# Rocky Mountain Software Symposium

Denver Marriott South @ Park Meadows

November 20 - 22, 2009

http://www.nofluffjuststuff.com/conference/denver/2009/11/home

| Fri, Nov. 20, 2009 | | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 12:00 - 1:00 PM | REGISTRATION | | | |
| 1:00 - 1:15 PM | WELCOME | | | |
| 1:15 - 2:45 PM | Building External DSLs<br>Venkat Subramaniam | Real-world JEE performance tuning: Tips n' Tricks<br>Pratik Patel | Groovy XML Ninja Skills<br>Scott Davis | The Busy Java Developer's Guide to Collections<br>Ted Neward |
| 2:45 - 3:15 PM | BREAK | | | |
| 3:15 - 4:45 PM | Effective Java<br>Venkat Subramaniam | Enterprise JPA & Spring 3.0 - Tips and Tricks for JEE5 Persistence<br>Pratik Patel | Dim Sum Grails: A Sampler of Practical Non Database-Driven Grails Applications<br>Scott Davis | The Busy Java Developer's Guide to Functional Java<br>Ted Neward |
| 4:45 - 5:00 PM | BREAK | | | |
| 5:00 - 6:30 PM | Cleaning up Code Smell<br>Venkat Subramaniam | Virtualization for development<br>Pratik Patel | RESTful Grails<br>Scott Davis | The Busy Java Developer's Guide to Advanced Collections<br>Ted Neward |
| 6:30 - 7:15 PM | DINNER | | | |
| 7:15 - 8:00 PM | Keynote: by Ted Neward | | | |

| Sat, Nov. 21, 2009 | | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 8:00 - 9:00 AM | BREAKFAST | | | |
| 9:00 - 10:30 AM | Programming Scala<br>Venkat Subramaniam | Spring 3.0 Overview<br>Scott Leberknight | JSF 2.0: An Introduction<br>David Geary | Emergent Design & Evolutionary Architecture<br>Neal Ford |
| 10:30 - 11:00 AM | BREAK | | | |
| 11:00 - 12:30 PM | Tackling Concurrency on the JVM<br>Venkat Subramaniam | Groovier Spring (More Flexible Applications With Spring and Groovy)<br>Scott Leberknight | JSF 2.0: Advanced Topics<br>David Geary | Visualizations for Code Metrics<br>Neal Ford |
| 12:30 - 1:30 PM | LUNCH | | | |
| 1:30 - 3:00 PM | Test Driven Design<br>Neal Ford | Real World Hibernate Tips (Reloaded)<br>Scott Leberknight | GWT fu, Part 1<br>David Geary | The Busy Java Developer's Guide to JMS<br>Ted Neward |
| 3:00 - 3:15 PM | BREAK | | | |
| 3:15 - 4:45 PM | Easy mobile development (IPhone, Android, Palm Pre, Blackberry) without native code<br>Pratik Patel | Polyglot Persistence<br>Scott Leberknight | GWT fu, Part 2<br>David Geary | The Busy Java Developer's Guide to Advanced JMS<br>Ted Neward |
| 4:45 - 5:45 PM | BIRDS OF A FEATHER SESSION | | | |

| Sun, Nov. 22, 2009 | | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 8:00 - 9:00 AM | BREAKFAST | | | |
| 9:00 - 10:30 AM | Java Memory, Performance and the Garbage Collector<br>Ken Sipe | Git Going with Distributed Version Control<br>Matthew McCullough | Flex and Java integration<br>Shashank Tiwari | REST : Web Architecture for Rich Clients<br>Brian Sletten |
| 10:30 - 11:00 AM | MORNING BREAK | | | |
| 11:00 - 12:30 PM | Debugging your Production JVM<br>Ken Sipe | Real-world Refactoring<br>Neal Ford | Flex and Hibernate<br>Shashank Tiwari | RDFA : Weaving Richness and Meaning in the Web<br>Brian Sletten |
| 12:30 - 1:15 PM | LUNCH | | | |
| 1:15 - 2:15 PM | EXPERT PANEL DISCUSSION | | | |
| 2:15 - 3:45 PM | Hacking - The Dark Arts<br>Ken Sipe | Open Source Debugging Tools for Java<br>Matthew McCullough | Collaborative real-time RIA<br>Shashank Tiwari | SPARQL : Querying the Web of Data<br>Brian Sletten |
| 3:45 - 4:00 PM | BREAK | | | |
| 4:00 - 5:30 PM | Security Code Review<br>Ken Sipe | Open Source Debugging Tools for Web Apps<br>Matthew McCullough | Communication Skills for Knowledge Workers<br>Neal Ford | Semantic Web : Rich Data for Rich Clients<br>Brian Sletten |

