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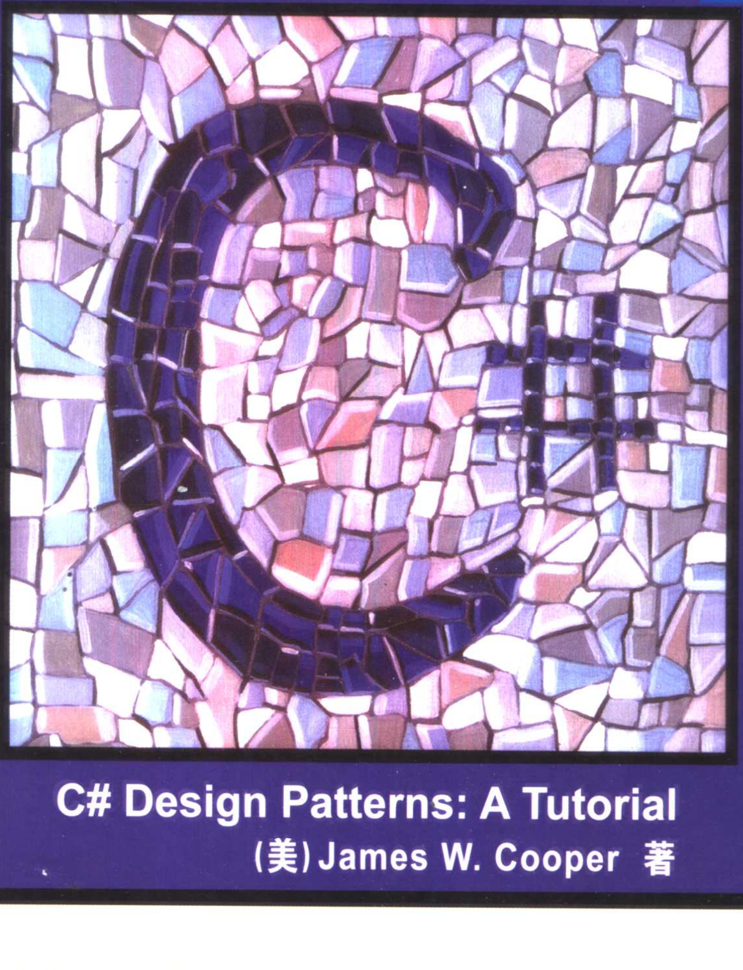

C# Design Patterns: A Tutorial

(美) James W. Cooper 著

设计模式：C#语言版
(影印版)

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（影印版）

（美）　James W. Cooper

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C# DESIGN PATTERNS

A Tutorial

James W. Cooper

Addison-Wesley

Boston • San Francisco • New York • Toronto • Montreal
London • Munich • Paris • Madrid
Capetown • Sydney • Tokyo • Singapore • Mexico City

PREFACE

This is a practical book that tells you how to write C# programs using some of the most common design patterns. It also serves as a quick introduction to programming in the new C# language. The pattern discussions are structured as a series of short chapters, each describing a design pattern and giving one or more complete working, visual example programs that use that pattern. Each chapter also includes UML diagrams illustrating how the classes interact.

This book is not a "companion" book to the well-known *Design Patterns* text by the "Gang of Four." Instead, it is a tutorial for people who want to learn what design patterns are about and how to use them in their work. You do not have to have read *Design Patterns* to read this book, but when you are done here, you may well want to read or reread it to gain additional insights.

In this book, you will learn that design patterns are frequently used ways of organizing objects in your programs to make them easier to write and modify. You'll also see that by familiarizing yourself with them, you've gained some valuable vocabulary for discussing how your programs are constructed.

People come to appreciate design patterns in different ways—from the highly theoretical to the intensely practical—and when they finally see the great power of these patterns, an "Aha!" moment occurs. Usually this is the moment when you discover how that pattern can help you in *your* work.

In this book, we try to help you form that conceptual idea, or *gestalt*, by describing the pattern in as many ways as possible. The book is organized into six main sections: an introductory description, an introduction to C#, and descriptions of patterns that are grouped as creational, structural, and behavioral.

For each pattern, we start with a brief verbal description and then build simple example programs. Each of these examples is a visual program that you can run and examine to make the pattern as concrete a concept as possible. All

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of the example programs and their variations are on the companion CD-ROM, where you run them, change them, and see how the variations you create work.

Since each of the examples consists of a number of C# files for each of the classes we use in that example, we provide a C# project file for each example and place each example in a separate subdirectory to prevent any confusion. This book assumes you have and will be using a copy of Visual Studio.NET, which comes in several versions. We used the Professional Edition in developing the code samples.

If you leaf through the book, you'll see screenshots of the programs we developed to illustrate the design patterns, providing yet another way to reinforce your learning of these patterns. In addition, you'll see UML diagrams of these programs, illustrating the interactions between classes in yet another way. UML diagrams are just simple box-and-arrow illustrations of classes and their inheritance structure, where arrows point to parent classes, and dotted arrows point to interfaces. And if you're not yet familiar with UML, we provide a simple introduction in the second chapter. All of the diagrams were produced using WithClass 2000, and a demonstration version of that program is included on the CD-ROM.

