ADVANCE CONFERENCE GUIDE

JavaOne℠

2009 JavaOne℠ Conference | June 2–5, 2009 | The Moscone Center, San Francisco, CA

JAVA + COMMUNITY = POWERFUL

Sharpen your work on technologies that matter, get hands-on, and (re)connect with the best community in technology today.

Whether you're into...

AJAX APIs, standards, and specifications
Cloud computing
Cloud-enabled database technology
Compatibility and interoperability
Concurrency
Desktops
Eclipse
Eco responsibility
Embedded Java™ technology
Game development
Garbage collection
GlassFish™ application server
IDEs
Integration and service-oriented development
Java Card™ platform
Java Runtime Environment software
Java SE, Java EE, and Java ME platforms
Java technology developer communities
JavaFX™ technology
JavaServer™ Faces 2.0 technology
Mobile Information Device Profile (MIDP)
Music technologies
NetBeans™ IDE
Open-source and community development
Persistence architectures
Rails on the Java Virtual Machine
Real-time Java technology
REST for Java technology
Robotics
Scripting within the Java Virtual Machine
Sun™ Enterprise Service Bus Suite
Virtual worlds
Voice recognition
Web services
Web standards such as Canvas and SVG

You gotta be here this year.

Note: This guide is big, because we've cross-referenced all of the session listings to give you easy access to everything you need.

** Content subject to change.*

ATTENDEE PRICING

ATTENDEE SPECIAL PRICING	Early Bird (Through 4/22)	Regular (Through 6/1)	Onsite (Through 6/5)
All-Access Pass	$3,500	$3,500	$3,500
Conference Plus Pass			
• With access to half-day Java University℠ program, Sunday only	$2,190	$2,290	$2,390
• With access to full-day Java University program, Monday only	$2,590	$2,690	$2,790
• With access to half-day Java University program on Sunday and full-day Java University program on Monday	$2,790	$2,890	$2,990
Conference Pass	$1,795	$1,895	$1,995
Java University Pass Only			
• Half-day Java University program, Sunday only	$395	$395	$395
• Full-day Java University program, Monday only	$795	$795	$795
• Half-day Java University program on Sunday and full-day Java University program on Monday	$995	$995	$995
Pavilion Pass Only	Free	Free	Free

All-Access Pass
Access to:
- JavaOne℠ conference — Four-day Conference program including all general and technical sessions
- Java University
- CommunityOne Plus Deep Dives — Includes two days of Deep Dive sessions
- The Pavilion

In addition to access to all these venues, you won't have to wait in line and will receive preferential seating at all JavaOne conference sessions and events. You'll also receive a special gift: a 100% full-grain, brown leather computer briefcase.

Conference Plus Pass: Access to the four-day Conference program, including Java University (a choice of half-day Java University program on Sunday only; full-day Java University program on Monday only; or both the half-day Java University program on Sunday and full-day Java University program on Monday) and the Pavilion.

Conference Pass: Access to the four-day Conference program and the Pavilion.

Java University Program Pass: Access to the Java University program.

Pavilion Pass: Access to all four days of the Pavilion (June 1–4), the CommunityOne general session and Unconference, and the JavaOne conference general sessions (June 2–4). Access to the general sessions is based on available seating.

Group Discount
Do you plan on bringing a large group to the Conference this year? The 2009 JavaOne conference group discount offers special savings when you register a group from your company. Register four (4) or more Conference Pass or Conference Plus Pass attendees and receive a 10% discount off the Conference Pass portion of the price. It's easy. Just call the JavaOne Conference Registration and Housing Hotline for more details:

- U.S. and Canada: 1-866-382-7151
- International: +1-650-226-0820

This offer applies only to Conference Pass and Conference Plus Pass rates. No other offers/packages apply. Qualifying passes must be purchased at the same time and be from the same organization.

Faculty/Staff and Student Packages
Packages are available for faculty/staff and students taking a minimum of 6 to 8 units. This offer applies only to accredited nonprofit institutions of learning. You must be at least 18 years of age to participate.

If you're a faculty/staff member or an eligible student, contact the JavaOne Conference Registration and Housing Hotline for additional information:

- U.S. and Canada: 1-866-382-7151
- International: +1-650-226-0820

REFER A FRIEND PROGRAM

Refer Five of Your Friends and Colleagues and Receive a Flip MinoHD!

Have you ever wanted a lightweight, super-sleek, portable camera with the power of HD? You can get one when you refer five of your friends and colleagues to the JavaOne conference!

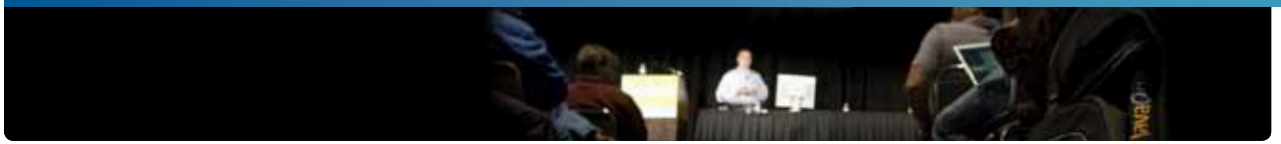
The Flip MinoHD fits right in your pocket, has one-touch recording, and weighs less than four ounces. It's easy to use and takes HD-quality video. Just have everyone you're referring enter your registration ID number (located on your registration confirmation) as their referral code when they register and you can receive one of the referral gifts described below. All referral codes must be submitted at the time of registration to qualify.

1–4 registration referrals: one T-shirt designed by Sun's James Gosling*

5 or more registration referrals: one Flip MinoHD*

*Available only to paid Conference Pass, Conference Plus Pass, and All-Access Pass attendees, and while supplies last. Refer to the Official Rules for more information.

** Content subject to change.*



SHARPEN YOUR SKILLS

You know the technology industry. Do you think anyone who's really sharp is slowing down because of the economy? Of course not. And the JavaOne conference hasn't slowed down either. This year the Conference is all about the technologies that are in demand right now — and poised for growth:

> Rich media applications and interactive content
> Mobility
> Services
> Core technologies

In this guide, you'll get the first glimpse of the 2009 JavaOne conference. There's a lot to take in — and there will be even more in the coming weeks. The Conference packs in as much information and networking as two — or more — conferences. During your visit, you'll benefit from a variety of experiences:

> Learning — Get the no-nonsense information you can use immediately in your work. And marketing-speak is expressly forbidden.
> Hundreds of technical sessions and BOFs, including Hands-on Labs — this is the place to get your hands dirty with the latest tools and technologies.
> The Pavilion — Leaders. Innovators. Brash startups. Access the whole spectrum of companies leading innovation using Java™ and other new technologies.
> Community — Hang out with other smart people who are thinking up solutions people will be using later this year and in years to come.

There are so many reasons to attend the 2009 JavaOne conference. But don't forget the most important one: the contribution you make to the dialogue and the community by being there. We look forward to seeing you at the Conference.