# Rocky Mountain Software Symposium

**-Session Schedule-**

(event schedule as of November 18, 2009)

## Friday, Nov. 20

12:00 - 1:00 PM : REGISTRATION

1:00 - 1:15 PM : WELCOME

1:15 - 2:45 PM - Sessions

### Session #1 : Building External DSLs by Venkat Subramaniam

Domain Specific Languages (DSLs) are languages targeted at a particular problem and domain. They have context and are fluent. They help users of applications at various levels to easily communicate with your application. Developing DSLs, however, are not easy. You could easily get dragged into using parsers and tools with steep learning curve.

### Session #2 : Real-world JEE performance tuning: Tips n' Tricks by Pratik Patel

Performance tuning any application is a black art that can consume much time. Fortunately, Java has many tools that can aid in this effort. There also are a number of basic tips that can help to analyze and fix performance problems. The Java memory model is usually something that you don't need to tune, but for high performance applications it is necessary to tweak. While there are a number of advanced things that can be done to performance tune an application, we'll discover that the simple, basic things are all that are usually needed to make your apps fly.

### Session #3 : Groovy XML Ninja Skills by Scott Davis

"XML is like violence: if it doesn't solve your problem, you aren't using enough of it." (Anonymous) XML is everywhere. Whether you are dealing with local configuration files (web.xml, struts-config.xml) or remote web services (SOAP, REST, RSS, Atom), the modern software developer needs to be able to request, slice, and dice XML with ease. That requires a set of razor-sharp tools that reduce the inherent complexity of the problem, not multiply it. Once you see XML tremble in fear at the awesome power of Groovy, you'll wonder what you ever did without it.

### Session #4 : The Busy Java Developer's Guide to Collections by Ted Neward

For so many Java developers, the java.util.* package consists of List, ArrayList, and maybe Map and HashMap. But the Collections classes are so much more powerful than many of us are led to believe, and all it requires is a small amount of digging and some simple exploration to begin to "get" the real power of the Collection classes.

2:45 - 3:15 PM : BREAK

3:15 - 4:45 PM - Sessions

### Session #5 : Effective Java by Venkat Subramaniam

Java is a well established language, that has been around for more than a decade. Yet, programming on it has its challenges. There are concepts and features that are tricky. When you run into those, the compiler is not there to help you.

### Session #6 : Enterprise JPA & Spring 3.0 - Tips and Tricks for JEE5 Persistence by Pratik Patel

As with many technologies, the basics are easy. The hard part comes when the developer needs to do sophisticated integration, development, and testing as part of an enterprise application. A large enterprise application requires the developer to think of issues that affect the development, scalability and robustness of the application. This presentation will cover the advanced topics described below with a focus on the new persistence features in Spring 3.0 and JPA 2.0.

### Session #7 : Dim Sum Grails: A Sampler of Practical Non Database-Driven Grails Applications by Scott Davis

"The proof of the pudding is in the eating. By a small sample we may judge of the whole piece." (Miguel de Cervantes Saavedra) Most Grails tutorials demonstrate how easy it is to build simple CRUD (Create/Retrieve/Update/Delete) applications. While skinning a database with a web front-end is undeniably one beneficial aspect of Grails, it isn't the only thing Grails is good for. As you'll see here, Grails can be used to build a wide variety of web applications. You won't see a single HTML table with "edit" and "delete" links, I promise.