When you finish this book, you'll be comfortable with the basics of design patterns and will be able to start using them in your day-to-day C# programming work.

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CONTENTS

Preface *xix*

Acknowledgments *xxi*

Part I Object-Oriented Programming in C# **1**

Chapter 1 What Are Design Patterns? 3

Defining Design Patterns 5

The Learning Process 6

Studying Design Patterns 7

Notes on Object-Oriented Approaches 7

C# Design Patterns 8

How This Book Is Organized 8

Chapter 2 Syntax of the C# Language 11

Data Types 12

Converting between Numbers and Strings 13

Declaring Multiple Variables 14

Numeric Constants 14

Character Constants 14

Variables 15

Declaring Variables as You Use Them *15*

Multiple Equals Signs for Initialization 16

A Simple C# Program 16

Arithmetic Operators 17

Increment and Decrement Operators 18
Combining Arithmetic and Assignment Statements 18
Making Decisions in C# 19
Comparison Operators 20
Combining Conditions 21
The Most Common Mistake 21
The Switch Statement 22
C# Comments 23
The Ornery Ternary Operator 23
Looping Statements in C# 24
The While Loop 24
The Do-While Statement 24
The For Loop 24
Declaring Variables as Needed in For Loops 25
Commas in For Loop Statements 25
How C# Differs from C 26
How C# Differs from Java 27
Summary 27

Chapter 3 Writing Windows C# Programs **29**
Objects in C# 29
Managed Languages and Garbage Collection 30
Classes and Namespaces in C# 30
Building a C# Application 31
The Simplest Window Program in C# 32
Windows Controls 35
Labels 35
TextBox 36
CheckBox 36
Buttons 37
Radio Buttons 37
ListBoxes and ComboBoxes 38
The Items Collection 38

Menus 39
ToolTips 39
The Windows Controls Program 40
Summary 41
Programs on the CD-ROM 41

Chapter 4 Using Classes and Objects in C# 43
What Do We Use Classes For? 43
A Simple Temperature Conversion Program 43
Building a Temperature Class 45
Converting to Kelvin 47
Putting the Decisions into the Temperature Class 47
Using Classes for Format and Value Conversion 48
Handling Unreasonable Values 51
A String Tokenizer Class 51
Classes as Objects 53
Class Containment 55
Initialization 56
Classes and Properties 56
Programming Style in C# 58
Delegates 59
Indexers 61
Operator Overloading 62
Summary 63
Programs on the CD-ROM 63

Chapter 5 Inheritance 65
Constructors 65
Drawing and Graphics in C# 66
Using Inheritance 68
Namespaces 68
Creating a Square from a Rectangle 69
Public, Private, and Protected 71

Overloading 71
Virtual and Override Keywords 72
Overriding Methods in Derived Classes 72
Replacing Methods Using New 74
Overriding Windows Controls 74
Interfaces 76
Abstract Classes 76
Comparing Interfaces and Abstract Classes 79
Summary 80
Programs on the CD-ROM 80

Chapter 6 UML Diagrams *81*
Inheritance 82
Interfaces 84
Composition 84
Annotation 85
WithClass UML Diagrams 86
C# Project Files 86

Chapter 7 Arrays, Files, and Exceptions in C# *87*
Arrays 87
Collection Objects 88
ArrayLists 88
Hashtables 89
SortedLists 89
Exceptions 90
Multiple Exceptions 91
Throwing Exceptions 92
File Handling 92
The File Object 92
Reading a Text File 93
Writing a Text File 93
Exceptions in File Handling 94
Testing for End of File 94

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A csFile Class 95

Program on the CD-ROM 96

Part 2 Creational Patterns 97

Chapter 8 The Simple Factory Pattern **99**

How a Simple Factory Works 99

Sample Code 100

The Two Derived Classes 100

Building the Simple Factory 101

Using the Factory 102

Factory Patterns in Math Computation 103

Summary 106

Thought Questions 106

Programs on the CD-ROM 106

Chapter 9 The Factory Method **107**

The Swimmer Class 109

The Events Classes 109

StraightSeeding 110

CircleSeeding 111

Our Seeding Program 111

Other Factories 112

When to Use a Factory Method 113

Thought Question 113

Program on the CD-ROM 113

Chapter 10 The Abstract Factory Pattern **115**

A GardenMaker Factory 115

The PictureBox 118

Handling the RadioButton and Button Events 119

Adding More Classes 120

Consequences of Abstract Factory 120

Thought Question 121
Program on the CD-ROM 121

Chapter 11 The Singleton Pattern **123**
Creating Singleton Using a Static Method 123
Exceptions and Instances 124
Throwing the Exception 125
Creating an Instance of the Class 125
Providing a Global Point of Access to a Singleton 126
Other Consequences of the Singleton Pattern 126
Programs on the CD-ROM 127

