## **Contents**

Acknowledgmentsix Introduction
Chapter 1 Classes
Classes and Objects
Discovering Classes
Attribute and Operation Details
More About Attributes
More About Operations
Abstract Classes
Active Classes
Interfaces, Ports, and Connectors
Internal Class Structure
Collaborations
Other Stereotypes on Classes
Looking Ahead
Chapter 2 Class Relationships
Associations
Aggregation
Generalization
Dependencies
Usage Dependencies
Abstraction Dependencies
Permission and Substitution Dependencies
Association Classes
Looking Ahead40
Chapter 3 Class and Object Diagrams
Class Diagrams
Domain-Level Class Diagrams
Analysis I evel Class Diagrams 43

Chapter 7 State Machines	91
States and Transitions Pseudostates Composite States and Submachines Sequential Substates Concurrent Substates Submachines Protocol State Machines State Machine Diagrams Looking Ahead	95100101102103
Chapter 8 Interactions	107
Interactions, Lifelines, and Messages Interaction Fragments Combined Fragments Continuations Event Occurrences Execution Occurrences Interaction Occurrences Part Decompositions State Invariants Interaction Diagrams Sequence Diagrams Communication Diagrams Interaction Overview Diagrams Timing Diagrams Looking Ahead	108111112113113114114114116117
Chapter 9 Components, Deployment, and Higher-Level Modeling	121
Components Component Diagrams Component Stereotypes Artifacts and Manifestations Nodes Deployment Deployment Diagrams	121 123 126 127 128
Frameworks, Subsystems, and Systems	131

Chapter 10 Profiles, Templates, and Information Flows	133
Profiles Templates Information Flows Index	
Appendix Stereotypes	139
Glossary	145
Bibliography	
Index	165