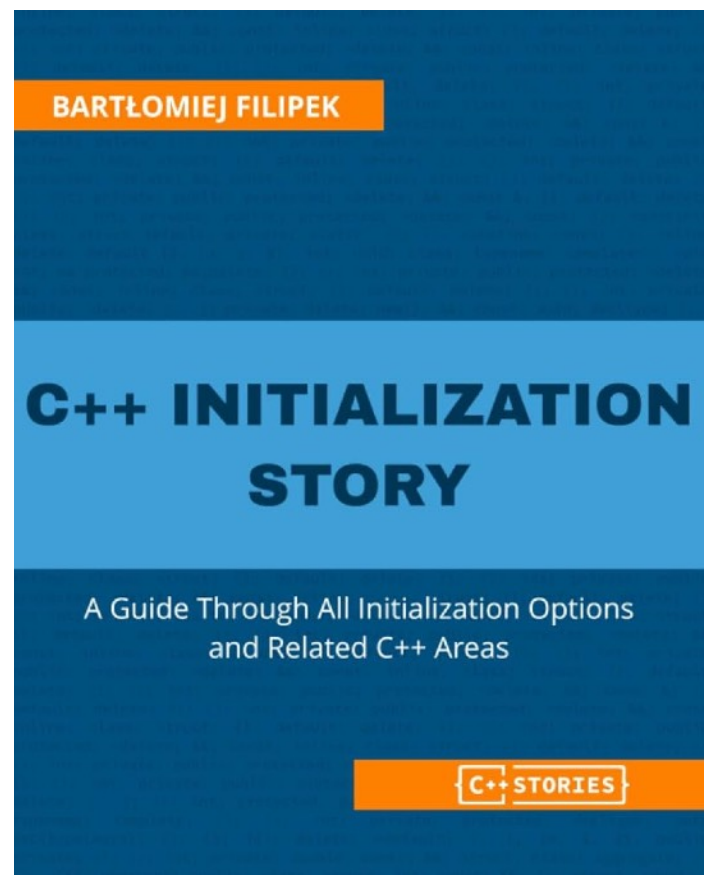
## C++ Lambda Story





# C++ Initialization Story

- Everything about initialization (and related topics)
- Covers both basics and advanced topics
- Good, but simple code examples
- ISBN-13: 979-8371581426

