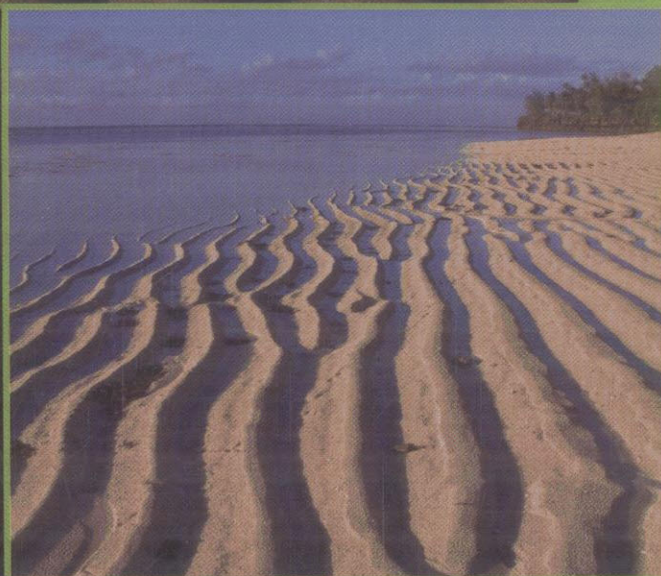


The Addison-Wesley Signature Series



AGILE GAME DEVELOPMENT WITH SCRUM

CLINTON KEITH



Foreword by Mike Cohn

Contents

FOREWORD	xvii
PREFACE	xix
ACKNOWLEDGMENTS	xxiii
ABOUT THE AUTHOR	xxv
 Part I The Problem and the Solution	 1
1 The Crisis Facing Game Development	3
A Brief History of Game Development	4
Iterating on Arcade Games	5
Early Methodologies	6
The Death of the Hit-or-Miss Model	7
The Crisis	10
Less Innovation	10
Less Value	10
Deteriorating Work Environment	10
A Silver Lining	11
Additional Reading	12
2 Agile Development	13
Why Projects Are Hard	14
Learning from Postmortems	14
The Problems	17
Why Use Agile for Game Development?	20
Knowledge Is Key	21
Cost and Quality	22
Finding the Fun First	22
Eliminating Waste	24
Agile Values Applied to Game Development	24
What an Agile Project Looks Like	28
Agile Development	31
The Entire Project	31
The Challenge of Agile	32
Additional Reading	32

Part II Scrum and Agile Planning	33
3 Scrum	35
The History of Scrum	36
The Big Picture	38
The Principles of Scrum	40
Scrum Parts	41
The Product Backlog	41
Sprints	42
Releases	43
Scrum Roles	44
The Scrum Team	44
The Team	46
ScrumMaster	46
Product Owner	51
Customers and Stakeholders	54
Chickens and Pigs	55
Scaling Scrum	56
Summary	56
Additional Reading	57
4 Sprints	59
The Big Picture	59
Planning	59
Sprint Prioritization	60
Sprint Planning	61
Length	65
Tracking Progress	68
Task Cards	69
Burndown Chart	69
Daily Sprint Backlog Trend	70
Task Board	72
War Room	73
The Daily Scrum Meeting	74
The Practice	74
Sprint Reviews	75
Single-Team Reviews	76
Multiteam Reviews	76
Publisher Stakeholders	77
Studio Stakeholders	78
Honest Feedback	78

Retrospectives	78
The Meeting	79
Posting and Tracking Results	80
Sprint Failures	80
Sprint Interrupted	80
Sprint Resets	81
When Teams Fail	81
Running Out of Work	84
Summary	84
Additional Reading	84
5 User Stories	85
A Fateful Meeting	85
What Are User Stories?	87
Levels of Detail	88
Conditions of Satisfaction	90
Using Index Cards for User Stories	92
INVEST in User Stories	92
Independent	92
Negotiable	93
Valuable	95
Estimatable	95
Sized Appropriately	96
Testable	97
User Roles	97
Defining Done	99
Collecting Stories	100
Advantages of User Stories	103
Face-to-Face Communication	103
Everyone Can Understand User Stories	104
Summary	105
Additional Reading	105
6 Agile Planning	107
Why Agile Planning?	107
The Product Backlog	108
Prioritizing the Product Backlog	109
Continual Planning	110
Forecasting the Future	110

Estimating Story Size	112
How Much Effort Should We Spend Estimating?	112
Where Are Story Sizes Estimated?	113
Story Points	114
Planning Poker	115
Story Point Sizes and the Fibonacci Series	116
Ideal Days	117
Release Planning	117
Release Planning Meetings	117
Rolling Out the Plan	120
Updating the Release Plan	120
Magazine Demos and Hardening Sprints	122
Summary	124
Additional Reading	124