CONTENTS

** Content subject to change.*

DUKE'S CHOICE AWARDS

Every year the JavaOne conference culminates with the Duke's Choice Awards, celebrating extreme innovation in the world of Java technology. And the global search is on to find this year's coolest Java technology-based projects for consideration. The primary judging criteria for this prestigious award is innovation — and that puts small developer shops on an equal footing with multinational giants. So don't miss this opportunity to be recognized as one of the Java developer community elite at the JavaOne conference in San Francisco. Visit java.sun.com/javaone to access the nomination form.

ROCK STARS ON STAGE

The JavaOne conference Rock Stars Program honors outstanding speakers who've consistently delivered exceptional content. They're not only renowned experts in their areas, they've also received the highest accolades from those who've attended their sessions.

Honored presenters from the past four JavaOne conferences have been identified with the Rock Star Duke™ designation in the session listings. We applaud their contributions to JavaOne conference education and their commitment to the Java technology community.

JAVA CHAMPIONS

The Java Champions community was started by Sun at the 2005 JavaOne conference to recognize key influencers in the Java community. Java Champions are influential Rock Star presenters and Java technology educators, authors, and consultants; Java platform event organizers; and others within the Java technology ecosystem. For the third consecutive year, Java Champions have contributed to the JavaOne conference process as technical reviewers for paper submissions, have been recognized for their achievements, and have shared their thoughts about the state of the Java platform at their BOF sessions.

JAVA USER GROUPS

More than 40 Java user groups assemble at the JavaOne conference each year. They engage in a host of community activities, including an offsite meeting sponsored by Sun's Technology Outreach Group. There's also a special meeting with Sun's James Gosling for the JUG that registers the most JavaOne conference attendees. You can find the JUG leaders at their expanded pod inside the java.net Community Corner or at the Java Champions BOF. Check them out and find a JUG for you!

RETAIL STORE AND BOOKSTORE HOURS

	Retail Store	Bookstore
MONDAY, JUNE 1	10:00 a.m.–7:00 p.m.	8:00 a.m.–6:00 p.m.
TUESDAY, JUNE 2	10:00 a.m.–7:00 p.m.	7:30 a.m.–7:00 p.m.
WEDNESDAY, JUNE 3	10:00 a.m.–7:00 p.m.	7:30 a.m.–7:00 p.m.
THURSDAY, JUNE 4	10:00 a.m.–7:00 p.m.	7:30 a.m.–7:00 p.m.
FRIDAY, JUNE 5	10:00 a.m.–3:00 p.m.	8:00 a.m.–3:00 p.m.

GENERAL SESSIONS*

In daily general session presentations, visionary speakers from leading organizations offer compelling perspectives on the future of technology — its trends, challenges, and opportunities. These forward-looking sessions offer attendees a roadmap for what the industry will be doing with Java technology in the years ahead.

GENERAL SESSION SCHEDULE

TUESDAY, JUNE 2	8:30–10:30 a.m.	
	1:30–3:00 p.m.	3:20–4:20 p.m.
WEDNESDAY, JUNE 3	8:30–9:15 a.m.	5:30–6:15 p.m.
THURSDAY, JUNE 4	8:30–9:15 a.m.	5:30–6:15 p.m.
FRIDAY, JUNE 5	8:30–10:30 a.m.	

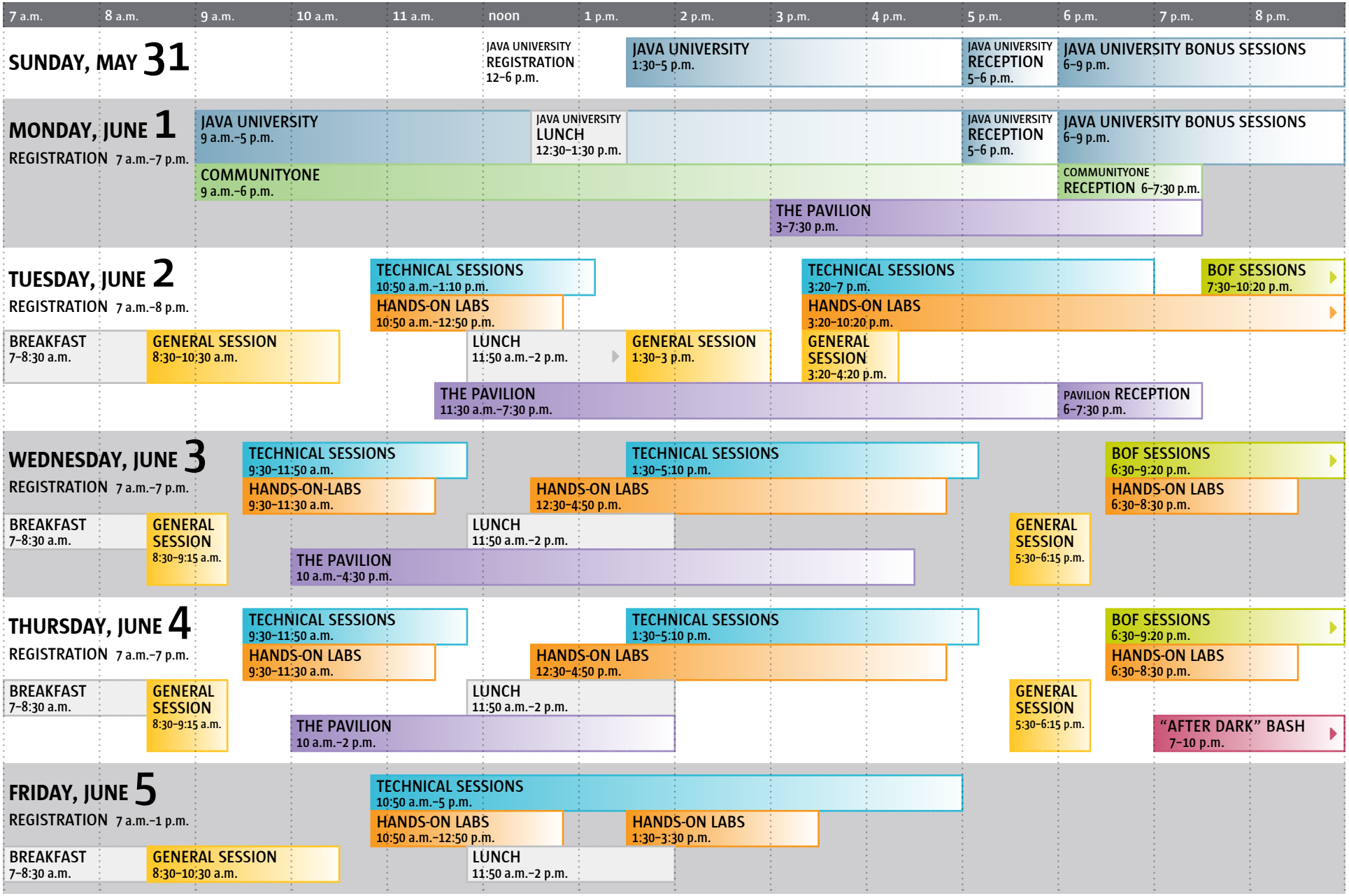
**Sessions and times subject to change.*

We're in your neighborhood

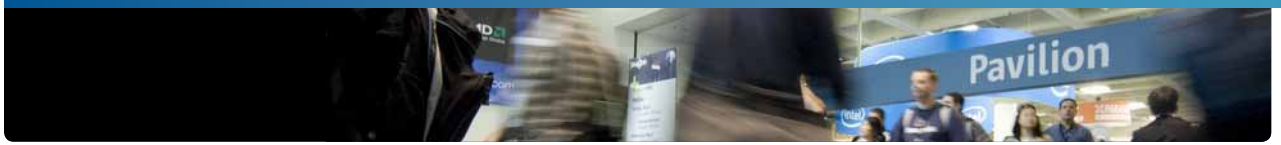
Check Us Out

* Content subject to change.