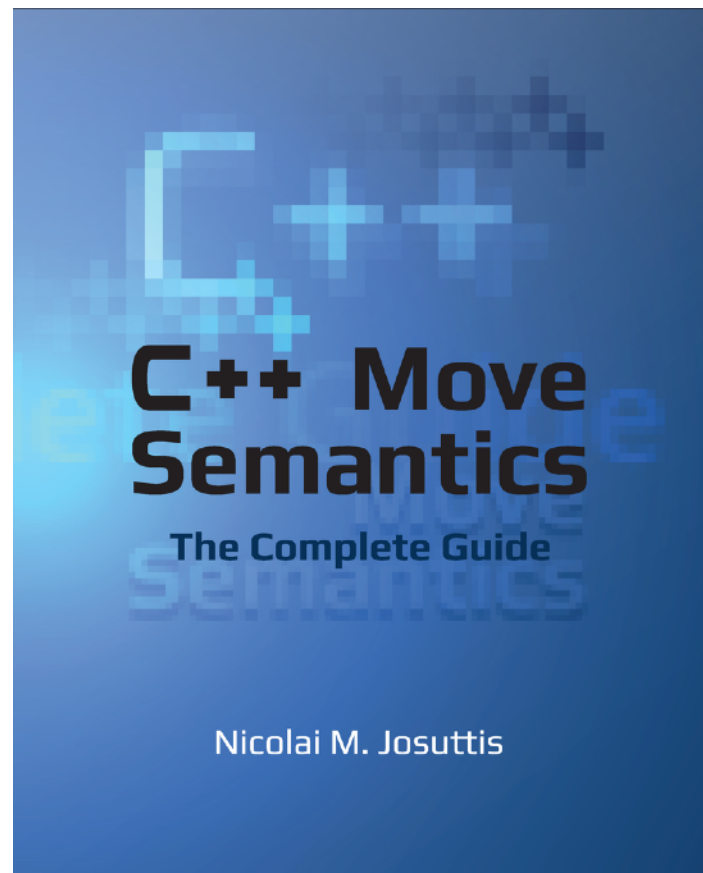




# C++ Move Semantics - The Complete Guide



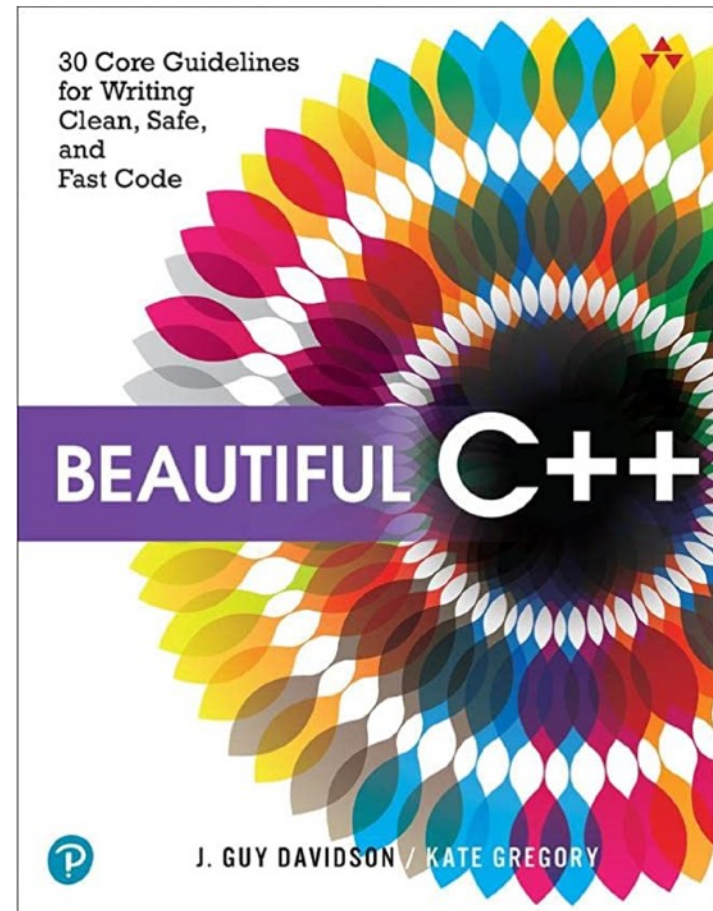
- Everything about C++ move semantics
- From the basics to advanced problems and questions
- ISBN-10: 3967309002
- ISBN-13: 978-3967309003





# Beautiful C++

- Good explanation of 30 of the most relevant Core Guidelines
- Examples from real world experience
- Entertaining writing style
- ISBN-10: 0137647840
- ISBN-13: 978-0137647842

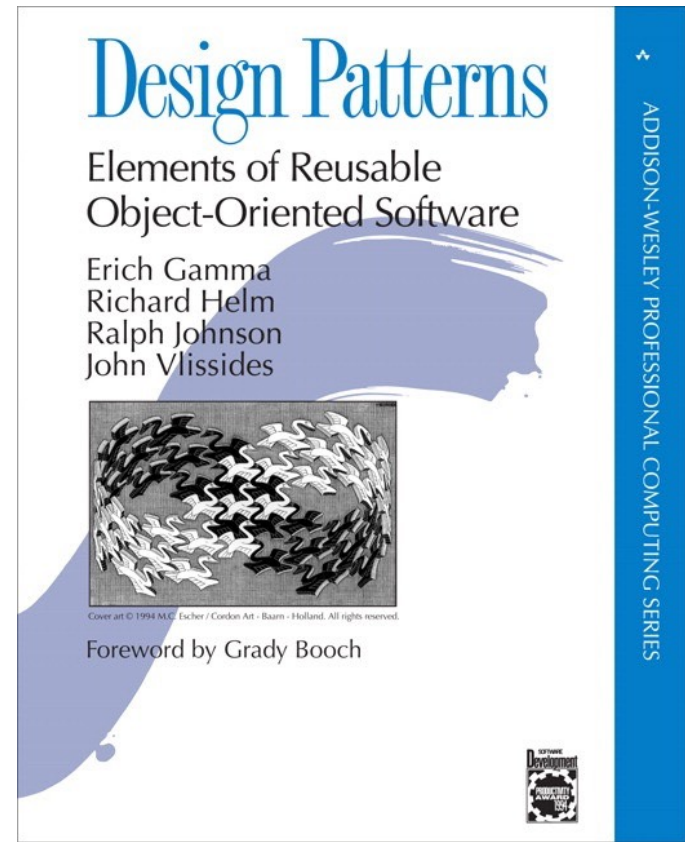


## 3. C++ Software Design

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# Design Patterns

- The “Gang of Four” (GoF) book
- *The* good old reference on classical design patterns
- Highly recommended
- ISBN-10: 0201633612
- ISBN-13: 978-0201633610