Part III Agile Game Development 125

7	Video Game Project Planning	127
	Midnight Club Story	127
	Minimum Required Feature Sets	128
	The Need for Stages	130
	The Development Stages	130
	Mixing the Stages	132
	Managing Stages with Releases	132
	Production on an Agile Project	134
	Production Debt	134
	The Challenge of Scrum in Production	136
	Lean Production	139
	Working with Scrum	153
	Transitioning Scrum Teams	155
	Summary	155
	Additional Reading	155
8	Teams	157
	Great Teams	158
	A Scrum Approach to Teams	159
	Cross-Discipline Teams	160
	Self-Management	161
	Self-Organization	161
	Team Size	164
	Leadership	165

Game Teams and Collaboration	168
Feature Teams	169
Functional Teams	170
Production Teams	171
Shared Infrastructure Teams	171
Tool Teams	172
Pool Teams	172
Integration Teams	173
Scaling and Distributing Scrum	173
The Problem with Large Teams	174
The Scrum of Scrums	175
A Hierarchy of Product Owners	177
Aligning Sprint Dates	178
Communities of Practice	180
Avoiding Dependencies	181
Distributed Teams	183
Summary	188
Additional Reading	188
9 Faster Iterations	189
Where Does Iteration Overhead Come From?	190
Measuring and Displaying Iteration Time	191
Measuring Iteration Times	191
Displaying Iteration Times	191
Personal and Build Iteration	193
Personal Iteration	193
Build Iteration	194
Summary	201
Additional Reading	201
Part IV Agile Disciplines	203
10 Agile Technology	205
The Problems	205
Uncertainty	206
Change Causes Problems	207
Cost of Late Change	207
Too Much Architecture Up Front	209
An Agile Approach	210
Extreme Programming	210
Debugging	216
Optimization	217
Summary	220
Additional Reading	221

11	Agile Art and Audio	223
	The Problems We Are Solving with Agile	223
	Concerns About Agile	225
	Art Leadership	226
	Art on a Cross-Discipline Team	227
	Creative Tension	227
	Art QA	228
	Building Art Knowledge	229
	Overcoming the “Not Done Yet” Syndrome	230
	Budgets	231
	Audio at the “End of the Chain”	232
	Collaboration in Production	232
	Summary	232
	Additional Reading	233
12	Agile Design	235
	The Problems	236
	Designs Do Not Create Knowledge	236
	The Game Emerges at the End	236
	Designing with Scrum	237
	A Designer for Every Team?	237
	The Role of Documentation	238
	Parts on the Garage Floor	239
	Set-Based Design	242
	Lead Designer Role	246
	Designer as Product Owner?	246
	Summary	247
	Additional Reading	247
13	Agile QA and Production	249
	Agile QA	249
	The Problem with QA	250
	Agile Testing Is Not a Phase	251
	The Role of QA on an Agile Game Team	252
	QA, Embedded or in Pools?	254
	How Many Testers per Team?	255
	Using a Bug Database	256
	Play-Testing	256
	The Future of QA	258
	Agile Production	259
	The Role of a Producer on an Agile Project	259
	Producer as ScrumMaster	260

Producer as Product Owner Support	261
Producer as Product Owner	261
The Future of Production	262
Summary	262
Additional Reading	263

Part V Getting Started265

14 The Myths and Challenges of Scrum 267

Silver Bullet Myths	267
Scrum Will Solve All of Your Problems for You	268
Projects Using Scrum Can Always Ship on Time	268
Fear, Uncertainty, and Doubt	269
Endless Development	269
Management Fad	270
The Double Standard	270
Change Is Bad	271
Endless Meetings	272
Scrum Challenges	273
Scrum as a Tool for Process and Culture Change	274
Scrum Is About Adding Value, Not Task Tracking	275
Status Quo versus Continual Improvement	276
Cargo Cult Scrum	277
Scrum Is Not for Everyone	278
Overtime	279
Crunch	279
Summary	281
Additional Reading	282

15 Working with a Publisher 283

The Challenges	284
Focus Comes Too Late	285
Milestone Payments and Collaboration	285
Limited Iteration	287
First-Party Problems	287
Portfolios Drive Dates	287
Building Trust, Allaying Fear	288
The Fears	288
Understanding Agile	289
Publisher-Side Product Owners	289
Meeting Project Challenges Early	291
Managing the Production Plan	292
Allaying the Fears	292

Agile Contracts	293
Iterating Against a Plan	294
Fixed Ship Dates	295
Agile Pre-Production	298
The Stage-Gate Model	298
Summary	300
Additional Reading	300
16 Launching Scrum	301
The Three Stages of Adoption	301
The Apprentice Stage	302
The Journeyman Stage	307
The Master Stage	314
Adoption Strategies	317
Beachhead Teams	317
Full-Scale Deployment	321
Summary	324
Additional Reading	324
CONCLUSION	325
BIBLIOGRAPHY	327
INDEX	329