

Contents

About the Author	<i>ix</i>
About the Technical Reviewers	<i>x</i>
Acknowledgments	<i>xi</i>
Introduction	<i>xiii</i>
Chapter 1 Extending SAP: Past and Present Technologies	1
SAP and Centralized ERP	2
A Brief History of SAP and the Internet	7
Alternative Development for SAP	12
Chapter 2 Exploring the Java Platform	17
The Enterprise Java Platform	18
Java Essentials for SAP	24
Deploying Applications with Java	27
Summary	34
Chapter 3 Understanding Object-Oriented Design and Development	35
Getting Object Oriented	36
Implementing Object-Oriented Designs	40
Building Object Systems with Design Patterns	43
Summary	47
Chapter 4 JCo 101: Programming with SAP's Java Connector	49
Working with the Java Development Environment	50
Connecting to SAP Using JCo	57
Building a Simple Application with JCo	60
Summary	88

Chapter 5 Building a Desktop Interface to SAP.....	91
Using Configuration Files	92
Providing Object-Level Access	99
Developing a Graphical User Interface	112
Summary.....	131
 Chapter 6 Extending SAP to the Web.....	 133
Looking at the Application Server.....	134
Installing Tomcat	135
Building a Sample Application	138
Sharing JCo System Resources	164
Summary.....	172
 Chapter 7 Developing Web Applications with Struts...173	
The Model-View-Control Design Pattern	174
Using the Struts Framework.....	181
Deploying an Initial Application with Struts	189
More Struts Development	218
Summary.....	231
 Chapter 8 Crossing the Chasm: Bridging SAP and an External Database.....	 233
Java Database Connectivity	234
Deploying the Hypersonic SQL Database	240
Building Database Tables	244
Bringing It Together with Struts	260
Summary.....	269
 Chapter 9 Advanced Java Programming in SAP.....	 271
Introducing JCo Connection Pools	272
Calling Java Objects from Within SAP	279
Building Custom Java Tab Libraries.....	290
Summary.....	296
 Appendix Alternate RFC Development in SAP	 297
Mapping BAPIs to Custom RFCs	297
Updating the InterfaceCaller Class	303
 Index.....	 297