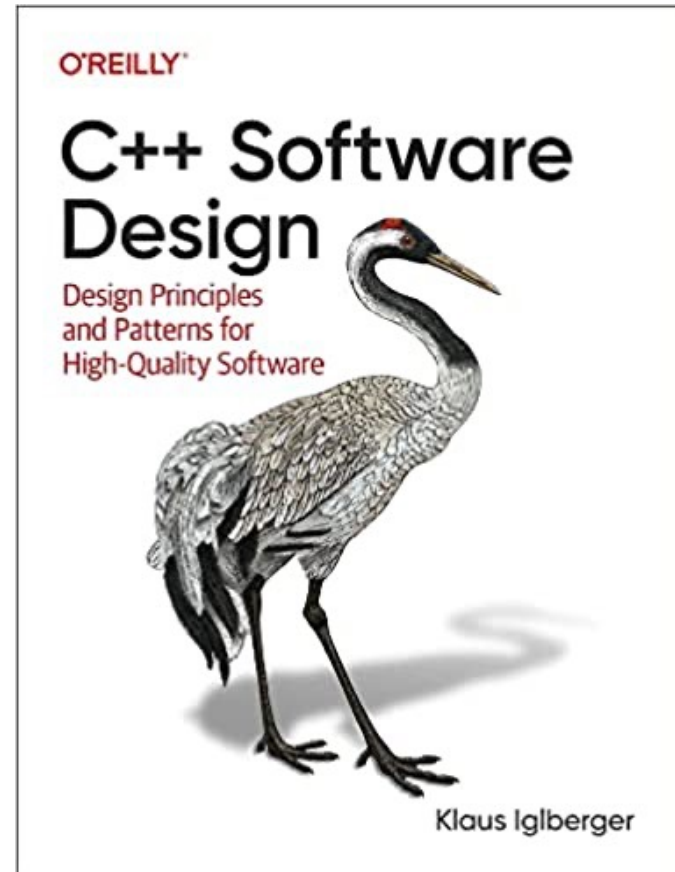


# C++ Software Design

- 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



oreilly.com



# Head First Design Patterns (2nd Edition)

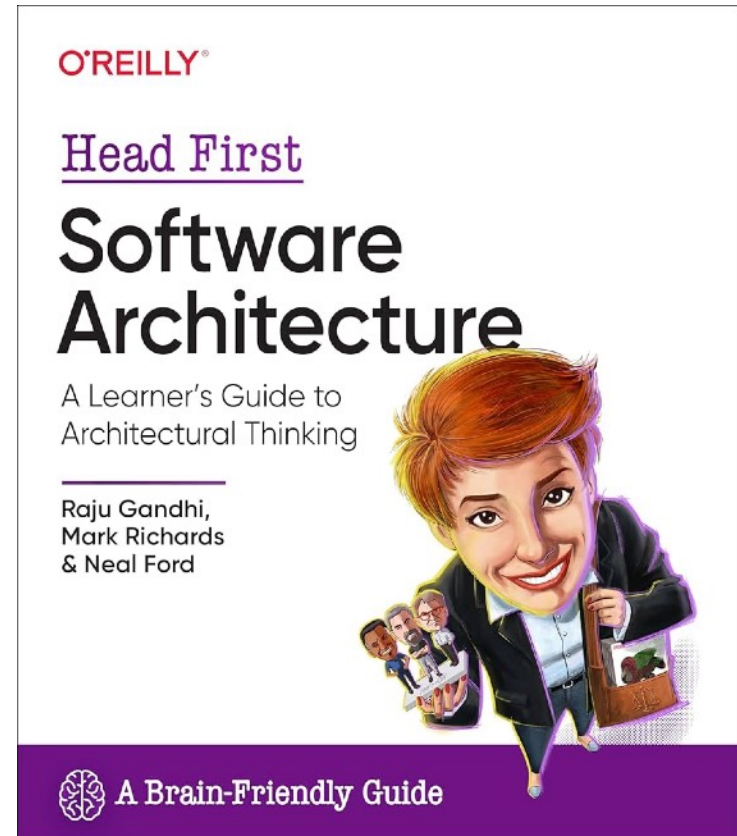
- One of the most instructive books on classic design patterns
- Recommended to get an impression on the OO implementation of patterns
- ISBN-10: 149207800X
- ISBN-13: 978-1492078005



# Head First Software Architecture

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- Very good general introduction to software architecture
- Simple, easy to understand, but also entertaining
- ISBN-10: 1098134354
- ISBN-13: 978-1098134358



# Hands-On Design Patterns with C++



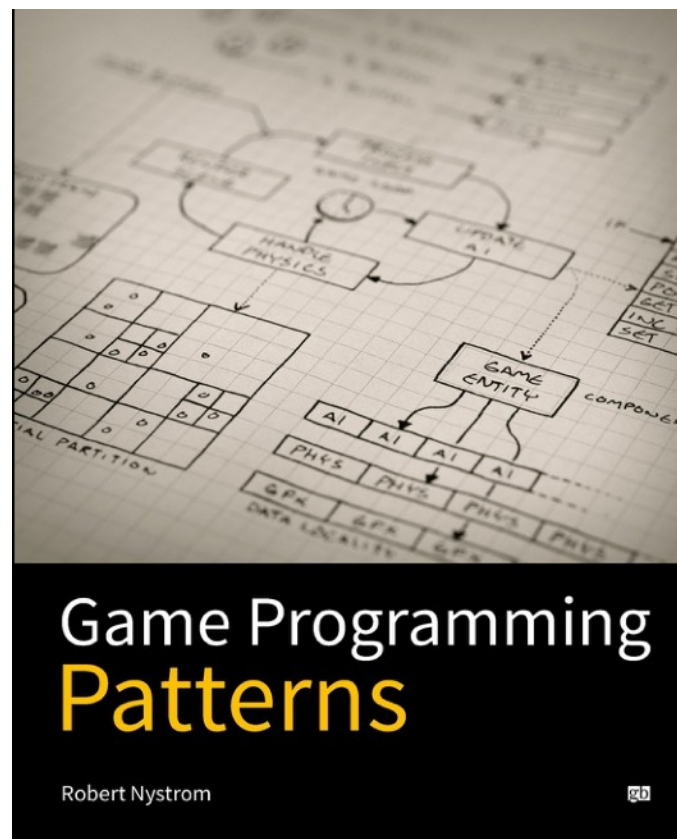
- Technically up-to-date introduction to many C++ design patterns
- A little implementation heavy
- ISBN-10: 1804611557
- ISBN-13: 978-1804611555