### Session #8 : The Busy Java Developer's Guide to Functional Java by Ted Neward

Much noise has been made in recent years about functional languages, like Scala or Haskell, and their benefits relative to object-oriented languages, most notably Java. Unfortunately, as wonderful as many of those benefits are, the fact remains that most Java developers will either not want or not be able to adopt those languages for writing day-to-day code. Which leaves us with a basic question: if I can't use these functional languages to write production code, is there any advantage to learning about them? The short answer is yes, for the fundamental premise--"I can't use functional code on my Java project"--is flawed. Java developers can, in fact, make use of functional ideas, and what's better, they don't even have to reinvent them for Java--thanks to the FunctionalJava library, many of the core primitives--interfaces that serve as base types for creating function values, for example--already exist, ready to be used.

4:45 - 5:00 PM : BREAK

# Rocky Mountain Software Symposium

**-Session Schedule-**

(event schedule as of November 18, 2009)

5:00 - 6:30 PM - Sessions

### Session #9 : Cleaning up Code Smell by Venkat Subramaniam

Projects often start out simple, but soon become complex and turn into a lose cannon. Organizations are struggling to maintain and evolve software. Poor code quality is a significant part of that problem. Improving the quality of code is critical to success of enterprise projects.

### Session #10 : Virtualization for development by Pratik Patel

We've all heard about virtualization for deploying applications. How about leveraging virtualization for development? In this session, we'll look at some time saving tips and build a virtual VM for development and testing.

### Session #11 : RESTful Grails by Scott Davis

"Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius - and a lot of courage - to move in the opposite direction." (Albert Einstein) REST and Resource-Oriented Architecture (ROA) are popping up in technical discussions more and more frequently. Here, you'll see practical examples of adding RESTful web services to your Grails application.

### Session #12 : The Busy Java Developer's Guide to Advanced Collections by Ted Neward

Once you've learned the core Collections clases, you're done, right? You know everything there is to know about Collections, and you can "check that off" your list of Java packages you have to learn and know, right? ***Prerequisite:*** *Busy Java Developer's Guide to Collections*

6:30 - 7:15 PM : DINNER

Keynote: The Busy Developer's Guide to Iconoclasm - Ted Neward

## Saturday, Nov. 21

8:00 - 9:00 AM : BREAKFAST

9:00 - 10:30 AM - Sessions

### Session #13 : Programming Scala by Venkat Subramaniam

Scala is a static fully object-oriented, functional language on the JVM. While taking advantage of the functional aspects, you can continue to make full use of the powerful JVM and Java libraries.

### Session #14 : Spring 3.0 Overview by Scott Leberknight

The Spring framework has simplified Java enterprise and web development since 2003, and has been a major innovator in improving and simplifying Java server-side programming since its inception. This session will look at the new features in Spring 3.0 as well as what's being removed from the Spring core.

### Session #15 : JSF 2.0: An Introduction by David Geary

This session introduces JSF 2.0 fundamentals, with emphasis on new features in JSF 2.0. ***Prerequisite:*** *Familiarity with JSF, or other component-based frameworks*

### Session #16 : Emergent Design & Evolutionary Architecture by Neal Ford

Most of the software world has realized that BDUF (Big Design Up Front) doesn't work well in software. But lots of developers struggle with this notion when it applies to architecture and design. Surely you can't just start coding, right? You need some level of understanding before you can start work. This session describes the current thinking about emergent design & evolutionary architecture, including both proactive (test-driven development) and reactive (refactoring, composed method) approaches to discovering design. The goal of this talk is to provide nomenclature, strategies, and techniques for allowing design to emerge from projects as they proceed, keeping you code in sync with the problem domain.

10:30 - 11:00 AM : BREAK

11:00 - 12:30 PM - Sessions

### Session #17 : Tackling Concurrency on the JVM by Venkat Subramaniam

In this presentation we will take a quick walk though the issues with concurrency and how the solutions provided in Scala and Clojure help address those.