CONFERENCE AT A GLANCE



** Content and times subject to change.*



LEADERS. INNOVATORS. BRASH STARTUPS.

If you want to access the entire spectrum of companies leading innovation for Java and other creative, leading-edge technologies, don't miss your chance to visit the Pavilion. There's so much to do, ask, and learn. Get hands-on with the tools and technologies. Get face-to-face with the experts. You never know what you'll discover.

JAVA + YOU = EXPRESSIVE

EXHIBITORS

The Pavilion is more than a great place to get your questions answered — it's also a great place to be surprised by new technologies and solutions. In the Pavilion, you'll find the companies you know, the companies you want to know, and the companies you should know, all in one easy-to-explore venue. Check out the list of exhibitors below (current as of this publication and more to come!), and then talk to their experts on the Pavilion floor.

Exhibitors

Adobe Systems Inc.
AgileIT LLC
Altova
Amazon
Appistry
Atlassian
BIRT Exchange by Actuate
Canoo Engineering AG
Caucho Technology
Coverity
dotFX Inc.
eBay
Eclipse Foundation
Electric Cloud
ESRI
ExactTarget
hello2morrow Inc.
ICEsoft Technologies Inc.
ILOG, an IBM Company
Intellicus Technologies
IT Mill
JetBrains s.r.o.
Jinfonet Software
JNBridge
Klocwork
Liferay, Inc.
Livescribe Inc.
MapQuest
Mashery
OPNET Technologies, Inc.
Pentaho Corporation
Perforce Software
Pervasive Software Inc.
Real-Time Innovations (RTI)
Ricoh Americas Corporation
Safari Books Online
ScaleOut Software, Inc.
Software FX, Inc.
SpringSource
Sprint Nextel
State Farm Insurance Companies
Urbancode
Viewtier Systems
Webtide LLC
WIBU-SYSTEMS USA, Inc.
Zero Turnaround

COSPONSORS

Let us introduce you to our cosponsors — companies that are at the forefront of developing game-changing technologies. We hope you'll take advantage of the JavaOne conference to find out what's happening with these industry leaders (current as of this publication and more to come!). You'll have plenty of opportunities: Platinum cosponsors have the opportunity to host a general session. Other cosponsors will have developers hosting technical sessions. And all cosponsors will be available to talk, one-on-one, on the Pavilion floor. So make contact.

Platinum Cosponsor

intel

Cosponsors

JBoss a division of Red Hat
Sony Ericsson

Media Sponsors

informIT.com
CLOUD COMPUTING JOURNAL
JDJ
SOA WORLD MAGAZINE
SYS-CON MEDIA
THE CODE PROJECT
TheServerSide.COM
VIRTUALIZATION JOURNAL

Media Partners

Application Development Trends | DZone, Inc. | Extension Media
IEEE Computer Society | *Linux Journal* | Slashdot | SourceForge
Toolbox | WITI – Women in Technology International

* *Content subject to change.*

CHANGE (Y)OUR WORLD LOUNGE

Come and play with interactive demos and applications in Sun's Change (Y)our World Lounge. Focusing on freedom, collaboration, and leadership in social change, the Change (Y)our World Lounge showcases applications tied to global awareness and demos that foster audience engagement and participation. Get real-life, hands-on experience with the latest Java technology-based products and applications, meet this year's Duke's Choice Award winners, and much, much more.

COMMUNITY CORNER

The java.net Community Corner will again be a hub of activity at this year's Pavilion. It's the place to share your thoughts on Java technology with the greater Java community and meet and chat with community leaders, developers, project owners, Java user group leaders, the NetBeans™ Dream Team, and Java Champions. There are podcasts and mini-talks occurring in the Corner — and you never know which Java technology celebrity will show up to do an impromptu Q&A session with Community Corner attendees.

PAVILION HOURS

MONDAY, JUNE 1	3:00–7:30 p.m.
> CommunityOne Reception	6:00–7:30 p.m.
TUESDAY, JUNE 2	11:30 a.m.–7:30 p.m.
> Pavilion Welcome Reception	6:00–7:30 p.m.
WEDNESDAY, JUNE 3	10:00 a.m.–4:30 p.m.
THURSDAY, JUNE 4	10:00 a.m.–2:00 p.m.

** Content subject to change.*

JAVAONE CONFERENCE AFTER DARK EVENTS

Luck favors the repaired. And after a full day of Conference stimulation, everyone needs a little time to relax, repair, share ideas, and network. JavaOne After Dark events give you opportunities to enjoy some downtime with your peers, talk about how you'll use your Conference knowledge over the next week and year — and maybe even plan your own startup.

Pavilion Welcome Reception
Tuesday, June 2 | 6–7:30 p.m.

Get another look at exhibitor technologies during the Pavilion Reception. It takes place following your first day at the Conference and is the perfect opportunity to enjoy some refreshments while seeing everything the Pavilion has to offer. Meet with representatives of leading technology companies, see special demos of the latest enhancements to the Java platform and expanded technologies, and meet with session speakers and technical experts.

JavaOne Conference "After Dark" Bash
Thursday, June 4 | 7–10 p.m.

The "After Dark" Bash is a great exclamation point for celebrating another year with the JavaOne community. Plan to have some fun, unwind, network, and talk shop — or not. Whatever your mood, this year's "After Dark" Bash will provide plenty of entertainment.

ABOUT SUN STARTUP ESSENTIALS

Sun Startup Essentials is a fee-free program that offers deep discounts on industry-leading, power-efficient servers and storage products and massively scalable Web hosting services, plus free training and technical advice.

With servers starting under $750 and certified for Linux, Windows, and the Solaris™ OS, and Web hosting starting at $40/month, you can build your business on a solid foundation. With Sun technology powering your infrastructure, you'll have all the capabilities you need to quickly develop your product and scale to meet the skyrocketing demands of a growing business — without having to worry about outgrowing your technology investments.

We want to help you hit it big, even on a shoestring budget. Join Sun Startup Essentials today at sun.com/startup.

NETBEANS™ DREAM TEAM

For the first time at the JavaOne conference, the NetBeans Dream Team is participating in the java.net Community Corner. The Dream Teamers speak regularly to Java user groups and engage with Sun's software development teams via the NetBeans Community Acceptance Testing Program (NETCAT).

