Table of Contents

Preface	ti ab at wal-t	1
Chapter 1: Post Processing Stack		7
Introduction		7
Installing the Post Processing Stack		8
Getting ready		8
How to do it	CONTRACTOR OF THE PROPERTY OF THE PARTY OF T	9
Getting a filmic look using grain, vignetting, Getting ready	and depth of field	14 15
How to do it		15
How it works		20
Mimicking real life with bloom and anti-alias	See also	21
Getting ready		21
How to do it		21
How it works		24
Setting mood with color grading		24
Getting ready		24
How to do it		25
Creating a horror game look with fog		26
Getting ready		26
How to do it		27
How it works		30
Chapter 2: Creating Your First Shader		31
Introduction		31
Creating a basic Standard Shader		32
Getting ready		
How to do it		35
How it works		38
There's more		39
Adding properties to a shader		40
Getting ready		41
		41
How it works		43
See also		44
Using properties in a Surface Shader		45
How to do it		45
How it works		48
There's more		49

See also	
Chapter 3: Surface Shaders and Texture Mapping	
Introduction	
Diffuse shading	
	5
Getting ready How to do it	
How it works	STATE
	Inapter 1: Post Processi
Accessing and modifying packed arrays	moltoupound 5
How to do it There's more	installing the Post Pro
See also	whom muitted 6
	tinh of world
Adding a texture to a shader	u sloot nimit a maimati 6
Getting ready How to do it	who or position
How it works	ti mis at walk
There's more	delimin di une i-i 6
See also	time will be on marked miles 6
	White on the city and
Scrolling textures by modifying UV values Getting ready	that at wall
How to do it	solvens to world
How it works	In a dillus house made 7
Creating a shader with normal mapping	when reduct
Getting ready	ti nh nt went-i
How to do it	receive to reputing party as an architecture "to
How it works	Address of the second s
There's more	0
Creating a transparent material	O.
Getting ready	8
How to do it	8 rapter 2: Creating Your
How it works	nottoubount 8
Creating a Holographic Shader	8 Creating a basic Stan
Getting ready	9 Getting ready
How to do it	99
How it works	92
There's more	
See also	
Packing and blending textures	Wash and Selection 94
Getting ready	Show it work 96
How to do it	97
How it works	s at estregorg paiet 10
Creating a circle around your terrain	102
Getting ready	103
How to do it	105
Moving the circle	107

How it works		109
Chapter 4: Understanding Lighting Models		111
Introduction		111
Creating a custom diffuse lighting model		112
Getting ready		113
How to do it		114
How it works		116
Creating a toon shader		119
Getting ready		120
How to do it		121
How it works		123
There's more		124
Creating a Phong Specular type		125
Getting ready		126
How to do it		126
How it works		129
Creating a BlinnPhong Specular type	Animating vertices in a !	132
Getting ready	Getting ready	132
How to do it	Li ab at woH	133
How it works	How it works	135
See also	sienous mož bumarats	136
Creating an Anisotropic Specular type	c Getting ready	137
Getting ready	at ob of world	138
How to do it	BYTOW II WOLL	139
How it works	atom a stent	142
Chanter E. Physically Board Bandaring		
Chapter 5: Physically-Based Rendering		145
Introduction		145
Understanding the metallic setup		146
Getting ready	HOW IT WORKS	148
How to do it		149
How it works	Altering the geometry	150
See also	Cale dec	151
Adding transparency to PBR		151
Getting ready	Getting ready	152
How to do it	illow to do it service	152
Semi-transparent materials		153
Fading objects		155
Solid geometries with holes		156
See also	Series T Francisco Strade	157
Creating mirrors and reflective surfaces	nation based	158
Getting ready	an area transit on a few mort and a local to	158
How to do it	The second of th	159
How it works	Ansai Bimiec	161