# Rocky Mountain Software Symposium

**-Session Schedule-**

(event schedule as of November 18, 2009)

### Session #18 : Groovier Spring (More Flexible Applications With Spring and Groovy) by Scott Leberknight

Spring provides a solid foundation for web and enterprise applications. Its support for dynamic languages like Groovy adds interesting capabilities that can make your application architecture more flexible and dynamic.

### Session #19 : JSF 2.0: Advanced Topics by David Geary

This session covers two of the most important features of JSF 2.0: composite components and built-in Ajax. ***Prerequisite:*** *Familiarity with JSF, or other component-based frameworks. Familiarity with Ajax. This session builds on the JSF 2.0 Introduction talk, so it is helpful, although not required, if you attend the intro talk before coming to this session.*

### Session #20 : Visualizations for Code Metrics by Neal Ford

Judicious use of metrics improves the quality of your code. But interpreting metrics presents a challenge. You have a list of numbers for a project - what does it mean? And what does it tell me about the health of the project overall? This sessions shows how to produce visualizations for software metrics, making them easier to understand and more valuable. It covers metrics at the individual method level all the way up to the overall architecture of the application. This isn't just a talk about how some tools produce visualizations: this session shows you how to generate your own visualizations, allowing you to customize it to the level in information density that shows real value on your project. I show how to produce projected graphs from dependencies, heat-maps for cyclomatic complexity and code coverage, using XSLT to extract visual information from XML configuration documents, and others. Metrics can't help you if you can't understand them. By creating visualizations, it helps leverage metrics to make your code better.

12:30 - 1:30 PM : LUNCH

1:30 - 3:00 PM - Sessions

### Session #21 : Test Driven Design by Neal Ford

Most developers think that "TDD" stands for Test-driven Development. But it really should stand for "Test-driven Design". Rigorously using TDD makes your code much better in multiple ways.

### Session #22 : Real World Hibernate Tips (Reloaded) by Scott Leberknight

Hibernate is a very powerful object/relational mapping framework. This session contains a new set of Hibernate tips, tricks, and pitfalls.

### Session #23 : GWT fu, Part 1 by David Geary

Learn to implement web applications with GWT. ***Prerequisite:*** *Familiarity with a component-based framework, preferably a desktop application framework*

### Session #24 : The Busy Java Developer's Guide to JMS by Ted Neward

The Java Message Service API provides a unified programming interface to a variety of different messaging systems, and provides a necessary and important supplement to distributed communications.

3:00 - 3:15 PM : BREAK

3:15 - 4:45 PM - Sessions

### Session #25 : Easy mobile development (IPhone, Android, Palm Pre, Blackberry) without native code by Pratik Patel

So you have a great idea for an IPhone app, you've tried learning Objective-C, but it's just too hard. What about those other new platforms like Palm Pre and Android? Who wants to write the same app three times? Four times if you count Blackberry! Fear not, there is a much easier way for you to develop on the IPhone. Using a development style called "hybrid mobile applications" you can write apps for IPhone and other platforms using stuff you already know: HTML, CSS and Javascript. In this course, we'll go over the basics for hybrid development

### Session #26 : Polyglot Persistence by Scott Leberknight

Polyglot persistence is all about considering your persistence requirements and selecting a persistence mechanism that best mets those requirements, as opposed to selecting an RDBMS as the default choice. In this session we'll look at some of the persistence alternatives that are available like Amazon SimpleDB, CouchDB, Google Bigtable, and more.

### Session #27 : GWT fu, Part 2 by David Geary

Learn to do amazing stuff with GWT. ***Prerequisite:*** *GWT fu, Part 1 is not a prerequisite for this session, but it will help if you have some familiarity with GWT.*

### Session #28 : The Busy Java Developer's Guide to Advanced JMS by Ted Neward

Once you've mastered the basics of JMS, a whole new world of interesting capability opens up. Understanding all of the possible permutative capabilities in the JMS API is another story, however--when do you use transactions? When do you use acknowledgement? When do you use persistent message queues, and when are simpler Topics acceptable instead? Message selectors?