IN-DEPTH TECHNICAL TRAINING

The 2009 Java University program offers the in-depth courses that today's developers are looking for. These technical training sessions cover the hottest open-source developer topics, including Java Platform, Enterprise Edition (Java EE platform); SOA; JavaFX technology; Web 2.0; Ruby; Groovy; MySQL™ database; cloud computing; and much more. The Java University program provides access to Sun and industry experts who teach these deep-dive courses. Learn from the experts and share your knowledge with your peers.

The Java University program will be held on Sunday afternoon, May 31, 2009, and all day Monday, June 1, 2009. Attendees can choose the half-day option, full-day option, or both, then select from the sessions listed. In addition, attendees are invited to join us for an evening reception as well as "bonus" evening sessions.

JAVA = INNOVATION

COURSE INDEX

Choose one of the following Java University programs:

> ACCESS TO THE HALF-DAY JAVA UNIVERSITY PROGRAM ON SUNDAY ONLY

Attend one of the following Sunday afternoon half-day sessions (1:30–5 p.m.):

1. Developing Enterprise Applications with the Spring Framework (Monday option available)
2. Extreme Performance: Tuning Java Platform, Standard Edition (Java SE Platform) for Throughput and Latency
3. Integrating Web 2.0 and Cloud Computing to Build Next-Generation Java Technology-Based Applications
4. Java Certification Workshop: Review and Prep Session to Pass the Sun Certified Java Programmer Certification Exam
5. More Than Skin-Deep: JavaServer Faces 2.0 Platform Foundation and Practice
6. Rapid Web Application Development with Groovy and Grails (Monday option available)
7. Writing Powerful Real-Time Web Applications, Using Grizzly Comet

At the end of the day, if you're still yearning for more, you can stay for one of these three bonus Sunday evening sessions* (6–9 p.m.):

- Creating and Hosting Social Applications of All Shapes and Sizes with the Zembly™ Application
- Developing and Deploying Mobile Enterprise Solutions Using Sun GlassFish Mobility Platform
- Getting Started with MySQL Database for Developers

**Note: Seating in bonus sessions is available on a first-come, first-served basis.*

** Content subject to change.*

> ACCESS TO THE FULL-DAY JAVA UNIVERSITY PROGRAM ON MONDAY ONLY

Attend one of the following Monday full-day sessions (9 a.m.–5 p.m.):

1. Designing and Implementing Secure Java Technology-Based Web Services
2. Using Java Platform, Enterprise Edition (Java EE Platform) and SOA to Help Architect and Design Robust Enterprise Applications

OR make it a full day by combining one Monday morning half-day session with one Monday afternoon half-day session.

Monday morning half-day sessions (9 a.m.–12:30 p.m.):

1. Developing Portable Java Platform, Enterprise Edition (Java EE Platform) Applications with the Enterprise JavaBeans™ 3.1 Technology-Based Component API
2. Developing Enterprise Applications with the Spring Framework (Sunday option available)
3. Developing Secure, Interactive Applications Hosted on a Variety of Clients, Using JavaFX Technology
4. Rapid Web Application Development with Groovy and Grails (Sunday option available)
5. Web 2.0: Building Dynamic Web Sites with AJAX and the Dojo Toolkit

Monday afternoon half-day sessions (1:30–5 p.m.):

1. Developing Java Technology-Based Applications with the Java Persistence API 2.0
2. Filthy-Rich Clients
3. Learning How to Develop Java Platform, Micro Edition (Java ME Platform) and JavaFX Mobile Applications for Mobile Devices
4. Using the Power of JRuby and Rails to Develop Robust Applications
5. Web 2.0: Leveraging the Project jMaki, Google Web Toolkits, and Flex for Rapid Web Site Development

At the end of the day, if you still have room left in your brain, you can stay for one of these four bonus Monday evening sessions* (6–9 p.m.):

- Application Performance Tuning, Using Dynamic Tracing (DTrace)
- Building Robust Solutions with GlassFish Enterprise Server and MySQL Database
- NetBeans 6.5 Architecture and Its Powerful Plugins
- Cloud Computing: Developing, Deploying, and Managing Applications in the Cloud

**Note: Seating in bonus sessions is available on a first-come, first-served basis.*

> ACCESS TO THE JAVA UNIVERSITY PROGRAM ON SUNDAY (HALF DAY) AND MONDAY (FULL DAY)

Combine the Sunday and Monday offerings for a lower price!

** Content subject to change.*

Application Performance Tuning, Using Dynamic Tracing (DTrace)

Instructors: **Phil Harman and Jon Haslam**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:

The Solaris 10 Operating System provides a revolutionary new framework for application and system observability: Dynamic Tracing (DTrace). This course provides students with the basic set of tools required to immediately begin using DTrace for application and systemic performance analysis. By use of examples, it demonstrates how students can quickly obtain views of their software stack that they never knew existed. It also presents an overview of the DTrace framework and architecture, together with many examples of the D language.

COURSE APPROACH:

Renowned for their humorous approach to the subject, the instructors bring lots of examples together with a modicum of interaction to demonstrate why DTrace is the answer to most of the big questions in life.

Content:

This session makes extensive use of live examples (typed live and not precanned whenever possible). It begins with an overview of the complexity faced in behavioral analysis and why extant tools just don't make the grade. It demonstrates why DTrace is able to solve the issues faced. And it gives an overview of the DTrace architecture, along with examples of how to analyze various parts of a systems software stack. This is followed by examples of analyzing C and Java technology-based applications.

Setting the Scene: Why You Need DTrace
- Observability and Complexity: The Way Things Were
- DTrace: The Dawn of a New Era
- Thrill Seeking: DTrace by Example (a Quick Tour)

DTrace: An Overview
- Systemic observability by example
  - System calls
  - Scheduling
  - I/O and file systems
  - Processes and threads
  - The kernel

Application Analysis by Example
- Applying DTrace to C-Based Applications
- Adding DTrace Probes to Your Own Code (USDT)
- Applying DTrace to Java Programming-Language-Based Applications

Next Steps: Resources and Pointers

Prerequisites:

A general programming background is preferred but not essential.

Objectives:

Upon completion of this course, participants should be both motivated and able to begin applying DTrace to real-life scenarios.

Features of This Course:

- Code reviewed and demonstrated by the instructors will be available for download within a few weeks after the Java University program.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by Solaris OS kernel engineers.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Developers and system administrators

Building Robust Solutions with Sun GlassFish Enterprise Server and MySQL Database

Instructors: **Shreedhar Ganapathy and Joe Boulenouar**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:

This course introduces Sun GlassFish Enterprise Server as a platform for deploying services ranging from simple Web applications to enterprise-scale applications and Web services. Sun GlassFish Enterprise Server is based on Java Platform, Enterprise Edition 5 (Java EE 5 platform). Developers can deploy and manage applications based on JavaServer Pages™ (JSP™) technology, JavaServer Faces technology, the Java Servlet API, and Enterprise JavaBeans (EJB™) technology. The course also covers cluster and enterprise profiles. Students learn to configure, administer, and deploy Web applications, EJB 3.1 technology-based applications, and Web services on an application server. The course explains how to enable the various advanced application server features, such as in-memory replication, high-availability database (HADB), load balancing, monitoring and logging, clustering, and security, to the deployed applications. It also covers integration of the MySQL database and Sun GlassFish Enterprise Server v3 Prelude and value-added features.

