

Contents

About the Author	xiii
Acknowledgments	xiv
Introduction	xv
CHAPTER 1 An Introduction to mod_rewrite	1
When to Use mod_rewrite	1
“Clean” URLs	2
Mass Virtual Hosting	2
Site Rearrangement	3
Conditional Changes	3
Other Stuff	3
When Not to Use mod_rewrite	4
Simple Redirection	4
More Complicated Redirects	5
Virtual Hosts	6
Other Stuff	6
Summary	6
CHAPTER 2 Regular Expressions	7
The Building Blocks	7
Matching Anything (.)	9
Escaping Characters (\)	9
Anchoring Text to the Start and End (^ and \$)	9
Matching One or More Characters (+)	10
Matching Zero or More Characters (*)	10
Greedy Matching	11
Making a Match Optional (?)	11

Grouping and Capturing (<code>()</code>)	11
Matching One of a Group of Characters (<code>[]</code>)	13
Negation (<code>!</code>)	13
Regex Examples	14
Email Address	14
Phone Number	15
Matching URLs	16
Regex Tools	18
Rebug	19
Regex Coach	20
Summary	20
 ■ CHAPTER 3	
Installing and Configuring <code>mod_rewrite</code>	21
Third-Party Distributions	21
Installing <code>mod_rewrite</code>	22
Static vs. Shared Objects	22
Installing from Source: Static	23
Installing from Source: Shared	23
Enabling <code>mod_rewrite</code> : Binary Installation	25
Testing Whether <code>mod_rewrite</code> Is Correctly Installed	27
If You're Not the System Administrator	28
Enabling the <code>RewriteLog</code>	29
Summary	30
 ■ CHAPTER 4	
The <code>RewriteRule</code> Directive	31
Introducing <code>RewriteRule</code>	31
<code>RewriteRule</code> Syntax	32
<code>RewriteRule</code> Context	32
Rewrite Target	35
<code>RewriteRule</code> Flags	37
Summary	46

CHAPTER 5	The RewriteCond Directive	47
	RewriteCond Syntax	47
	RewriteCond Variables	48
	Time-Based Redirection	50
	RewriteCond Additional Variables	52
	Image Theft	53
	RewriteCond Pattern	53
	Examples	54
	RewriteCond Modifier Flags	55
	Looping	56
	Summary	57
CHAPTER 6	The RewriteMap Directive	59
	RewriteMap Syntax	59
	Map Types	59
	txt Map Files	60
	Randomized Rewrites	62
	Hash-Type Maps	64
	External Programs	66
	Internal Functions	67
	Summary	67
CHAPTER 7	Basic Rewrites	69
	Adjusting URLs	69
	Problem: We Want to Rewrite Path Information to a Query String (Example 1)	69
	Problem: We Want to Rewrite Path Information to a Query String (Example 2)	70
	Problem: We Want to Rewrite Path Information to a Query String (Example 3)	71
	Problem: We Have More Than Nine Arguments	72

Renaming and Reorganization	73
Problem: We've Switched from ColdFusion to PHP, but We Want All Old URLs to Continue Working	73
Problem: We're Looking in More Than One Place for a File	74
Problem: Some of Our Content Is on Another Server	75
Problem: We Require a Canonical Hostname	75
Problem: We're Viewing the Wrong SSL Host	76
Problem: We Need to Force SSL	77
Summary	77

■ CHAPTER 8 **Conditional Rewrites**

Looping	79
Date- and Time-Based Rewrites	81
Problem: We Want to Show a Competition Website Only During a Competition	81
Redirecting Based on Client Conditions	83
Problem: We Want to Redirect Users Based on Their Browser Type	83
Problem: We Want to Send External Users Elsewhere	84
Problem: We Want to Serve Different Content Based on the User's Username	84
Problem: We Want to Force Users to Come Through the Front Door	85
Problem: We Want to Prevent Users from Uploading PHP Files to an Unload Area and Then Executing Them	86
Problem: The Client Certificate Validation Error Message Is Indecipherable	87
Summary	87

■ CHAPTER 9 **Access Control**

When Not to Use mod_rewrite	89
Address-Based Access Control	89
Environment Variable–Based Access Control	90

Access Control with mod_rewrite	91
Problem: We Want to Deny Access to a Particular Directory	91
Problem: We Want to Deny Access to Several Directories at Once	93
Simple Client-Based Access Control	94
Problem: We Want to Block a Spider from Hammering Our Website	94
Problem: We Want to Prevent “Image Theft”	95
Summary	97
 ■ CHAPTER 10 Virtual Hosts	 99
Virtual Hosts the Old-Fashioned Way	99
Configuring Virtual Hosts with mod_vhost_alias	101
www.example.com works, but example.com Doesn’t	102
There Are Too Many Directories	103
This Approach Breaks My Other Virtual Hosts	104
Logging	104
It’s Too Inflexible	104
Mass Virtual Hosting with mod_rewrite	104
Rewriting Virtual Hosts	105
Virtual Hosts with RewriteMap	108
Logging for Mass Virtual Hosts	109
Splitting the Log File	110
Using Piped Log Handlers	110
Summary	111
 ■ CHAPTER 11 Proxying	 113
Proxy Rewrite Rules	113
Security	114
Apache 1.3	115
Apache 2.0	115
Proxying Without mod_rewrite	116

Proxying with mod_rewrite	117
Proxying a Particular File Type	117
Proxying to an Application Server	118
Modifying Proxied Content	118
Excluding Content from the Proxy	119
Looking Somewhere Else	120
Summary	121
 ■ CHAPTER 12 Debugging	123
RewriteLog	123
A Simple RewriteLog Example	124
Loop Avoidance	126
RewriteRule in .htaccess Files	128
Regex Building Tools	130
Summary	132
 ■ APPENDIX Additional Resources	133
Online Resources	133
Books	133
PCRE Documentation	134
 ■ INDEX	135