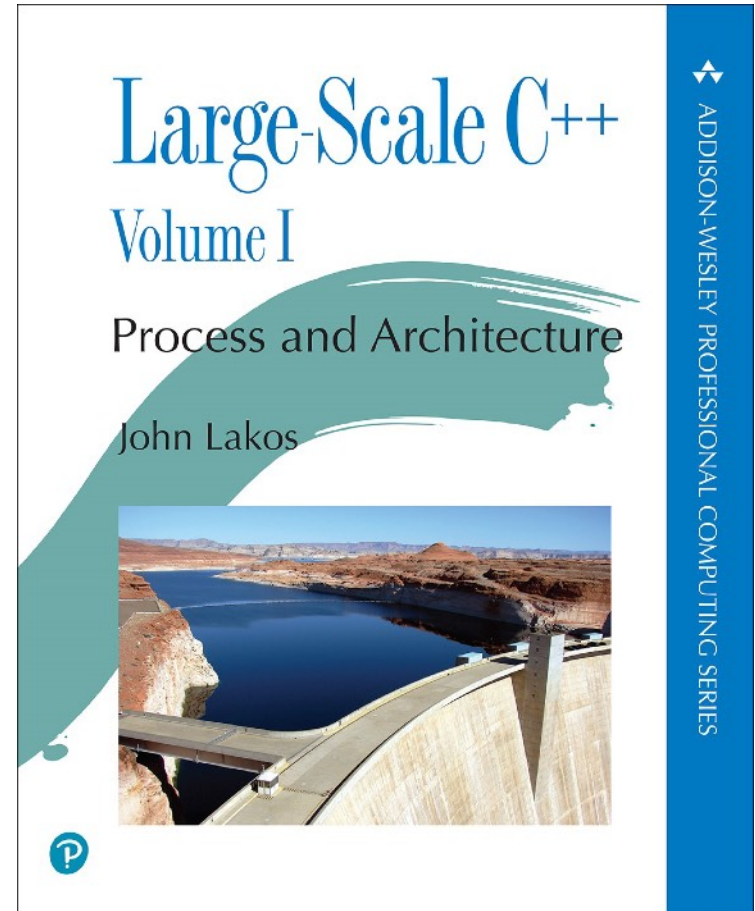
# Game Programming Patterns

- Focus on code organization and decoupling
- Good selection of patterns
- Suited for all C++ developers, not just game developers
- ISBN-10: 0990582906
- ISBN-13: 978-0990582908



# Large-Scale C++ (Volume I)

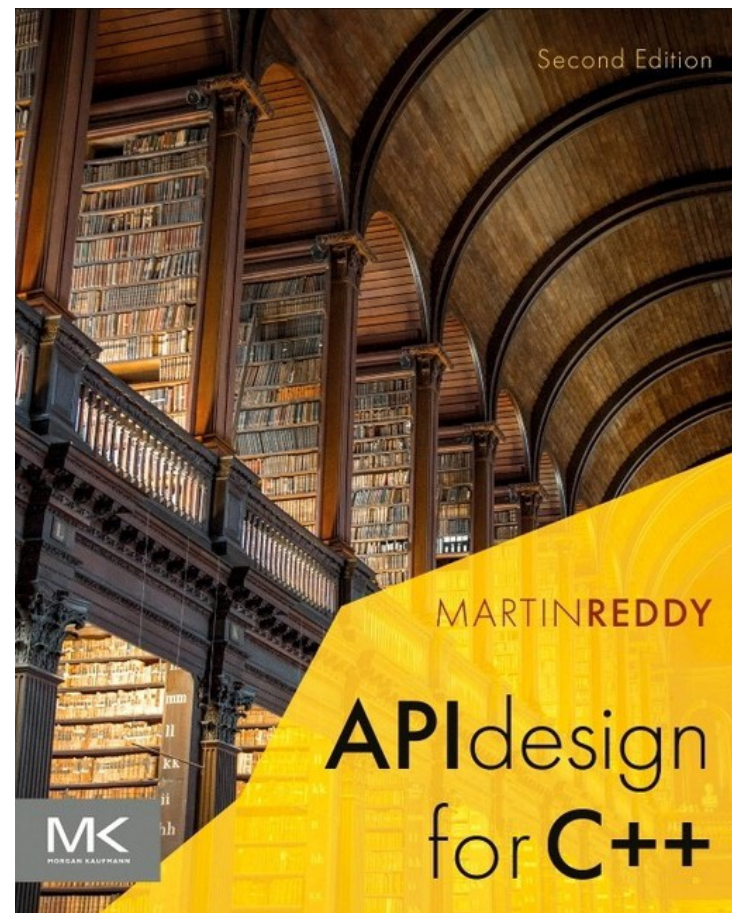
- Complete overview on software design and architecture
- Lots of important guidelines
- Very valuable for every C++ developer
- ISBN-10: 0201717069
- ISBN-13: 978-0201717068



