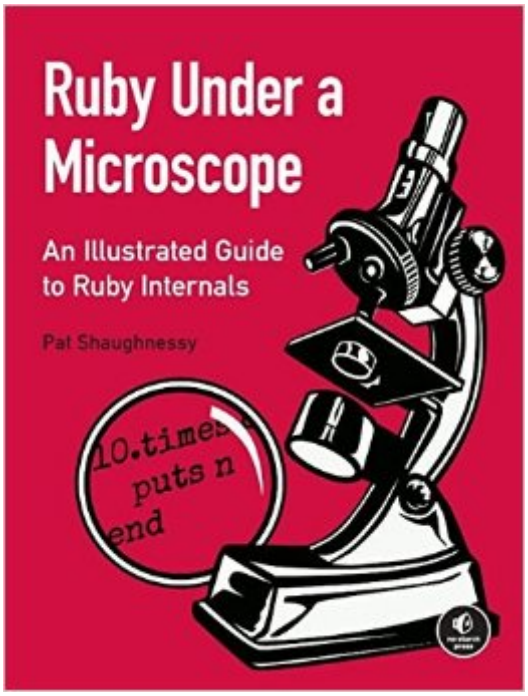
Ruby Under A Microscope: An Illustrated Guide To Ruby Internals



Synopsis

Ruby is a powerful programming language with a focus on simplicity, but beneath its elegant syntax it performs countless unseen tasks.Ruby Under a Microscope gives you a hands-on look at Ruby's core, using extensive diagrams and thorough explanations to show you how Ruby is implemented (no C skills required). Author Pat Shaughnessy takes a scientific approach, laying out a series of experiments with Ruby code to take you behind the scenes of how programming languages work. You'll even find information on JRuby and Rubinius (two alternative implementations of Ruby), as well as in-depth explorations of Ruby's garbage collection algorithm.Ruby Under a Microscope will teach you:How a few computer science concepts underpin Ruby's complex implementationHow Ruby executes your code using a virtual machineHow classes and modules are the same inside RubyHow Ruby employs algorithms originally developed for LispHow Ruby uses grammar rules to parse and understand your codeHow your Ruby code is translated into a different language by a compilerNo programming language needs to be a black box. Whether you're already intrigued by language implementation or just want to dig deeper into Ruby, you'll find Ruby Under a Microscope a fascinating way to become a better programmer. Covers Ruby 2.x, 1.9 and 1.8

Book Information

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Customer Reviews

Ruby has become a major player in application and (by extension) Web development due to the easy to acquire skills to use the language, the expansive library sets due to the open source nature and the integration and support on nearly any platform.Me, being a Windows OS guy, I look to major

references like Microsoft Pressâ ™ â œWindows Internalsâ • to understand how things really work â “ not just at the surface â “ but why something does what it does. For example, if the distributed processing calls (DPC) result in interrupts consuming the processor, I know Iâ ™m usually looking at a driver or hardware problem.â œRuby â “ Under a Microscopeâ • is much like â œWindows Internalsâ • in that the how and why of Ruby is revealed.What should be clear from the idea of an in-depth, deep technical details book â “ this isnâ ™t for the beginner, like Microsoft Pressâ ™ â œWindows Internalsâ • isnâ ™t for the newbie Windows OS user. If you donâ ™t know what DPCs are and what they do â “ knowledge of DPCs is pretty much useless. To get the full value from this book, you should already be an experienced Ruby programmer (or have depth in similar languages). What the experienced developer will get from this book is the details that will allow them to extract more power from Ruby, better understanding of why things happen, and how to better use Ruby to solve the really hard problems.Now that weâ ™re past the â œwho this book is forâ • part, there is one more thing to understand before you decide that this is of value to you: Exactly WHICH Ruby are we talking about? Yes, Ruby is available on nearly all platforms.

Let’s start with a disclaimer. I’m not a Computer Science major, nor did I complete a Computer Science course of study in school. I’m a software tester, and one that finds themselves frequently using programming languages of various stripes for various purposes. Ruby is one of the most popular languages in current use, and for many, it’s a language that allows them to learn some basic terms, some programming constructs, and then lets them just use it. It’s clean, it’s elegant, it’s almost simple. It’s a language that invites the user to just go with it.For some, though, there’s that sense of curiosity... what is my Ruby program really doing? How can I see what the system is actually doing with my code? What’s going on underneath the hood? If such explorations interest you, then "Ruby Under a Microscope" by Pat Shaughnessy tackles that subject handily.A word of warning going in. This is not a general language book. You will not learn much about programming in Ruby here. You should have a decent understanding of what Ruby syntax looks like and how it works. Having said that, you don’t need to have years of experience with Ruby to appreciate this book for what it does. It takes some key areas of the language, and through examples, some small programs, and a variety of tools, lets you see and understand what Ruby actually looks like up close and personal.Chapter 1 focuses on how Ruby understand the text that you type into your Ruby program. Ruby converts your source code first into tokens, and then converts that input stream into an "abstract syntax treeâ •. Through tools like â œRipperâ •, you can see this process and watch it in something resembling natural language (well, kind of.

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