COURSE APPROACH:

This course focuses on the usage of the GlassFish application server, using code examples. The demos for this course feature the Sun GlassFish Enterprise Server Enterprise Profile and the NetBeans IDE with the NetBeans Visual Web Pack.

Content:

- GlassFish Application Server Installation and Registration
- GlassFish Application Server Features
- Configuring Sun GlassFish Enterprise Server
- Clustering and Load Balancing
- Configuring and Using In-Memory Replication for Session Persistence
- Configuring and Using HADB
- Working with Databases
- Advanced Configuration and Administration
- Development Tools Support
- Securing Sun GlassFish Enterprise Server
- Java Persistence API
- Integration of MySQL Database with GlassFish Application Server
- GlassFish Application Server Value-Added Features
- GlassFish Server v3 Prelude

Prerequisites:

A general programming background is preferred but not essential.

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** Content subject to change.*

Objectives:
Upon completion of this course, participants should be both motivated and able to use the GlassFish application server for their development and production systems.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be available for download within a few weeks after the Java University program.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by GlassFish application server experts.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers, administrators, and architects

Cloud Computing: Developing, Deploying, and Managing Applications in the Cloud

Instructors: **Todd Fast and Chris Webster**
Course Level: **Beginner to Intermediate**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:
In this course, students will learn how cloud computing development is the use of platforms and computer technology, whereby dynamically scalable, virtualized resources are provided as a service over the Internet. Users need not have knowledge of, expertise in, or control over the technology infrastructure that supports them. Students will learn the types of cloud computing, such as utility computing, platform as a service, and cloud-based end-user applications.

COURSE APPROACH:
The instructors will explain the concept of each topic and then present a demonstration emphasizing the key points, followed by a brief Q&A session.

Content:
- Cloud Computing Concepts
- Platform as a Service in Cloud Computing
- Infrastructure as a Service in Cloud Computing
- Software as a Service in Cloud Computing
- Virtualization in Cloud Computing
- Data Storage in Cloud Computing

Prerequisites:
Some Web application development experience is useful but not required.

Objectives:
Upon completion of this course, participants should be able to build reasonably sophisticated Web 2.0 applications that integrate with cloud computing.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be provided after the course.
- Students will receive a printed copy of the instructors' slides.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers and architects

Creating and Hosting Social Applications of All Shapes and Sizes with the Zembly Application

Instructors: **Todd Fast and Chris Webster**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:
This course enables developers — using just their browser, their creativity, and working collaboratively with others — to create and publish applications for Facebook, OpenSocial, meebo, iPhone, Google Gadgets, embeddable widgets, and other social applications.

COURSE APPROACH:
This course covers the Zembly application, which is designed to enable developers to architect applications across multiple platforms. The Zembly environment helps developers break up applications into reusable pieces (services and widgets).

Content:
- Zembly Application Concepts
- Building Flickr Widgets
- Building Zillow Widgets
- Facebook Integration
- Widget Gallery
- Building for the iPhone

Prerequisites:
Participants should have a good understanding of the core Java platform as well as a basic knowledge of general Java Platform, Enterprise Edition (Java EE platform) concepts.

Objectives:
Upon completion of this course, participants should have an understanding of how to use the Zembly application to create useful social Web applications.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be available for download after completion of the course.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by Sun-certified Java technology instructors.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Web application developers

Designing and Implementing Secure Java Technology-Based Web Services

Instructor: **Moises Lejter**
Course Level: **Intermediate to Advanced**
Course Length: **Full-day Course**

COURSE DESCRIPTION:
This course provides students with the information they need to design, implement, deploy, and maintain secure Web services and Web service clients using Java technology-based components, Java APIs (Java API for XML Processing [JAXP], Java Architecture for XML Binding [JAXB], SOAP with Attachments API for Java [SAAJ], Java API for XML Registries [JAXR], Java API for XML Web Services [JAX-WS], and the Java API for RESTful Web

cont. >>

** Content subject to change.*

Services [JAX-RS]) and Java Platform, Enterprise Edition (Java EE platform). It also provides designers with the information they need to understand Web services as a realization of service-oriented architecture (SOA). Students will gain an understanding of how to secure and optimize Web services by using Web services standards (such as Web Services Security [WS-Security]) through the facilities built into Project Metro.

COURSE APPROACH:

The instructor will demonstrate coding examples illustrating the functionality of the JAX-WS API and how to secure Java technology-based Web services. He will highlight and discuss sections of code related to an implementation using JAX-WS APIs and WS-Security.

The demos for this course feature the GlassFish application server and the NetBeans integrated development environment.

Morning Content:

- Java Technologies for Web Services and Platforms
  - The Java technologies for Web services development approaches
  - The Web services development process
- Java API for XML Web Services (JAX-WS)
  - The functionality provided by the JAX-WS API for creating Web services
  - The architecture of the JAX-WS API
  - Using JAXB within JAX-WS
  - Comparison of the two development approaches provided by the JAX-WS API for creating Web services and Web service clients
  - The various types of Web service clients
- Defining Web Services Through WSDL
- Web Services Processing with JAXP, SAAJ, and JAXR for Web Services

Afternoon Content:

- Securing Java Web Services Security, Using Message-Layer Security
  - Message-layer security mechanisms (WS-Security)
  - Functionality provided in Project Metro for securing Web service applications
  - Security Assertions Markup Language (SAML) specifications for Web services
- Optimizing Web Services Interactions
  - Using MTOM
  - Propagating transaction contexts (WS-Coordination and WS-AtomicTransaction standards)
  - Introducing message delivery guarantees
- Implementing Web Services, Using REST
  - Building RESTful Web services in JAX-WS
  - Building RESTful Web services, using JAX-RS and Jersey

Prerequisites:

A thorough knowledge of Java technology; Java Platform, Enterprise Edition (Java EE platform); EJB architecture framework; and XML and a basic knowledge of SOAP, SAAJ, WSDL, and UDDI is preferred.

Objectives:

Upon completion of this course, participants should have an understanding around using the Java API for XML as the standard programming model for both Web service clients and endpoints in Java EE technology-based applications. Students should also have an understanding of the tools and techniques available for securing a Java technology-based Web service.

Features of This Course:

- Code reviewed and demonstrated by the instructor will be available for download upon completion of the course.
- Students will receive a printed copy of the instructor's slides.
- Material is presented by a Sun-certified Java technology instructor.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Java technology-based Web service developers

Developing and Deploying Mobile Enterprise Solutions Using Sun GlassFish Mobility Platform

Instructor: **Hans Hrasna**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:

This course enables developers to easily build mobile enterprise solutions that can access, synchronize, and update corporate/enterprise information and applications securely on any mobile device. It also shows users how to deploy and configure Sun GlassFish Mobility Platform.

