



Advanced CASE Technology & Language Systems

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Appendix: Bibliography

Alexander Christopher, A Pattern Language, Oxford University Press, 1974

The reference book for the exact definition of what a pattern is. Not a SW book!

Grady Booch, James Rumbaugh, Ivar Jacobson, Unified Modeling Language User Guide Addison-Wesley, 1998

This book is the official user guide of UML

Grady Booch, Object-Oriented Analysis and Design with Applications Benjamin/Cummings, 1994

The reference for the Booch method. It is also one of the best introduction on basic concepts of the object oriented technology. Easy to read, strongly recommended even though not UML.

Frank Buschmann, Regine Meunier, Hans Rohnert, Pattern Oriented Software Architecture John Wiley, 1996

This book contains a collection of useful application patterns needed to the modern software development including layering, distribution,... All the authors write also interesting white papers on the web.

James O. Coplien, Advanced C++ Programming Styles and Idioms Addison-Wesley, 1993.

Terse to read, but one of the best books explaining advanced concepts of object oriented programming. Recommended for C++ experts.

Dave Collins, Designing Object-Oriented User Interfaces Benjamin/Cummings Publishing Company, 1995.

It describes OO implementation architectures from the user interface point of view.

DeMarco & Timothy Lister, Peopleware: Productive Projects and Teams Tom Dorset House, 1987.

This book describes why the most important asset of a company is its employees. The quality of this book is in the line of "the psychology of the programmer"

Bruce Powel Douglass, Doing Hard Time Developing real-time systems with UML, objects, frameworks and patterns Addison-Wesley, 1999

This book introduces the reader to OO Design for embedded real-time systems. Very clear, complete and concrete. Includes guidelines and lots of patterns. A must!!

[FowlerPat] Analysis Patterns: Reusable Object Models
 Martin Fowler
 Addison-Wesley, 1997



- Good book for experienced analysts, used to apply the methodology. Examples of domain application patterns.*
- [FowlerUML] UML Distilled: Applying the standard object modeling language
Martin Fowler & Kendall Scott
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This book summarizes very briefly the UML notation. It is a good and easy book when used as entry point to UML
- [Gilb] Principles of Software Engineering Management
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Addison-Wesley, 1991 (reprinted)
An introduction about project management and how any serious company should do it
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The reference for the Smalltalk language
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Addison-Wesley, 1995
The bestseller of design patterns. A must for every designer!
- [Gomaa] Designing concurrent, distributed and real-time application with UML
Hassan Gomaa
Addison-Wesley, 2000
Detailed overview of OO design concepts, concurrent and distribution complexity issues. The book discusses new technologies and addresses topics of scheduling, tasks, wrappers, performance and synchronization. The author proposes the COMET development process. Included are 5 case studies.
- [Grand] Patterns in Java
Mark Grand
Wiley, 1998
A catalog of Reusable Design Patterns illustrated with UML and implemented in Java.
- [Jacobson97] The Unified Software Development Process
Ivar Jacobson, Grady Booch, James Rumbaugh
Addison-Wesley, 1998
This book describes how the UML notation supports a component-based, use case-driven, architecture centric, iterative and incremental development process.
- [Jacobson] Object-Oriented Software Engineering: A Use Case Driven Approach
Ivar Jacobson
Addison-Wesley, 1992
The reference for the use case concept
- [Larman] Applying UML and Patterns
Craig Larman
Prentice Hall, 1998



- [Lea] Concurrent Programming in Java
Doug Lea
Addison-Wesley, 1998
This book is a "must read" for programmers who wish to structure concurrent Java applications.
- [Lee] UML and C++
Richard Lee, William Tepfenhart
Prentice Hall, 1997
A practical guide to object-oriented development.
- [Martin95] Designing Object Oriented C++ Applications using the Booch Method
Robert Martin
Prentice Hall 1995
Gives a very good insight on how to make good object oriented designs.
- [Martin97] Patterns Languages of Program Design
Addison-Wesley, 1997
Robert Martin
This book covers a wide range of pattern-related subjects.
- [Meyer] Object-oriented Software Construction
Bertrand Meyer
Prentice Hall, 1988
The creation of Eiffel: a very OO language but proprietary
- [Monson-Haefel] Enterprise JavaBeans
Richard Monson-Haefel
O'Reilly, 2000
This book covers EJB 1.1, explains the mechanism of entity and session beans. Enjoy it's design strategies, transaction explanations and understand the extension possibilities. Diagrams are naturally in UML. Includes code examples.
- [Royce] Software Project Management: a Unified Framework
Walker Royce
Addison-Wesley, 1998
This book presents a new management framework uniquely suited to the complexities of modern software development.
- [Rumbaugh97] Unified Modeling Language Reference Manual
James Rumbaugh, Grady Booch, Ivar Jacobson
Addison-Wesley, 1998
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James Rumbaugh and al.
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- [Stroustrup91] The C++ Programming Language (second edition)
Bjarne Stroustrup



