Practical Rails Plugins

Nick Plante and David Berube

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To my wife, Amanda, for . . . well, you know . . . everything.
—nap

To my parents.

—David Berube

Contents at a Glance

About the Technica Acknowledgments	XVII XVII XXII XXII XXII XXII XXIII XXIIII XXIII XXIII XXIIII XXIIII XXIIII XXIIII XXIIII XXIII XXIII XXII
PART 1	Introduction to Plugins for Ruby on Rails
CHAPTER 1	The Power of Rails Plugins
PART 2	Model Enhancement
CHAPTER 2	Web 2.0 Tagging with Acts As Taggable
CHAPTER 3	Uploading Images and Generating Thumbnails with Attachment Fu41
CHAPTER 4	Versioning Database Models with Acts As Versioned61
CHAPTER 5	Adding a Five-Star Ratings Widget with Ajaxful Rating
CHAPTER 6	Modeling State Machines
CHAPTER 7	Validating Data with Various Plugins111
PART 3	Controller Enhancement
CHAPTER 8	Easy Production-Ready Ajax Scaffolds with ActiveScaffold 121
CHAPTER 9	Content Management and User Navigation with Comatose and Tabnav
CHAPTER 10	Payment Processing with ActiveMerchant
PART 4	Login/Security Plugins
CHAPTER 11	Extensible User Authentication
CHAPTER 12	Supporting OpenID Authentication
CHAPTER 13	Enforcing Privilege Separation with an Authorization DSL $\dots 207$

PARI 5	Search and Query Plugins
CHAPTER 14	Mapping and Geocoding with the YM4R and GeoKit Plugins 227
CHAPTER 15	Paginating Active Record Data241
CHAPTER 16	Full Text Search with Sphinx
DADT 0	D (
PARI 6	Performance Optimization Plugins
CHAPTER 17	Enhancing Web Site Performance with Cache Fu271
CHAPTER 18	Managing Complex Background Processes with
	Workling and Starling283
PART 7	■ View/UI Enhancement
CHAPTER 19	Creating Lightbox Image Galleries with the
CHARTER 20	Lightbox Helper and Flickraw
CHAPTER 20	Beautifying HTML Templates with Haml and Sass
CHAPTER 21	Graphing and Charting with CSS Graphy and ZiYa331
CHAPTER 22	Safe User Templating with Liquid
CHAPTER 23	Creating Dynamic, Reusable Web Application Sidebars357
CHAPTER 24	Quick PDF Generation with RTex
PART 8	Testing with Plugins
CHAPTER 25	Testing Code Coverage with Rcov
CHAPTER 26	Behavior-Driven Development with RSpec 399
CHAPTER 27	Preventing Validation Errors with Assert Valid Asset
	- Division Development Otrotonics
PARI 9	Plugin Development Strategies
CHAPTER 28	Creating and Distributing Your Own Plugins441
- INDEV	
INDEX	

Contents

About the Technic Acknowledgment	ssal Reviewerssss	xix xxi
PART 1 =	Introduction to Plugins for Ruby on Rails	
CHAPTER 1	The Power of Rails Plugins	. 3
	What Can Plugins Do for You? Managing a Wealth of Plugins. Finding Available Plugins Installing Plugins Updating and Removing Plugins Accessing Documentation and Tests Versioning Plugins Discovering Plugins. Summary.	. 4 . 5 . 8 13 14 16
PART 2	Model Enhancement	
CHAPTER 2	Web 2.0 Tagging with Acts As Taggable	21
	Our Task: Enable User-Categorized Content by Adding Tagging Capabilities Building Taggable Arcade Resource Links Constructing the Arcade Resource Link Model Creating Sample Data with the Rails Console. Adding Tags to the Web Application Creating Taggable Resources Adding a Layout	22 23 25 26 27

	Navigating with Tags Adding Clickable Tag Links Building a Tag Cloud Summary.	36
CHAPTER 3	Uploading Images and Generating Thumbnails with Attachment Fu	41
	Our Task: Manage Scanned Images with Attachment Fu Creating the Document Manager	44
	Using Attachment Fu in the Document Model	51
	Summary	59
CHAPTER 4	Versioning Database Models with Acts As Versioned	61
	Our Task: Manage Inventory with Acts As Versioned Building the Car Lot Inventory System	62
	Using Acts As Versioned in the Woder Using Acts As Versioned in the Views Using Acts As Versioned in the Views	65
	Running the Inventory Application	
CHAPTER 5	Adding a Five-Star Ratings Widget with Ajaxful Rating	77
	Our Task: Add Community Ratings to an Existing Application Adding Ratings to Arcade Resources	
	Rating Arcade Links	
	Attributing Ratings to a User (Rater)	
	Rating Arcade Links in the Rails Console	82
	Building an Ajax-Enabled Star Rating System	
	Sorting Links by Popularity (Average Ratings)	
	Adding the Five-Star Ratings Widget	
	Improving Performance by Caching Average Ratings	
	Summary	92