Sun GlassFish Mobility Platform is built on robust scalable technologies, such as the Java platform, GlassFish application server, and MySQL database. It provides APIs and tools for rapidly building mobile client applications for many devices, out-of-the-box adapters for several popular back-end systems such as SAP and Oracle's Siebel, and APIs and tooling to build Sun GlassFish Mobility Platform connectors (using Java API for RESTful Web Services [JAX-RS] and J2EE™ Connector Architecture [JCA]) to easily access any enterprise back-end data or application.

COURSE APPROACH:

This course focuses on the use of Sun GlassFish Mobility Platform, using demos that feature Sun GlassFish Enterprise Platform and the NetBeans IDE.

Content:

Sun GlassFish Mobility Platform Features and Benefits

- Mobile Client, Gateway, Connector, and EIS Components
- Flexible Architectures — Provided Versus Managed Use Cases
- Developing Connectors — Enterprise Connector Business Object (ECBO) API Versus JAX-RS, Sun Java Composite Application Platform Suite, and Tooling
- Developing Mobile Client Applications — Mobile Client Business Object (MCBO) API and Tooling
- Putting It All Together — Install, Configure, Deploy, and Run a Sample Application
- Looking Ahead — What's Possible in the Next Version?

Prerequisites:

A general programming background is preferred.

cont. >>

* Content subject to change.

Objectives:
Upon completion of this course, participants should be both motivated and able to use Sun GlassFish Mobility Platform.

Features of This Course:
- Code reviewed and demonstrated by the instructor will be available for download within a few weeks after the Java University program.
- Students will receive a printed copy of the instructor's slides.
- Material is presented by a Sun GlassFish Mobility Platform expert.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers

Developing Enterprise Applications with the Spring Framework

Instructor: **Chris Richardson**
Course Level: **Intermediate**
Course Length: **Half-day Course (Sunday Afternoon and Monday Morning)**

COURSE DESCRIPTION:
The Spring Framework is a widely used full-stack Java technology-based application framework. Through judicious support for dependency injection (DI), aspect-oriented programming (AOP), and portable service abstraction, Spring offers a powerful and pragmatic way to develop enterprise applications.

COURSE APPROACH:
This course covers a broad range of topics, enabling participants to gain a clear understanding of the Spring Framework. It discusses the principles of DI and how it helps in simplifying test-driven development (TDD). It also examines AOP concepts and their pragmatic applications. Spring has extensive support for middle-tier functionality, including persistence, remoting, management, messaging, and control flow. The course illustrates the value Spring provides in these areas. Spring 2.5, a major new release of the framework, contains many new features, such as context namespace, which offers syntax for common configuration scenarios, and simplifies configuration by harnessing the power of Java programming language annotations. The course discusses these features and ways to leverage them. By the end of the class, participants should be ready to apply Spring in their own applications.

Content:
- The Spring Lightweight Container Architecture, Including Inversion of Control
- Agile, Domain-Driven Design Techniques with Spring
- Effective JDBC™ API and Persistence Data Access
- Declarative Transaction Management
- Pragmatic AOP
- Unit Testing in Isolation
- Rapid System Integration Testing
- Spring Support for Java Specification Request (JSR) 250 (Common Annotations for the Java Platform) Annotations

Prerequisites:
Participants should have a good understanding of Java Platform, Standard Edition (Java SE platform) as well as basic knowledge of general Java Platform, Enterprise Edition (Java EE platform) concepts.

Objectives:
Upon completion of this course, participants should have an understanding of how to use the Spring Framework to create useful business applications.

Features of This Course:
- Code reviewed and demonstrated by the instructor will be available for download after completion of the course.
- Students will receive a printed copy of the instructor's slides.
- Material will be presented by a Sun-certified Java technology instructor.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Business application developers

Developing Java Technology-Based Applications with the Java Persistence API 2.0

Instructors: **Linda DeMichiel and Bob Kellogg**
Course Level: **Intermediate**
Course Length: **Half-day Course (Monday Afternoon)**

COURSE DESCRIPTION:
This course provides students with the necessary knowledge of the Java Persistence API to develop and deploy data-driven applications with Java Platform, Enterprise Edition (Java EE platform) and Java Platform, Standard Edition (Java SE platform). The Java Persistence API enables Java SE and Java EE technology developers to model database entities as POJOs (Plain Old Java Objects). Students will gain an understanding of how to program with the Java Persistence API independent of platform as well as how the Java Persistence API integrates with Enterprise JavaBeans (EJB) 3.x technology-based component services to facilitate the development of enterprise applications.

COURSE APPROACH:
The instructors will highlight and discuss sections of code examples illustrating the functionality and use of the Java Persistence API.

The demos for this course feature the GlassFish application server and NetBeans IDE.

Content:
The Java Persistence API
- The role of the Java Persistence API in a Java technology-based application
- Understanding the principles of object/relational mapping
- The key concepts of persistence contexts and persistence units

Implementing Entity Classes
- Modeling persistent state
- Entity identity
- Modeling entity relationships
- Modeling inheritance relationships

Using the EntityManager API
- Controlling the entity lifecycle
- Using managed and detached entities

cont. >>

* Content subject to change.

Using the Java Persistence API Query Language
- Defining static queries
- Defining dynamic queries
- Deciding when and how to use SQL queries

Controlling Object/Relational Mapping
- Understanding the defaults
- Configuring with annotations
- Configuring and/or overriding with XML

Implementing with Container-Managed and Application-Managed Persistence Contexts
- Implementing with Java Transaction API (JTA) transactions
- Implementing with the EntityTransaction API
- Using the bootstrapping APIs in Java SE programming environments

Leveraging Container Services for Java Technology-Based Persistence
- Understanding transaction propagation and persistence context propagation
- Using extended persistence contexts to implement conversations
- Configuring and packaging a Java technology-based persistence application

Prerequisites:

Knowledge of the Java programming language and a basic knowledge of relational database concepts is preferred.

Objectives:

Upon completion of this course, participants should have an understanding of how to use the Java Persistence API to build data-driven applications with the Java SE and Java EE platforms.

Features of This Course:
- Selections of code reviewed and demonstrated by the instructors will be available for download after completion of the course.
- Students will receive a printed copy of the instructors' slides.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Application developers

Developing Portable Java Platform, Enterprise Edition (Java EE Platform) Applications with the Enterprise JavaBeans 3.1 Technology-Based Component API

Instructors: **Ken Saks and Bob Kellogg**
Course Level: **Intermediate**
Course Length: **Half-day Course (Monday Morning)**

COURSE DESCRIPTION:

This course provides students with up-to-date knowledge of the Enterprise JavaBeans (EJB) 3.1 technology-based component API needed to develop and deploy portable business applications for Java Platform, Enterprise Edition (Java EE platform). The EJB 3.1 technology-based component model has been vastly simplified to improve productivity in writing component-based applications with the Java EE programming language. Students will gain an understanding of fundamental EJB technology-based component concepts, such as session beans, message-driven beans, transactions, and security, and how EJB 3.1 technology-based components make it easy to use container services to develop your applications.