# API Design for C++ (Second Edition)



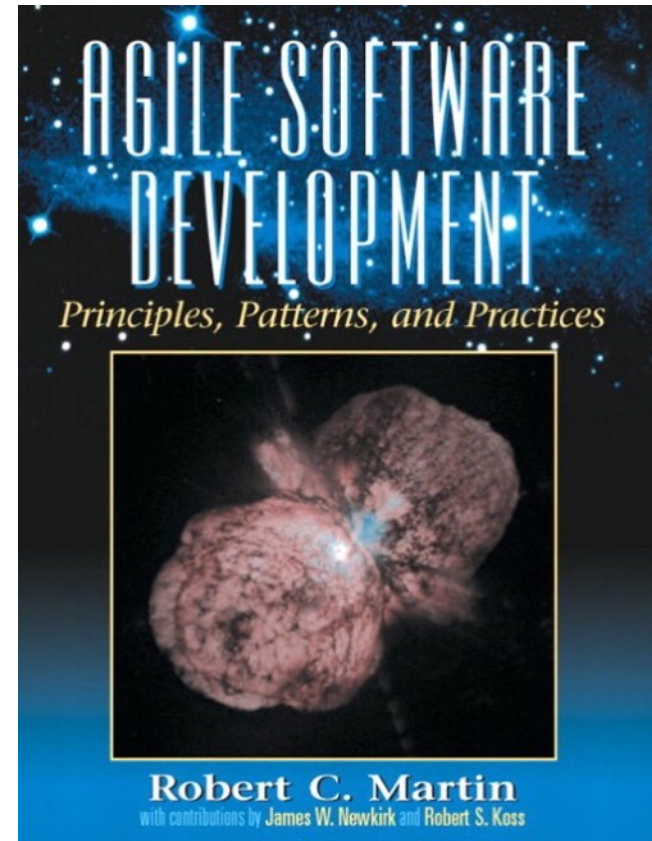
- Good overview of different aspects of API design
- From implementation details to design patterns
- ISBN-10: 0443222193
- ISBN-13: 978-0443222191



# Agile Software Developement

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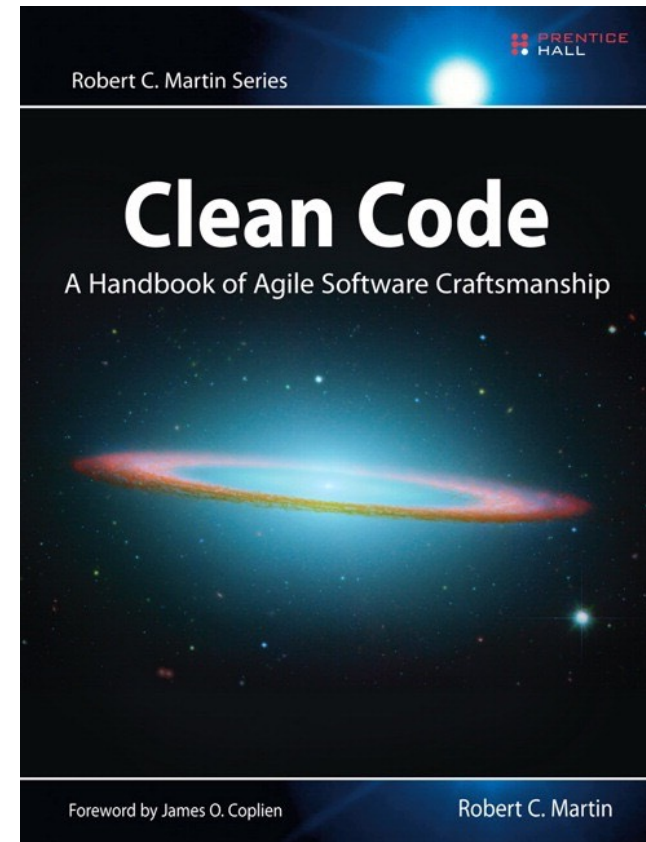
- One of the best book on the principles of agile software development
- Emphasis on design for change
- Very well written chapters on the basic principles of OO software design
- Highly recommended
- ISBN-10: 1292025948
- ISBN-13: 978-1292025940