CHAPTER 6	Modeling State Machines93
	Our Task: Model the Conference Proposal Process.94Modeling with Multiple States.95Creating a Conference Talk Model95Managing Conference E-Mail Updates with ActionMailer99Testing the Conference Proposal System101Building a Web Interface103Facilitating State Transitions106Listing Conference Proposals108Summary.109
CHAPTER 7	Validating Data with Various Plugins111
PART 3 =	Our Task: Validate a Complex Form Using Rails Plugins 111 Creating the Software Projects Model 112 Testing the Plugins 113 Implementing the Validation Plugins 115 Summary 118 Controller Enhancement
CHAPTER 8	Easy Production-Ready Ajax Scaffolds with ActiveScaffold
	Our Task: Create an Events Calendar with ActiveScaffold121Creating the Models122Creating the Controllers124Running the Events Calendar Application128Summary130
CHAPTER 9	Content Management and User Navigation with Comatose and Tabnav
	Our Task: Add a Lightweight Content Management Solution and Tabbed Navigation

	Adding Navigation Elements	137 140 142
CHAPTER 10	Payment Processing with ActiveMerchant	145
	Our Task: Allow Quick and Easy Electronic Payments Preparing to Process Payments Creating the Pizza and Order Models. Processing Payments in a Controller Displaying the New Order Form Creating an Order Processing the Payment. Monitoring New Orders Summary.	
PART 4	Login/Security Plugins	
PART 4 CHAPTER 11	■ Login/Security Plugins Extensible User Authentication	169
	Extensible User Authentication Our Task: Create a User Wish List System Generating an Authentication System Adding the User Wish List Building the Wish Model Adding the Wishes Controller. Creating Wishes View Templates Adding a List of Users and a Layout. Implementing CAPTCHA	

	Updating Our Application for OpenID196Updating the User Model196Updating the Sessions Controller197Adding OpenID Login Views203Logging In with OpenID204Summary206
CHAPTER 13	Enforcing Privilege Separation with an Authorization DSL 207
PART 5 ■	Our Task: Create a Job Interview Framework with Access Controls
CHAPTER 14	Mapping and Geocoding with the YM4R and
	GeoKit Plugins227
	Our Task: Locate Nearby Hiking Trails.228Preparing the Trail Finder Application228Modeling Hiking Trail Data.229Obtaining USGS Trail Data229Creating the Trail Model229Parsing and Importing USGS Data231

CHAPTER 15	Paginating Active Record Data	241
	Our Task: Aggregate (and Paginate!) News Feeds	
	Preparing the Feed Aggregator Application	
	Creating the FeedItem Model	
	Obtaining Feed Item Data	
	Creating a Rake Task for Scripting Updates	
	Displaying Feed Items with Pagination	
	Styling the Paginator	
	Summary	253
CHAPTER 16	Full Text Search with Sphinx	255
	Our Task: Create a Searchable Archive of Movie Goofs	255
	Preparing the Movie Goofs Database	256
	Obtaining Goof Data from IMDb	257
	Creating Our Movie and Goof Models	258
	Parsing Movie Goof Data	260
	Building a Searchable Interface	262
	Running with Sphinx's Search Daemon	264
	Sphinx Advantages—Flexible and Fast	266
	Summary	268
PART 6 CHAPTER 17	■ Performance Optimization Plugi Enhancing Web Site Performance with Cache Fu	
	Our Task: Benchmark a Music Preferences Project	272
	Preparing for the Cache Fu Example	
	Building the Benchmarking Application	
	Generating the Models	
	Loading Test Data into the Database	
	Mocking Up a Simple Test Controller	
	Running the Benchmarks	
	Summary	

CHAPTER 18	Managing Complex Background Processes with Workling and Starling	. 283
	Our Task: Transcode Video Uploads for Flash Media Playback	. 284
	Creating a Video Transcoding Service	
	Creating the Video Model	. 285
	Creating the Videos Controller	. 288
	Testing Synchronous Transcodes	
	Asynchronous Transcoding	
	Setting Up Asynchronous Workers	
	Updating the Controller	
	Testing Asynchronous Transcodes	
	Summary	. 301
PART 7	View/UI Enhancement	
CHAPTER 19	Creating Lightbox Image Galleries with the	
	Lightbox Helper and Flickraw	. 305
	Our Task: Create a Lightbox-Enabled Image Gallery	. 306
	Creating the Photo Gallery	
	Retrieving Photos from Flickr with Flickraw	. 308
	Adding a Lightbox Effect to View Templates	. 309
	Summary	
CHAPTER 20	Beautifying HTML Templates with Haml and Sass	. 313
	Our Task: "Haml-ize" a Layout and DRY Up CSS	. 313
	Preparing for the Template Project	
	Haml: The Basics	. 315
	Losing the HTML Tags	. 317
	Embedding Ruby in Haml	. 318
	Reducing Clutter	. 318
	Porting a Web Site Template to Haml	. 319
	A Few More Haml Conventions	. 321
	Updating the Index Action Template	. 322