# Rocky Mountain Software Symposium

**-Session Schedule-**

(event schedule as of November 18, 2009)

4:45 - 5:45 PM : BIRDS OF A FEATHER SESSION

## Sunday, Nov. 22

8:00 - 9:00 AM : BREAKFAST

9:00 - 10:30 AM - Sessions

### Session #29 : Java Memory, Performance and the Garbage Collector by Ken Sipe

You are using Java, whew!!! No need to worry about memory, the garbage collector will handle that. Those who have had a memory issue in Java are not so naive any more. Often memory utilization and heap sizes are an after thought and are not recognized until the application is in production, often caused by application uptime, production request volume or production sets of data. When the OutOfMemory Error occurs, often the science of development seems to brake down and knobs are turned. First the (-mx) maximum heap space gets adjusted... More is better right. The next OutOfMemory, heads start scratching, code reviews start in earnest, and Google gets several new hits. Did you know that it is possible to get an OutOfMemory error without running out of heap space?

### Session #30 : Git Going with Distributed Version Control by Matthew McCullough

Many development shops have made the leap from RCS, Perforce, ClearCase, PVCS, CVS, BitKeeper or SourceSafe to the modern Subversion (SVN) version control system. But why not take the next massive stride in productivity and get on board with Git, a distributed version control system (DVCS). Jump ahead of the masses staying on Subversion, and increase your team's productivity, debugging effectiveness, flexibility in cutting releases, and repository redundancy at $0 cost. Understand how distributed version control systems are game-changers and pick up the lingo that will become standard in the next few years. ***Prerequisite:*** *Basic understanding of Subversion or similar version control system*

### Session #31 : Flex and Java integration by Shashank Tiwari

Flex is a leading rich internet application development framework and Java is the most pervasive of enterprise computing envirnments. In this session you will learn to combine the two effectively and leverage a robust server side with a highly interactive user interface.

### Session #32 : REST : Web Architecture for Rich Clients by Brian Sletten

The failure of a Service-Only Architecture (SOA) is that it fails to highlight the data that flows through it. We must embrace a software architecture that puts information first. Who wants what? How do they want to use it? This blended vision that handles data, documents, services and concepts There is tremendous interest in REpresentational State Transfer (REST) as an architectural style for building scalable, flexible, information-driven architectures in the Enterprise. The success of the Web has caught our attention in the face of increased complexity and many failures with more traditional Web Services technologies. The problem is that it is difficult to sell a way to do things. Managers do not want to feel like they are innovating in the middleware space. They want to understand why they should deviate from the blue prints laid down by the industry leaders. They want to understand when they should use REST, when they should use SOAP and when they might fallback to regular old Java-based messaging. They want to make business-based technology decisions that lay a path to forward progress rather than paying for technological flux.

10:30 - 11:00 AM : MORNING BREAK

11:00 - 12:30 PM - Sessions

### Session #33 : Debugging your Production JVM by Ken Sipe

So your server is having issues? memory? Connections? Limited response? Is the first solution to bounce the server? Perhaps change some VM flags or add some logging? In todays Java 6 world, with its superior runtime monitoring and management capabilities the reasons to the bounce the server have been greatly reduced.

### Session #34 : Real-world Refactoring by Neal Ford

Refactoring is a fine academic exercise in the perfect world, but we don't really live there. Even with the best intentions, projects build up technical debt and crufty bad things. This session covers refactoring in the real world, at both the atomic level (how to refactor towards composed method and the single level of abstraction principle) to larger project strategies for multi-day refactoring efforts. This talk provides practical strategies for real projects to effectively refactor your code.

### Session #35 : Flex and Hibernate by Shashank Tiwari

A complete journey into the challenges and solutions for effective integration of Flex and Hibernate.