# Clean Code

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

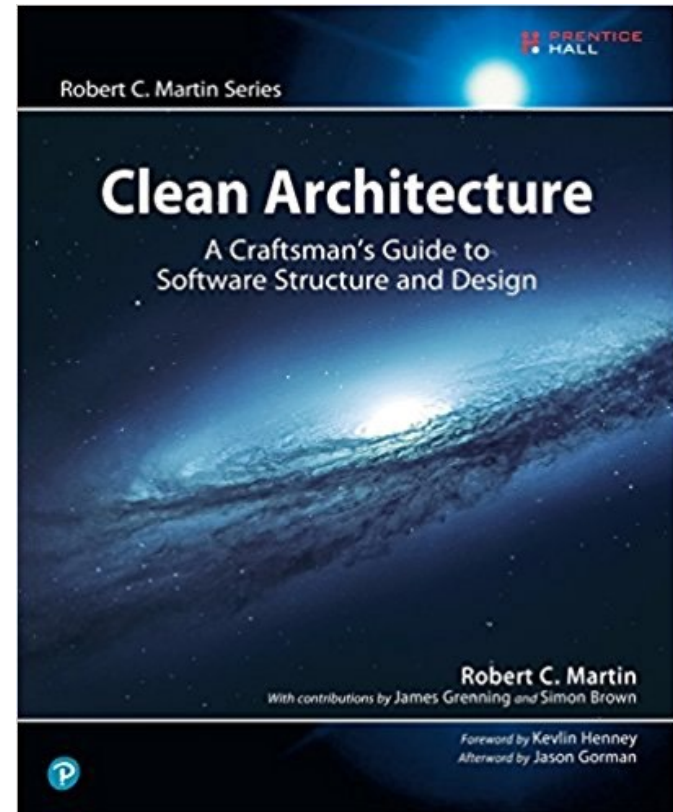




# Clean Architecture

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

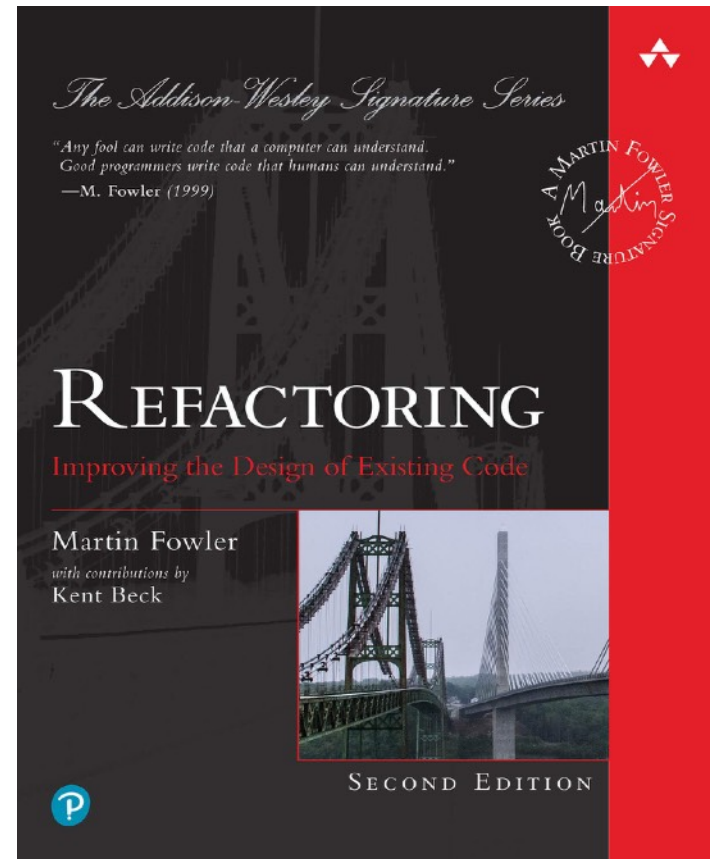


## 4. Refactoring and Testing

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# Refactoring

- Best available reference on refactoring techniques
- Well structured and written
- Recommended as reference for refactoring efforts
- ISBN-10: 0134757599
- ISBN-13: 978-0134757599

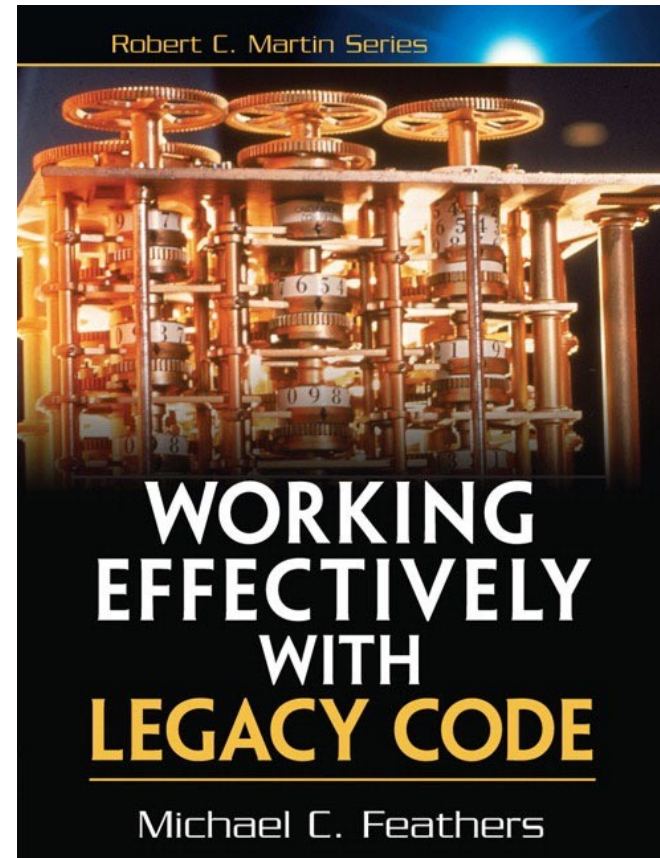




# Working Effectively with Legacy Code

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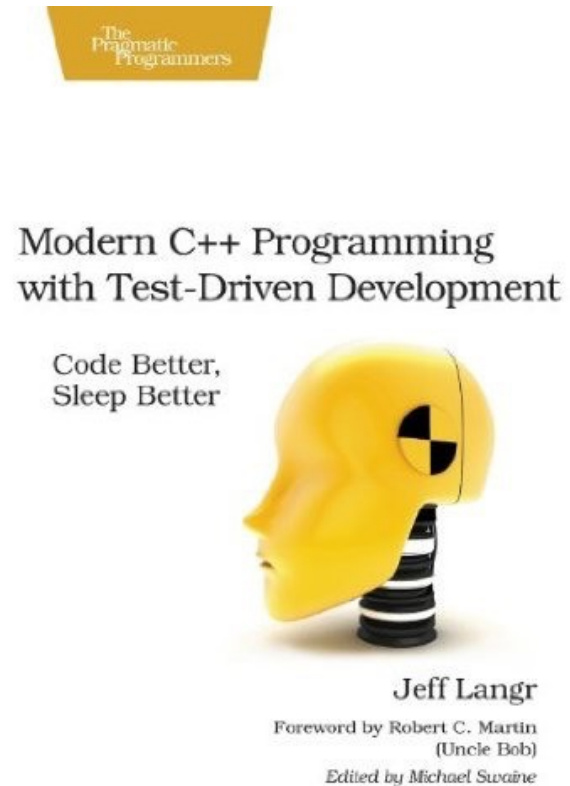
- Brilliant definition of legacy code
  - Best available reference on how to work with legacy code
  - Well suited structure
  - Recommended for nearly all companies ;-)
- 
- ISBN-10: 0131177052
  - ISBN-13: 978-0131177055