	Sass: The Basics Cleaning Up Nested Styles Using Constant Values Porting a Style Sheet to Sass Summary.	323
CHAPTER 21	Graphing and Charting with CSS Graphy and ZiYa	331
	Our Task: Analyze Publishing Trends with Graphs	
	Creating CSS Graphs with CSS Graphy	338
	Adding the Authors Action and View	342
	Summary	346
CHAPTER 22	Safe User Templating with Liquid	347
	Our Task: Create a User Templating System	
	Setting Up the Liquid Example Project	349
	Creating the Profile Controller	
	Constructing the Views Testing the Liquid Example	
	Summary	
CHAPTER 23	Creating Dynamic, Reusable Web Application	
	Sidebars	357
	Our Task: Define a Sidebar Solution	
	Preparing a Sample Application for Sidebars	
	Building a Truly Simple Sidebar Embedding the Sidebar in a Layout	
	Filtering Options	
	Enabling User Authentication with Login Sidebars	
	Using Conditional Logic to Display Sidebars	
	Using Component Rendering in a Sidebar	
	Summary	369

CHAPTER 24	Quick PDF Generation with RTex371
	Our Task: Automate Creation of Overdue Billing Notices372Preparing for the Overdue Billing Application373Building the Overdue Billing Application373Creating the Customer and Invoice Models374Adding Some Data375Creating the Billing Controller376Using RTex Views377Testing the Billing Application381Summary383
PART 8	Testing with Plugins
CHAPTER 25	Testing Code Coverage with Rcov 387
	Our Task: Check Code Coverage in a Rails Application387Using Rcov to Test Coverage of a Ruby Script388Using Rcov in a Rails Application393Summary398
CHAPTER 26	Behavior-Driven Development with RSpec399
	Our Task: Write Some Useful Specs.400Bootstrapping an RSpec Project.401Petition Model Specs.402Understanding Basic Model Specs.403Specifying Our Model Behaviors.405Passing Model Specs.408Signatures Controller Spec.411Mocking and Stubbing.413Specifying Our Controller Behaviors.415Passing Controller Specs.417Signatures View Specs.418Specifying Our View Behaviors.419Passing View Specs.420Summary.422
	Summary

CHAPTER 27	Preventing Validation Errors with Assert Valid Asset	425
	Our Task: Integrate Validation Tests	427
	Creating the Validation Example	427
	Detecting Invalid Markup	
	Detecting Invalid CSS	
	Summary	438
PART 9	Plugin Development Strategies	
CHAPTER 28	Creating and Distributing Your Own Plugins	441
	Our Task: Whitelist IP Addresses	441
	Creating the IP Whitelisting Functionality	442
	Creating the IP Whitelist Plugin	443
	Generating the Plugin Structure	444
	Creating the IpWhitelist Module	446
	Testing Plugins	448
	Distributing Plugins	450
	Using Subversion (Google Code)	451
	Using Git (GitHub)	453
	Other Plugin Distribution Resources	455
	Extending the IP Whitelist Plugin	455
	Summary	457
INDEX		450

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Nick Plante and David Berube

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Nick Plante

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David Berube

Introduction

his is a book about Ruby on Rails and the Rails plugin system. But it's also a book about sharing, code reuse, and learning by example. Being the savvy, tuned-in Ruby developer you are, you already know that some incredibly awesome open source libraries and code snippets are available to help you accelerate your development projects. Much of this code is published through the Ruby Gems package system. However, code that is intended to modify or enhance the popular Ruby on Rails web framework is usually made available through its own convenient plugin system. These plugins serve a variety of purposes, and the framework makes it easy to package and distribute these extensions, all without making actual changes to Rails itself!

In this book, you'll find examinations of what we feel are some of the most powerful third-party extensions for Rails. If we've left out your favorite plugin, know that it wasn't an easy choice! We started with a list of more than 60 different plugins that we've used and enjoyed in various Rails projects and (with much consternation) whittled that down to what you see here. We picked those that felt the most practical for beginning to intermediate-level Rails developers.