### Session #36 : RDFA : Weaving Richness and Meaning in the Web by Brian Sletten

The human web is reasonably well in hand by now. We are getting pretty good at building systems that people find valuable and entertaining. We have not spent as much time concerned about our software friends. There is a ton a rich content available on the web that is too difficult to extract in automated ways using just XHTML, the meta tag and microformats. This talk will introduce you to some emerging technologies from the Semantic Web camp to enrich your web pages with useful information for both automated extraction and improved browsing experiences.

# Rocky Mountain Software Symposium

**-Session Schedule-**

(event schedule as of November 18, 2009)

12:30 - 1:15 PM : LUNCH

1:15 - 2:15 PM : EXPERT PANEL DISCUSSION

2:15 - 3:45 PM - Sessions

### Session #37 : Hacking - The Dark Arts by Ken Sipe

A live Hacking demonstration exposing the tools and techniques used by Hackers.

### Session #38 : Open Source Debugging Tools for Java by Matthew McCullough

This session will survey a wide range of tools across the Java space. We'll look at utilities such as VisualVM, jstatd, jps, jhat, jmap, Eclipse Memory Analyzer, jtracert, btrace and more. Open Source is not just a suite of libraries you consume within your application, but now reaches into the space of tools to help you troubleshoot and improve your applications. The price of these tools eliminates barriers to their use and their open source nature allows you to mix and match them into compositions that work well for your application's unique debugging needs.

### Session #39 : Collaborative real-time RIA by Shashank Tiwari

In this session, learn to craft and create collaborative rich internet applications, that are responsive and updated in real-time for streamlined decision making and business intelligence harnessing. Understand how in-time communication can smoothen information exchange, reduce errors and increase productivity.

### Session #40 : SPARQL : Querying the Web of Data by Brian Sletten

The human-friendly Web is about nicely-formatted, accessible content for users to browse. There is an emerging Data Web that relies on technologies from the Semantic Web stack to link increasingly rich connections between various data sources. SPARQL and RDF are the main tools for expressing and using this connectivity. This talk will introduce you to one of the practical and accessible aspects of employing these ideas on the Web and in the Enterprise. Getting people to come to consensus on common models and schemas is usually the hardest part of any data integration strategies. These technologies help lower the bar on both the technical and social costs of stepping up your integration strategies.

3:45 - 4:00 PM : BREAK

4:00 - 5:30 PM - Sessions

### Session #41 : Security Code Review by Ken Sipe

Security concerns abound... According to Gartner 75% of all attacks are at the web application tier. There has never been a more urgent time to understand the security concerns and how to apply solutions to our web applications.

### Session #42 : Open Source Debugging Tools for Web Apps by Matthew McCullough

This session will survey a wide range of tools across the Web application debugging space, covering the REST, HTML, SOAP, CSS, TCP, Filesystem and JavaScript facets of an app. We'll look at utilities such as tcpdump, curl, Wireshark, JMeter, Firebug, JASH, Poster, SoapUI, Firediff, lsof, fs_usage, iwatch and more. Open Source is not just a suite of libraries you consume within your application, but now reaches into the space of tools to help you troubleshoot and improve your applications. The price of these tools eliminates barriers to their use and their open source nature allows you to mix and match them into compositions that work well for your application's unique debugging needs.

### Session #43 : Communication Skills for Knowledge Workers by Neal Ford

Software is fundamentally a communications game, and good skills differentiates between good and great developers. This session describes communication techniques and skills to people who skipped English 102 to hack some code. I talk about effective communication techniques for presentations, documentation, memos, and how to sell your technical ideas to a non-technical crowd.

### Session #44 : Semantic Web : Rich Data for Rich Clients by Brian Sletten

Just as the world is feeling comfortable with the Web, Tim Berners-Lee et al inform us that what we have seen so far is just the beginning. His original plans at CERN were larger and grander. The Semantic Web is a vision of machine-processable documents and metadata to improve search, knowledge discovery and data integration and management. The only problem is that there is no such thing. There is no Semantic Web, just the Web we have that is increasingly semantics-enabled. Forget the hype. Come learn how the technologies of this vision are being used today on the Web and in the Enterprise by more people than you might think.