See also		163
Baking lights in your scene		163
Getting ready		163
How to do it		163
Configuring the static geometry		164
Configuring the light probes		165
Baking the lights		168
How it works		169
See also		
		170
Chapter 6: Vertex Functions		171
Introduction		171
Accessing a vertex color in a Surface Shader		172
Getting ready		172
How to do it		173
How it works		
There's more		175
		176
Animating vertices in a Surface Shader		176
Getting ready	Getting ready	177
How to do it		178
How it works	How it works	180
Extruding your models	See also	181
Getting ready		181
How to do it		182
How it works		183
There's more		184
Adding extrusion maps		184
		186
Getting ready		
How to do it		101
How it works		190
Coloring the surface		190
Altering the geometry		191
See also		192
Implementing a volumetric explosion		
Getting ready		
How to do it		193
Llow it works		195
		197
There's more		199
See also		199
Chapter 7: Fragment Shaders and Grab Passes		201
Introduction		
Understanding Vertex and Fragment Shaders		201
Getting ready		202
		203
How to do it		204

How it works	20)6
There's more	20 How it works	8
Input semantics	20 Using basic Photoshop-like Bland r	8
Output semantics	ybset phitted 20	8
See also	tob of world 20	19
Using the grab pass to draw beh	ind objects 20	9
Getting ready	anom e'enedT 20	9
How to do it	12 Using the Overlay Slend mode with	0
How it works	serve was attended them it ob of world 21	2
There's more	exhow it work 21	3
Implementing a Glass Shader	21	4
Getting ready	21 apter 10: Gameplay and Screen Effe	
How to do it	neitoubornii 21	
How it works	21 Creating an old movie screen effect	
There's more	Cetting ready	
Implementing a Water Shader for		
Getting ready	21 How it works	
How to do it	oals eac 22	
How it works	Creating a night vision screen effect	
Chapter 8: Mobile Shader Adjustme		
Introduction	ahow if worl 22	7
Techniques to make shaders mo	re efficient 22	8
Getting ready	22	8
TIOW to do it	innoeT pulband beonavoA : It leigs 23	0
How it works	noticubount 23	3
i romming your omadoro	23 Using Unity's built-in Colnclude file	6
Getting ready	V0001 0111100 23	7
How to do it	23	8
How it works	24.	3
There's more	24	3
Modifying our shaders for mobile	e on a mi brownedsha thoy granshi 24	4
Getting ready	Voset primed 24	4
How to do it	all ob of worl 24	5
How it works	axhow fi woH 24	8
Chapter 9: Screen Effects with Unity	Render Textures 24	0
Introduction		
Setting up the screen effects scr		
Getting ready	25 There's more	
How to do it	nysms fillw eqemiself philosoflomi 25	
How it works	ybaen gritte 3 25	
There's more	d contract with coreon effects	
Using brightness, saturation, and		
Getting ready	26	4

How to do it	26
How it works	270
Using basic Photoshop-like Blend modes with screen effects	27
Getting ready How to do it	27
How it works	272
There's more	276
Using the Overlay Blend mode with screen effects	277
How to do it	281
How it works	281
amendian a Clean Charles	284
Chapter 10: Gamepiay and Screen Effects	200
Introduction	285
Creating an old movie screen effect	286
Getting ready	287
How to do it semen OS 101 rebert 2 reteW a pritmerne	291
How it works	
See also	300
Creating a night vision screen effect	
Getting ready How to do it	302
How it works	305
There's more	312
	312
Chapter 11: Advanced Snading Techniques	315
Introduction	315
Using Unity's built-in Cglnclude files	316
Getting ready	047
How to do it	318
How it works	320
There's more	320
Making your shader world in a modular way with Cglnclude	321
Getting ready How to do it	
How it works	
Implementing a Fur Shader	
Getting ready	328
How to do it	328
How it works	329
There's more	004
Implementing Heatmaps with arrays	000
Getting ready	331
How to do it	330
How it works	343
Chapter 12: Shader Graph	040
Onapter 12. Onauer Graph	345

Introduction	345
Creating a Shader Graph project	345
How to do it	346
How it works	348
Implementing a simple a Shader Graph	349
Getting ready	349
How to do it	350
How it works	355
Exposing properties to the Inspector via Shader Graph	356
Getting ready	356
How to do it	357
How it works	360
Implementing a glowing highlight system	360
Getting ready	361
How to do it	361
How it works	367
Other Books You May Enjoy	369
Index	373