In addition to showcasing some of the best Rails plugins, our other goal was to deliver a set of recipes for functional mini-applications. We've observed that most "recipe" books for Ruby and Rails are focused on the advanced user, delivering quick snippets and explanations about how to use a particular technique within an existing project. Although we feel that their approach is extremely useful (and own a number of these books ourselves), it isn't particularly well suited to developers who are new to the framework. Therefore, we wanted to spend a little extra time putting plugins within a real-world context, using them to build something tangible and immediately accessible to developers of all skill levels.

We hope that you'll find these projects to be an interesting way to explore the power of Rails plugins, and that they help you see how you can use plugins to accelerate the development of your own projects.

What's Included

The mini-applications we'll be building are intended to be showcases for the plugins that they utilize. Therefore, we won't concern ourselves too much with performance optimization, database tuning, or testing during the bulk of our chapter examples (unless the plugins we're discussing themselves focus on one of those areas!). This isn't to say that we feel those subjects aren't important; we very much do. When we're developing applications for our clients, for example, we always take a test-driven (or behavior-driven) approach, and we think that you probably should, too.

The plugins and examples we'll talk about are grouped together by their purpose or subject area:

- Plugins that modify and extend your application's *models* are discussed in Chapters 2 through 7.
- Plugins that operate at the *controller* level and affect the request/response cycle are discussed in Chapters 8 through 10.
- Plugins that deal with login and security concerns are the focus of Chapters 11 through 13.
- Plugins for searching and querying are covered in Chapters 14 through 16.
- Plugins to help you optimize your application's performance are covered in Chapters 17 and 18.
- Plugins that affect your application's views are discussed in Chapters 19 through 24.
- Plugins that change the way you test your code are the focus of Chapters 25 through 27.

We've tried to spend a good deal of time in each area in order to give you a taste of the different kind of functionality that plugins can provide.

The first and last chapters break from the mini-project per-chapter convention in order to provide an introduction to the plugin system itself and a brief tutorial on developing your own plugins, respectively.

What You Should Know

Although we've written the book with the beginning Rails developer in mind, we do make some basic assumptions about your familiarity with Rails concepts. We assume that you understand the basics of the Model-View-Controller (MVC) pattern and web frameworks in general, that you're familiar with HTML, and that you know the structure of a Rails project and basic Ruby syntax. In order to get right to the meat of the powerful features enabled by these plugins, we'll be skipping over these basics.

If you're unfamiliar with Rails, there are a number of great books already published that serve as excellent introductions. *Beginning Rails* by Jeffrey Allan Hardy, Cloves Carneiro Jr., and Hampton Catlin (Apress, 2007) and *Agile Web Development with Rails* by Dave Thomas and David Heinemeier Hansson (Pragmatic Bookshelf, 2006) are both highly recommended. David Black's *Ruby for Rails* (Manning, 2006) is also a fantastic title that will not only familiarize you with Ruby, but also teach you how Rails makes use of Ruby's metaprogramming capabilities. This will come in very handy if you plan

on writing your own plugins or extensions to the framework. We touch on these topics briefly in the final chapter of this book, but our discussion is merely meant as a starting point and is specific to plugins. To really embrace the power of Ruby, you'll want to dive in further!

Code Requirements and Resources

All the examples in this book were tested using Ruby 1.8.6 with Rails 2.1 and, unless otherwise noted, should also work with Rails 2.0.2. Most examples were created using the SQLite 3 database engine as a back end, except when more advanced database features were needed (for instance, for the geocoding examples in Chapter 14); for those cases, we used MySQL 5.x. You'll need at least a passing familiarity with these technologies to get the most out of this book.

Having a basic understanding of the Subversion version control system will help, too. Note that we've also included several plugins whose most recent versions are available via the Git version control system rather than Subversion. Since Git plugin support was only recently introduced in Rails 2.1, there may be additional steps required for installing some of the plugins when using Rails 2.0.2. Don't worry—whenever this is the case, we'll let you know.

Be aware that the Rails world moves fast, and that plugins, like all good software, are often improved and refactored. Many of the contributions we've profiled here are very stable and pillars of the Rails plugin system, but a number of them represent newer upstarts and may change over time, just as the framework will. The README files and RDoc-based documentation provided with a plugin are always the definitive source of information about that plugin, so when in doubt, make sure to check the documentation.

Full source code for all the examples featured in this book, including the plugins themselves, can be found at http://railsplugins.com. If you have trouble installing any plugin found at a third-party web site or source code repository, we suggest downloading the code from the http://railsplugins.com site. Project archives will contain both the sample applications and the plugin code we've used. Additionally, all source code is available from the Source Code/Downloads area of the Apress web site (http://apress.com). Any errata can be found there as well.