COURSE APPROACH:

The instructors will highlight and discuss sections of code examples illustrating the functionality and use of EJB 3.1 technology-based components.

The demos for this course feature the GlassFish application server and NetBeans IDE.

Content:

Java EE Technology-Based Component Model
- The principles of a component-based development model
- Understanding the roles involved in developing Java EE technology-based applications

Developing EJB 3.1 Technology-Based Component Session Beans as Business Facades
- The role of session beans
- The function and operational characteristics of stateless and stateful session EJB technology-based components
- The use of annotations and dependency injection to implement session beans and their clients

Developing EJB 3.1 Technology-Based Component Message-Driven Beans
- The properties and lifecycle of message-driven beans
- Developing Java Message Service (JMS) API and Non-JMS-API message-driven beans

Understanding Common EJB Technology-Based Component Concepts
- The role of annotations and deployment descriptors
- The bean component environment and lookups
- Application exceptions and system exceptions
- Packaging and deploying to an application server

Implementing Transactions
- Implementing container-managed transactions (CMTs)
- Implementing bean-managed transactions (BMTs)

Implementing Security
- Understanding the Java EE platform security architecture
- Declarative authorization
- Programmatic authorization

Advanced Concepts
- Implementing interceptor classes and methods
- The EJB technology-based component timer service

Prerequisites:

Knowledge of the Java programming language is preferred.

Objectives:

Upon completion of this course, participants should have an understanding of how to use the EJB 3.1 technology-based component API to build business applications on the Java EE platform.

Features of This Course:
- Selections of code reviewed and demonstrated by the instructors will be available for download after completion of the course.
- Students will receive a printed copy of the instructors' slides.
- The instructors will be available for Q&A immediately following the course.

cont. >>

** Content subject to change.*

Job Roles This Course Is Applicable to:
- Application developers

Developing Secure, Interactive Applications Hosted on a Variety of Clients, Using JavaFX Technology

Instructor: James L. (Jim) Weaver
Course Level: Beginner to Intermediate
Course Length: Half-day Course (Monday Morning)

COURSE DESCRIPTION:

The JavaFX technology-based family of products comprises a set of runtime environments, widgets, development tools, and scripting environments based on Java technology. There are currently two products in the JavaFX technology family: the JavaFX Script and JavaFX Mobile platforms. The JavaFX Script programming language is a highly productive scripting language that enables content developers to create rich media and content for deployment in Java application environments. The JavaFX Script programming language is a declarative, statically typed language. It has first-class functions, declarative syntax, list comprehensions, and incremental dependency-based evaluation and can make direct calls to Java technology-based APIs that are on the platform. JavaFX Mobile technology is a complete, preintegrated software system for advanced mobile devices that enables developers to author rich, high-impact content and network-based services. Built around open and standards-based APIs and technologies (Java technology and Linux), the JavaFX Mobile platform enables applications to be leveraged across a wide range of Java technology-enabled devices.

This course starts with a brief introduction of JavaFX technology, including its motivation. The rest of the course is devoted primarily to learning the JavaFX technology-based scripting language.

COURSE APPROACH:

The instructor will explain the concept of each topic and then present a demonstration emphasizing the key points, followed by a brief Q&A session.

Content:

- Introduction to JavaFX Technology
- Introduction to JavaFX Script Technology
- JavaFX Script Technology-Based Plug-In for the NetBeans IDE
- Data Binding
- The Java 2D™ API
- JavaFX Platform Remote Communication with Java Remote Method Invocation
- JavaFX Platform Client-Server Communication with Java API for XML Web Services (JAX-WS)
- JavaFX Mobile Technology
- Future of JavaFX Technology

Prerequisites:

Some programming experience on the Java platform is useful but not required.

Objectives:

Upon completion of this course, participants should be able to build reasonably sophisticated JavaFX applications.

Features of This Course:

- Attendees will receive a printed copy of the instructor's slides.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Content designers
- Application developers

Extreme Performance: Tuning Java Platform, Standard Edition (Java SE Platform) for Throughput and Latency

Instructors: Simon Roberts and Charlie Hunt
Course Level: Intermediate to Advanced
Course Length: Half-day Course (Sunday Afternoon)

COURSE DESCRIPTION:

There's a large family of software applications with very stringent response time goals and/or service-level agreements. The response time goals of this family of applications have traditionally been challenging for Java Platform, Standard Edition (Java SE platform) technology-based applications to meet, due to garbage collection pauses. However, with advancements made to Java Virtual Machine (JVM™) machines and the introduction of Sun Java Real-Time System, these stringent response time requirements can be met. This course provides students with the knowledge, skills, and methods required to monitor and tune both Java SE and Java Real-Time System applications. The course begins with performance-tuning Java applications that have a need for less strict, soft real-time responsiveness and follows with performance tuning of Java applications with strict and predictable, real-time, low-latency responsiveness requirements. Upon completion of this course, students will understand how to performance-tune a Java application with low-latency response time requirements by using Java SE technology or Java Real-Time System and when to use Java SE technology or Java Real-Time System for a given application.

COURSE APPROACH:

The instructors will explain the concepts behind the art of performance-tuning Java applications for low-latency responsiveness, discuss tools to help with performance tuning, and provide demonstrations emphasizing the key points. The course also includes a brief Q&A session.

Content:

Challenges introduced by applications in need of low latency or garbage collection (GC) pause times
- How Java SE platform and Java Real-Time System address those challenges

cont. >>

Overview of Java HotSpot™ JVM machine garbage collectors (GCs)
- Intro to how generational GC works
- Overview of SerialGC collector
- Overview of parallel/throughput collector
- Overview of concurrent collector
  - Basics of the concurrent collector phases
  - Advantages and challenges of concurrent collector
- Overview of G1 (garbage first) collector (in development)
- Choosing the right collector

Performance-tuning Java SE platform and Java HotSpot JVM machine for low latency
- Garbage collection goals
- Sizing Java technology-based heaps and heap spaces
- Garbage collector tuning
  - Basics of garbage collector tuning
  - Detailed concurrent collector tuning
- Monitoring tools

Overview of Java Real-Time System
- Performance-tuning Java Real-Time System garbage collector
- Features of Java Real-Time System that avoid GC pauses
- Advantages and challenges imposed with each feature
- Tips on when and how to use these features
- Concepts of tuning Java Real-Time System GC

Prerequisites:
A basic understanding of a JVM machine is useful but not required. Programming experience on the Java platform is also useful but not required.

Objectives:
Upon completion of this course, attendees should be able to performance-tune a Java technology-based application that has low-latency responsiveness requirements.

Features of This Course:
- Students will receive a printed copy of the instructors' slides.
- Students will also receive demo materials and instructions on how to perform the demos.
- The instructors will be available for Q&A immediately after the course.

