Contents

Foreword ix

About the Author xi

About the Technical Reviewers xiii

Acknowledgments xv

Chapter 1 Introducing Jakarta Commons: The Uncommon Commons 1

Examining the Apache Factor 2
Understanding the Scope of Commons 2
Getting an Overview of the Components 3
Where Do You Use Commons? 6
Developing a Web Application 7
Developing Other Applications 7
Why Should You Use Commons? 8
Moving Beyond Jakarta Commons 9
Summary 9

Chapter 2 Using the Lang Component 11

Introducing the Packages Within Lang 11
Using org.apache.commons.lang 12
Using org.apache.commons.builder 25
Using org.apache.commons.exception 30
Using org.apache.commons.enum 32
Using org.apache.commons.math 34
Using org.apache.commons.time 36
Summary 38

Chapter 3 Using the Logging Component 39

Understanding Logging APIs 39
Using the Logging Component 41
Summary 49

Chapter 4 Using the Validator Component *51*

Introducing the Validator Component *51*
Using the Validator Independently *53*
Using the Struts Validator *63*
Summary *75*

Chapter 5 Using the BeanUtils Component *77*

Ringing Out the Old...Ringing In the New *78*
Understanding Property Types *81*
Using Dynamic Beans *86*
Using the BeanComparator Class *94*
Summary *95*

Chapter 6 Implementing Pooling *97*

Why Use Pooling? *97*
Using the Pool Component *98*
Understanding Database Connection Pooling *106*
Integrating DBCP with Struts *116*
Summary *117*

Chapter 7 Using the Digester Component *119*

Introducing Digester *119*
Understanding Digester Concepts *123*
Following XML Rules *125*
Introducing Other Digester Features *138*
Summary *138*

Chapter 8 Using Collections and Primitives *139*

Introducing the Collections Component *139*
Using Collections *140*
Introducing Primitives *159*
Summary *161*

Chapter 9 Using HttpClient and FileUpload *163*

Introducing HttpClient *164*
Using HttpClient *164*

Introducing FileUpload 173
Summary 178

Chapter 10 Using the Net Component 179

Introducing the Net Component 179
Working with Simple Mail Transfer Protocol (SMTP) 182
Working with Post Office Protocol 3 (POP3) 187
Working with File Transfer Protocol (FTP) 190
Working with Network News Transfer Protocol (NNTP) 194
Working with Time and Daytime 197
Summary 201

Chapter 11 Using Other Commons Components 203

Implementing DbUtils 203
Implementing Codec 210
Implementing JXPath 211
Implementing Discovery 216
Summary 218

Index 221