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- [Stroustrup94] The Design and Evolution of C++
Bjarne Stroustrup
Addison-Wesley, 1994
This book describes the whole history and gestation of the language. A must for those who want to know why is C++ like
- [Umar] OO Client/Server Internet Environments
Amjad Umar
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The complete guide to building tomorrow's IT infrastructure.
- [Wirfs-Brock] Designing Object-Oriented Software
Rebecca Wirfs-Brock, Wilkerson, Wiener
Prentice Hall, 1990
Their method is one of the most intuitive way of starting the analysis of a new project: CRC cards
- [Freeman-Bates
-Sierra] Head First Design Patterns, 2004
The Design Patterns, the OO design principles are finally explained for dummies like me and you. The only heavy stuff in this book it's the weight.
- [McLaughlin-
Pollice-West] Head First Object-Oriented Analysis and Design: A Brain Friendly Guide to OOA&D, 2006
*You will learn how to:
Use OO, Apply the Open-Closed Principle (OCP) , Single Responsibility Principle (SRP,) to promote reuse of your code
Leverage the power of design, Use UML, use cases, and diagrams.*
- [Douglass] Real Time UML Workshop for Embedded Systems, 2006
This practical new book provides much-needed, practical, hands-on experience capturing analysis and design in UML for Real Time. It includes examples on Rhapsody, SysML and Harmony process.



Some good URLs for learning more about patterns are:

Doug Lea's "Patterns-Discussion FAQ"

<http://g.oswego.edu/dl/pd-FAQ/pd-FAQ.html>

Doug Lea's paper, "Christopher Alexander: An Introduction for Object-Oriented Designers"

<http://gee.cs.oswego.edu/dl/ca/ca/ca.html>

Dirk Riehle and Heinz Zullighoven's "Understanding and Using Patterns in Software Development"

<http://www.riehle.org/1996/TAPOS-96-Survey.html>

Doug Schmidt and Ralph Johnson's introduction to the October 1996, CACM Special Issue on patterns

<http://www.cs.wustl.edu/~schmidt/CACM-editorial.html>

Excerpts from Jim Coplien's SIGS management briefing Software Patterns

http://www.sigs.com/books/wp_patterns_5pp.html

Jim Coplien's paper "Software Design Patterns: Common Questions and Answers"

<ftp://st.cs.uiuc.edu/pub/patterns/papers/PatQandA.ps>

John Vlissides' article "Patterns: The Top 10 Misconceptions" in the March 1997 Object Magazine Online

<http://www.sigs.com/publications/docs/objm/9703/9703.vlissides.html>

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<http://c2.com/cgi-bin/wiki?HistoryOfPatterns>

"Pattern Definitions" from the Patterns Home page

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Steve Berczuk's "Finding solutions through pattern languages"

<http://world.std.com/~berczuk/pubs/Dec94ieee.html>

"Some Notes on Christopher Alexander", by Nikos A. Salingaros

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"Design Patterns: Elements of Reusable Architectures", by Linda Rising

<http://www.agcs.com/techpapers/patterns.htm>

Brian Kurotsuchi's Design Patterns Tutorial

<http://www.csc.calpoly.edu/~dbutler/tutorials/winter96/patterns/>

Ravi Palepu's "Modelling the Real World: Application of Patterns to Reduce Complexity in the Software Development Process"

<http://www.scs.carleton.ca/~palepu/pat.html>

Doug Schmidt's "Pattern Writer's Workshop Tutorial"

<http://www.cs.wustl.edu/~schmidt/writersworkshop.html>

Ward Cunningham's "Tips for Writing Pattern Languages" on the WikiWiki Web

<http://c2.com/cgi/wiki?TipsForWritingPatternLanguages>

"A Pattern Language for Pattern Writing" by Gerard Meszaros and Jim Doble



http://hillside.net/patterns/Writing/pattern_index.html

Richard Gabriel's article "Developing Patterns Studies" from InfoWorld on-line

http://www.infoworld.com/cgi-bin/displayArchives.pl?dt_jwe05-97_72.htm

A "Patterns BookList" on the WikiWiki Web

<http://c2.com/cgi/wiki?BookList>

Other more general patterns resources on the web are:

The Patterns Home Page

<http://hillside.net/patterns/patterns.html>

The Portland Pattern Repository

<http://www.c2.com/ppr>

Ward Cunningham's wonderful WikiWiki Web

<http://c2.com/cgi/wiki?WelcomeVisitors>

Patlets FrontPage - a Patterns Database

<http://hillside.net/patterns/patlet/?FrontPage>

Cetus Links: Patterns, hundreds of links to pattern-related pages

http://www.objenv.com/cetus/oo_patterns.html

Brad Appleton's "Software Patterns Links"

<http://www.enteract.com/~bradapp/links/sw-pats.html>

AG Communications Systems Patterns Pages

<http://www.agcs.com/patterns/>

The OrganizationPatterns FrontPage

<http://www.bell-labs.com/cgi-user/OrgPatterns/OrgPatterns>

The "Design Patterns Mailing Lists by thread"

<http://iamwww.unibe.ch:80/~fcglib/WWW/OnlineDoku/archive/DesignPatterns/>

The "Organization-patterns Mail Archive by thread"

<http://www.bell-labs.com/~cope/Patterns/organization-patterns-archive/>