

CONTENTS in detail

FOREWORD BY STEVE KLAVNIK xvii

ACKNOWLEDGMENTS xxi

1		
WHAT THIS BOOK'S ABOUT		1
Why Learn Programming (and Why Ruby)?	.....	3
All Adults on Deck: Installing Ruby	.....	4
Installing on Mac or Linux	.....	5
Installing on Windows	.....	6
Achievement Unlocked: Ruby Installed!	.....	8
Putting on the Ruby Slippers	.....	8
Getting to Know IRB	.....	10
Using a Text Editor and the ruby Command	.....	11
Mac	.....	12
Linux	.....	12
Windows	.....	12
Creating Your First Script	.....	12
When to Use IRB and When to Use a Text Editor	.....	14
The Prompts Used in This Book	.....	15
Into the Shiny Red Yonder	.....	16

2		
THE KING AND HIS STRING		19
A Short Yarn	.....	19
A Bit More About Variables	.....	22
Ruby Operators	.....	24
A Smallish Project for You	.....	27
You Know This!	.....	29

3		
PIPE DREAMS		31
The Apprentice Plumber's Dilemma	.....	31
Writing and Running Ruby Scripts	.....	33
His Majesty's Flow Control	.....	35

Improving flow_rate.rb with Fancier Logical Operators	40
A Biggerish Project for You	43
You Know This!	45

4 **Staying in the Loop** **47**

Ruby on Monorails	47
while Loops	50
Arrays	54
Putting Arrays and Loops into Action	56
Your Project, Should You Choose to Accept It.	58
You Know This!	61

5 **array of sunshine and hash on the range** **63**

Big Hank's Hashery	63
Arrays Within Arrays	66
Even More Array Methods!	68
Shift! Pop! Insert!	69
Iterating with Arrays	72
Hash in the Hashery	74
Rollicking Ranges	78
Order Up!	81
You Know This!	84

6 **The (Chunky) Bacon to Ruby's hash** **91**

Symbols!	91
The Skinny on Symbols	94
Symbols and Hashes, Together at Last	97
The Mid-morning Rush	101
What Else Can You Do with Symbols?	104
You Know This!	105

7 **The magic of methods and blocks** **109**

A Method to the Madness	109
Defining Your Own Methods	114
return Versus puts	115
Understanding Method Arguments	117

What Is nil?	120
Splat Parameters	122
Block Methods.	124
Into the Dagron’s Lair	127
You Know This!.	130

8 *EVERYTHING IS AN OBJECT (ALMOST)* 133

The Subject of Our Story Is an Object	133
Classes and Objects	137
Creating Our First Class, Minstrel	140
Variable Scope.	144
These Variable Errors Will Shock and Surprise You!.	145
Global Variables	147
Class Variables	148
Instance Variables	150
Local Variables	152
Objects and self.	154
Methods and Instance Variables	157
Dial-a-Ballad, or the Minstrel’s Delivery Service	164
You Know This!.	167
Objects and Classes.	167
Variables and Scope	170
Object-Oriented Programming.	174

9 *INHERITING THE MAGIC OF RUBY* 177

Her Majesty’s Menagerie	177
A Brush-up on Classes	182
A Couple of Classes.	183
Inheritance and DRY Code.	185
Subclass and Superclass.	188
Overriding Methods: Pirates are People, Too	190
Using super	192
Protecting the Kingdom with GuardDogs and FlyingMonkeys	193
Every GuardDog Has His Day	195
Once More, with Feeling!	196
The Queen’s Machine	199
You Know This!.	203

10		
	<i>a horse of a different color</i>	207
	Utter Panda-monium	207
	Creating Modules	211
	Constants.	213
	Extending Your Knowledge	214
	Mixins and Inheritance	215
	Requiring Another File	217
	Looking Up Constants	221
	A Horse of a Different Color	224
	You Know This!	227
11		
	<i>Second Time's the Charm</i>	233
	Refactoring at the Refactory.	233
	Variable Assignment Tricks.	237
	Crystal-Clear Conditionals.	240
	When You Need a case Statement.	242
	Simplifying Methods.	244
	De-duplicating Code	249
	Re-refactoring	255
	You Know This!	258
12		
	<i>Reading, Writing, and Ruby Magic</i>	265
	File Input and Output	265
	Opening a File with Ruby.	268
	Writing and Adding to Files.	270
	Avoiding Errors While Working with Files.	275
	All Loading Docks, Report for Duty!	277
	You Know This!	280
13		
	<i>Follow the WEBRick Road</i>	285
	Ruby and the Internet	285
	Using the open-uri Ruby Gem	287
	Investigating the Kingdom's Web Server	290
	Beyond the Kingdom Walls	296
	You Know This!	298

14

WHERE TO GO NEXT 301

The Big Picture: What You Know	301
Additional Resources and Further Reading	304
Beginner Books	304
Intermediate Books	305
Advanced Books	306
Online and Multimedia.	306
Interactive Resources	307
Additional Topics	308

A

INSTALLING RUBY ON MAC AND LINUX 313

Installing on Mac	313
Installing on Linux	314

B

TROUBLESHOOTING 315

Errors Running Ruby Scripts.	315
Command Not Found	316
No Such File or Directory	316
Errors Using IRB	316
Undefined Local Variable or Method	317
Syntax Error	317
Can't Convert nil into String	317
You Were Saying . . . ?	318
Clear the Screen	318
Go Back to a Previous Command.	319
Look It Up!.	319

INDEX 321