

Contents

<i>Preface</i>	<i>xi</i>
<i>Acknowledgments</i>	<i>xiii</i>
<i>Executive Summary</i>	<i>xv</i>

PART I CORBA AND DESIGN PATTERNS	3
<i>Chapter 1 Introduction</i>	<i>5</i>
DESIGN PATTERNS	6
CORBA	10
<i>Chapter 2 Object-Oriented Architecture</i>	<i>18</i>
SOFTWARE ENGINEERING TRENDS	18
BOUNDARIES AND ARCHITECTURE	21
DISTRIBUTION AND ARCHITECTURE	28
TYPE MANAGEMENT	35
ARCHITECTURE QUALITY	39
CORBA AND OO ARCHITECTURE	41

<i>Chapter 3 Overview of the Design Pattern Language</i>	46
PRIMAL FORCES	48
SCALABILITY MODEL	56
DESIGN PATTERN TEMPLATE	68
COMPARISON WITH OTHER PATTERN LANGUAGES	74
CONCLUDING REMARKS	78
PART II APPLICATION DESIGN PATTERNS	81
<hr/>	
<i>Chapter 4 Maximizing Parallelism</i>	82
DISTRIBUTED CALLBACK	83
PARTIAL PROCESSING	90
INDEPENDENT OBJECTS	99
<i>Chapter 5 Improving Object Implementations</i>	106
DYNAMIC ATTRIBUTES	108
INSTANCE REFERENCE	114
OBJECT WRAPPER	121
LOCK	126
<i>Chapter 6 Modifying Client Stubs and Other Tricks</i>	130
LIBRARY SKELETON	132
FINE-GRAINED FRAMEWORK	137
LIBRARY	144
FRAMEWORK	149
PART III SYSTEM DESIGN PATTERNS	155
<hr/>	
<i>Chapter 7 Principles of Object-Oriented Architecture</i>	157
HORIZONTAL-VERTICAL-METADATA	158
METADATA	162
ARCHITECTURE MINING	166

<i>Chapter 8 Fundamental Structural Patterns</i>	172
REPOSITORY ARCHITECTURE	176
GATEWAY	181
COMPONENT ARCHITECTURE	185
 <i>Chapter 9 Advanced System Design Patterns</i>	 189
ARCHITECTURE ENFORCEMENT	191
REPLICATION	198
AGENT	202
ARCHITECTURE FRAMEWORK	206
 <i>Chapter 10 Using OMG CORBA services</i>	 210
NAMING	213
TRADER	217
NOTIFICATION	221
 PART IV ENTERPRISE DESIGN PATTERNS	 227
<hr/> <i>Chapter 11 Building an Organizational Infrastructure</i>	<hr/> 228
STANDARDS REFERENCE MODEL	231
OBJECT REQUEST BROKER	235
OPERATING ENVIRONMENT	239
SYSTEM MANAGEMENT	243
PROFILE	246
SOFTWARE DEVELOPMENT ROLES	254
 PART V GLOBAL DESIGN PATTERNS	 263
<hr/> <i>Chapter 12 Role of Open Systems</i>	<hr/> 265
STANDARDS	267
REFERENCE TECHNOLOGY	272
COMMON INTERFACE	277

<i>Chapter 13 Internet Design Patterns</i>	282
CORBA-CGI GATEWAY	284
CORBA-WEB SERVER	287
JAVA	291
APPLET	295
ORBLET	298
DII-WEB SERVER	301
<i>Acronyms</i>	305
<i>Glossary</i>	309
<i>Bibliography</i>	313
<i>Index</i>	319