Chapter 12 The Builder Pattern **129**
An Investment Tracker 130
The Stock Factory *132*
The CheckChoice Class *133*
The ListboxChoice Class *134*
Using the Items Collection in the ListBox Control 135
Plotting the Data *136*
The Final Choice *137*
Consequences of the Builder Pattern 138
Thought Questions 138
Program on the CD-ROM 139

Chapter 13 The Prototype Pattern **141**
Cloning in C# 142
Using the Prototype 142
Cloning the Class 146
Using the Prototype Pattern 147
Dissimilar Classes with the Same Interface *150*
Prototype Managers 152
Consequences of the Prototype Pattern 153
Thought Question 153
Programs on the CD-ROM 154
Summary of Creational Patterns 154

Part 3 Structural Patterns 155

Chapter 14 The Adapter Pattern **157**

Moving Data between Lists 157

Making an Adapter 159

Using the DataGrid 160

Detecting Row Selection 162

Using a TreeView 163

The Class Adapter 164

Two-Way Adapters 166

Object versus Class Adapters in C# 166

Pluggable Adapters 166

Thought Question 167

Programs on the CD-ROM 167

Chapter 15 The Bridge Pattern **169**

The Bridger Interface 170

The VisList Classes 172

The Class Diagram 173

Extending the Bridge 173

Windows Forms as Bridges 176

Consequences of the Bridge Pattern 177

Thought Question 177

Programs on the CD-ROM 177

Chapter 16 The Composite Pattern **179**

An Implementation of a Composite 180

Computing Salaries 180

The Employee Classes 181

The Boss Class 183

Building the Employee Tree 184

Self-Promotion 186

Doubly Linked Lists 187

Consequences of the Composite Pattern 188

A Simple Composite 188

Composites in .NET 189

Other Implementation Issues 189

Thought Questions 189

Programs on the CD-ROM 190

***Chapter 17 The Decorator Pattern* 191**

Decorating a CoolButton 191

Handling Events in a Decorator 193

Layout Considerations 194

Control Size and Position 194

Multiple Decorators 195

Nonvisual Decorators 197

Decorators, Adapters, and Composites 197

Consequences of the Decorator Pattern 198

Thought Questions 198

Programs on the CD-ROM 198

***Chapter 18 The Façade Pattern* 199**

What Is a Database? 199

Getting Data Out of Databases 201

Kinds of Databases 202

ODBC 202

Database Structure 203

Using ADO.NET 203

Connecting to a Database 204

Reading Data from a Database Table 204

Executing a Query 205

Deleting the Contents of a Table 205

Adding Rows to Database Tables Using ADO.NET 206

Building the Façade Classes 207

Building the Price Query 207

Making the ADO.NET Façade 209

The DBTable Class 211

Creating Classes for Each Table 213

Building the Price Table 215

Loading the Database Tables 218
The Final Application 219
What Constitutes the Façade? 220
Consequences of the Façade 220
Thought Question 221
Program on the CD-ROM 221

Chapter 19 The Flyweight Pattern **223**
Discussion 224
Example Code 224
The Class Diagram *228*
Selecting a Folder *229*
Handling the Mouse and Paint Events 230
Flyweight Uses in C# 231
Sharable Objects 231
Copy-on-Write Objects 232
Thought Question 232
Program on the CD-ROM 232

Chapter 20 The Proxy Pattern **233**
Sample Code 234
Proxies in C# 236
Copy-on-Write 237
Comparison with Related Patterns 237
Thought Question 237
Program on the CD-ROM 237
Summary of Structural Patterns 237

Part 4 Behavioral Patterns **239**

Chapter 21 Chain of Responsibility **241**
Applicability 242
Sample Code 243
ListBoxes 246
Programming a Help System 248
Receiving the Help Command *250*

A Chain or a Tree? 251
Kinds of Requests 252
Examples in C# 252
The Chain of Responsibility 253
Thought Question 253
Programs on the CD-ROM 253

Chapter 22 The Command Pattern 255
Motivation 255
Command Objects 256
Building Command Objects 257
Consequences of the Command Pattern 259
The CommandHolder Interface 259
Providing Undo 262
Thought Questions 268
Programs on the CD-ROM 268

Chapter 23 The Interpreter Pattern 269
Motivation 269
Applicability 269
A Simple Report Example 270
Interpreting the Language 271
Objects Used in Parsing 272
Reducing the Parsed Stack 276
Implementing the Interpreter Pattern 277
The Syntax Tree 278
Consequences of the Interpreter Pattern 281
Thought Question 282
Program on the CD-ROM 282

Chapter 24 The Iterator Pattern 283
Motivation 283
Sample Iterator Code 284
Fetching an Iterator 285
Filtered Iterators 286
The Filtered Iterator 286

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