# Modern C++ Programming with Test-Driven Development



- Very thorough introduction to TDD
- Good examples
- Contains chapters on multithreaded tests
- Must-read for all companies ;-)
- ISBN-10: 1937785483
- ISBN-13: 978-1937785482



## 5. Performance Optimization

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# The Art of Writing Efficient Programs

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- Lots of advice on all aspects of performance
- Practical advice on how to benchmark performance
- ISBN-10: 1800208111
- ISBN-13: 978-1800208117



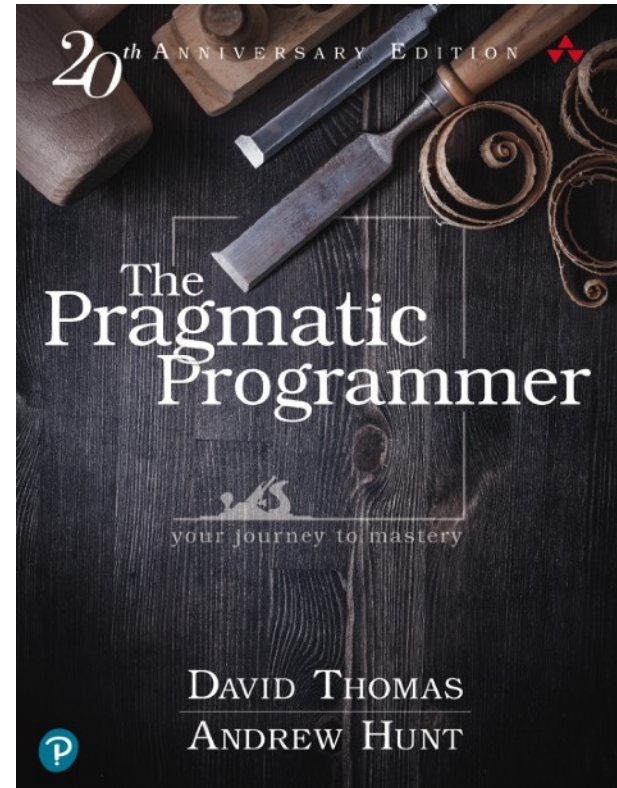
## 6. Professional Programming

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# The Pragmatic Programmer

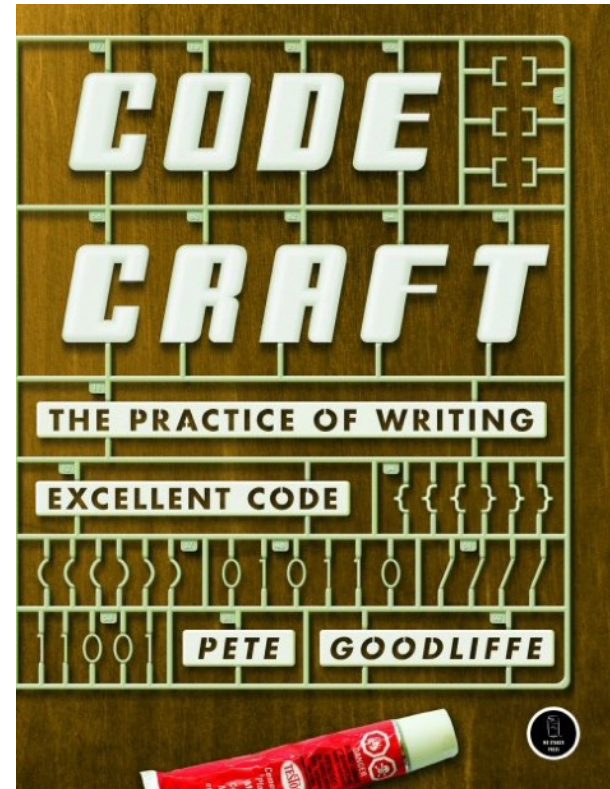
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- Expert advice on all aspects of every day software development
- Recommended read for every serious software programmer
- ISBN-10: 0135957052
- ISBN-13: 978-0135957059



# Code Craft: The Practice of Writing Excellent Code

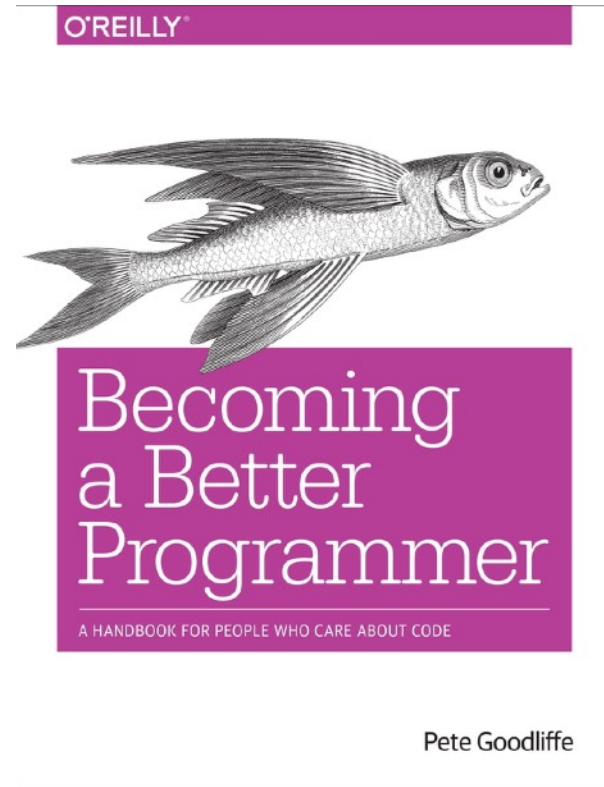
- Practical advice for the daily work in the “software factory”
- Recommended read for every software developer
- ISBN-10: 1593271190
- ISBN-13: 978-1593271190



# Becoming a Better Programmer

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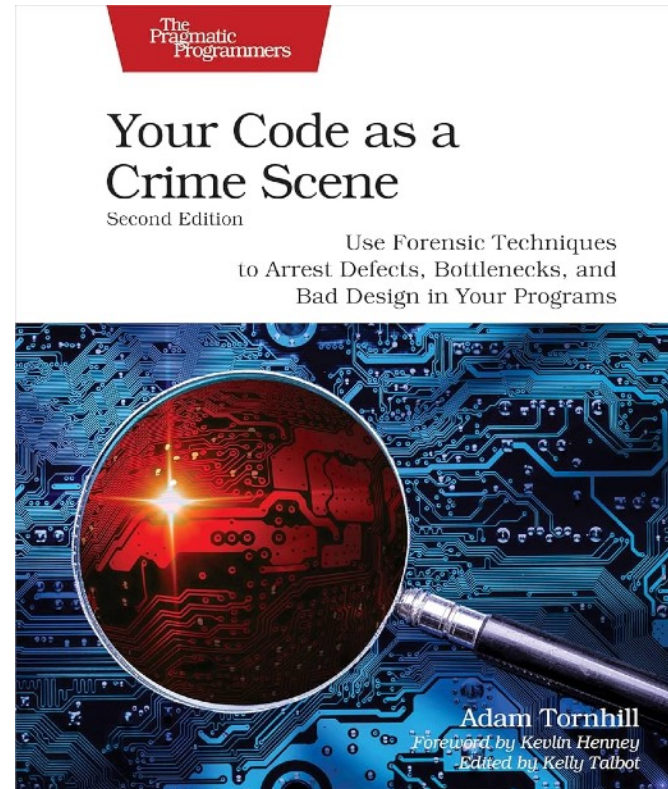
- A handbook for people who care about code
- Addresses all the essential aspects of software development
- ISBN-10: 9781491905531
- ISBN-13: 978-1491905531





# Your Code as a Crime Scene (Second Edition)

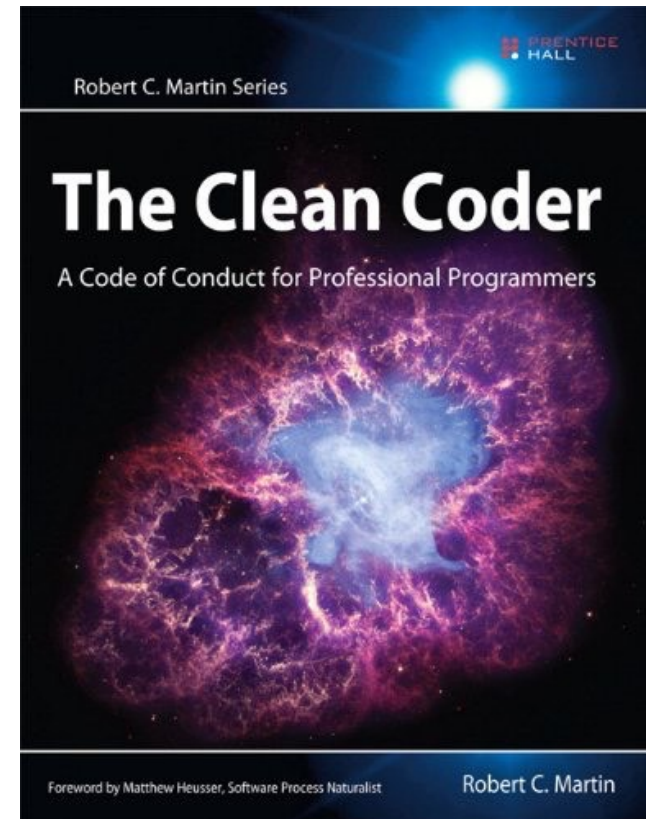
- Practical advice how to find the hot spots in your code base
- Hands-on example from real code bases
- ISBN-13: 979-8888650325



# The Clean Coder

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- Successor of Clean Code
- Focus on the programmer himself
- Recommended for every aspiring professional
- ISBN-10: 0137081073
- ISBN-13: 978-0137081073



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LinkedIn: [linkedin.com/in/klaus-iglberger-2133694/](https://www.linkedin.com/in/klaus-iglberger-2133694/)

Xing: [xing.com/profile/Klaus\\_Iglberger/cv](https://www.xing.com/profile/Klaus_Iglberger/cv)