Job Roles This Course Is Applicable to:
- Software architects
- Application developers
- Application systems engineers
- Application deployment engineers

Filthy-Rich Clients

Instructor: **Bryan Basham**
Course Level: **Intermediate to Advanced**
Course Length: **Half-day Course (Monday Afternoon)**

COURSE DESCRIPTION:
This course is based on the material from the Java Series book *Filthy Rich Clients*. Graphical effects and animation in GUIs can be totally gratuitous, but when done right, they can make applications more effective and users more productive.

COURSE APPROACH:
Expect a lot of code and demos to show how you can apply these techniques to your applications.

The demos for the course feature the NetBeans integrated development environment.

Content:
Fundamentals
- Swing and graphics fundamentals
- Advanced graphics rendering
- Advanced Swing rendering
- Performance

Animation
- Animation fundamentals
- Timing framework

Effects
- Static effects
- Dynamic effects

Prerequisites:
Basic knowledge of the Swing API is required. Participants should also have written at least a small Swing application.

Objectives:
Upon completing this course, participants should have a better understanding of Swing graphics rendering and how to take advantage of that knowledge to write better, better-looking, and faster applications. They should also understand the fundamentals of how to animate rendering in Swing applications to create more-dynamic desktop applications.

Features of This Course:
- Ample demos and sample code show how to apply this knowledge in real situations.
- Code reviewed and demonstrated by the instructor will be available for download after completion of the course.
- Students will receive a printed copy of the instructor's slides.
- Material is presented by a Sun-certified Java technology instructor.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers

Getting Started with MySQL Software for Developers

Instructor: **Sarah Sproehnle**
Course Level: **Beginner to Intermediate**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:
This session helps developers use the features of MySQL software (version 5.0). The course looks at the architecture of the MySQL management system; how to write queries efficiently; how to utilize stored procedures, triggers, and views; and much more.

COURSE APPROACH:
The instructor will discuss and demonstrate features of the MySQL database server. The focus is on MySQL software version 5.0, which is the current GA release.

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Content:
- Understand the MySQL Client/Server Architecture
- Learn the Various Client Programs and Connectors MySQL Software Provides
- Use Standard and MySQL Software-Specific Syntax to Write Queries
- Create Views
- Perform Bulk Data Import and Export Operations
- Create and Use Stored Routines
- Define Triggers
- Use the INFORMATION_SCHEMA Database to Access Metadata
- Optimize Queries Using Indexes and EXPLAIN

Prerequisites:
A basic understanding of SQL and relational databases is a plus.

Objectives:
Upon completion of this course, students will have a good understanding of the features of MySQL software that a developer needs.

Features of This Course:
- Student will receive a printed copy of the instructor's slides.
- The instructor is certified as a MySQL software instructor, developer, and DBA.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers

Integrating Web 2.0 and Cloud Computing to Build Next-Generation Java Technology-Based Applications

Instructors: **Todd Fast and Deep Bhattacherjee**
Course Level: **Beginner to Intermediate**
Course Length: **Half-day Course (Sunday Afternoon)**

COURSE DESCRIPTION:
This course covers how to develop and implement Web 2.0 technology to integrate and connect to cloud computing. Students will learn how to implement a Web 2.0 front-end application using the JavaScript™ programming language, AJAX, Cascading Style Sheets (CSS), and HTML to provide a rich user experience and to connect to cloud computing services transparently through secure Web services using SOAP, REST, and JavaScript Object Notation (JSON). Students will also learn how cloud computing provides ways to control capacity or add services on the fly without investing in new infrastructure, training new personnel, or licensing new software. Software, infrastructure, and platform as a service are also covered.

COURSE APPROACH:
The instructors will explain the concept of each topic and then provide a demonstration emphasizing the key points, followed by a brief Q&A session.

Content:
- Building a Web 2.0 Application
- Implementing AJAX with REST, SOAP Web Services
- Using Secure Web Services to Connect to a Cloud
- Cloud Computing Architecture
- Making Use of SOA in Cloud Computing
- Making Use of Software as a Service in Cloud Computing
- Making Use of Virtualization in Cloud Computing
- Making Use of Storage in Cloud Computing

Prerequisites:
Some Web application development experience would be useful but is not required.

Objectives:
Upon completion of this course, attendees should be able to build reasonably sophisticated Web 2.0 applications that integrate with cloud computing.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be provided after the course.
- Students will receive a printed copy of instructors' slides.
- The instructors will be available for Q&A following the course.

Job Roles This Course Is Applicable to:
- Developers and architects

Java Certification Workshop: Review and Prep Session to Pass the Sun Certified Java Programmer Certification Exam

Instructors: **Evan Troyka and John Ranta**
Course Level: **Intermediate**
Course Length: **Half-day Course (Sunday Afternoon)**

COURSE DESCRIPTION:
This course seeks to prepare attendees to pass the Sun Certified Java Programmer (SCJP) 6.0 exam.

COURSE APPROACH:
The instructors will highlight, demonstrate, and discuss concepts and source code related to certification subjects for developing in the Java programming language.

Content:
- Java Programming Environment Fundamentals Such as CLASSPATH, Compiler and Runtime CLI Flags, Package/Directory Structures, Java Archive (JAR) Files, and Garbage Collection
- Java Programming Language Fundamentals Such as Pass-By-Value Versus Pass-By-Reference; Arithmetic, Logical, Assignment, and Comparison Operators; Flow Control and Looping; Try/Catch and Assertions; Common Language Exceptions and Errors; and Variable-Length Arguments
- Coding Concurrent Applications with java.lang.Thread and java.lang.Runnable. Object Locking, Object.wait(), Object.notify(), and Object.notifyAll()
- Object-Oriented Programming (OOP) and the Java Programming Language: Encapsulation, Inheritance Polymorphism, Overloading, Overriding, This, Static, Super, Constructors, and Interfaces As Well As Inner And Nested Classes
- API Usage:
  - **java.lang** — wrapper classes, autoboxing and autounboxing, interface Comparable interface and class Class
  - **java.util** — generics and collections, sorting and natural ordering, Comparator, NavigableSet, NavigableMap, Locale, and Scanner
  - **java.util.regex** — basics of Pattern, Matcher, String.split(), and PrintStream.printf()

cont. >>

** Content subject to change.*

– **java.text** — Formatters for dates, currency, and numbers, including default locale and specified locales
– **java.io** — File, FileReader, FileWriter, buffered versions of I/O classes, PrintStream, PrintWriter, and Console; serialization of objects and the various streams used; keyword transient and annotation @Transient

Prerequisites:
Java technology programming experience is required.

Objectives:
Upon completion of this course, students will have a better understanding of what parts of Java technology they need to understand to help them be prepared for the SCJP 6.0 exam.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be available for download upon completion of the course.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by qualified instructors.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Java technology developers

Learning How to Develop Java Platform, Micro Edition (Java ME Platform) and JavaFX Mobile Applications for Mobile Devices

Instructors: **Petr Suchomel and Timothy Miller**
Course Level: **Beginner to Intermediate**
Course Length: **Half-day Course (Monday Afternoon)**

COURSE DESCRIPTION:
With *billions* of Java technology devices all over the world, Java Platform, Micro Edition (Java ME platform) with the current MSA (Mobile Service Architecture) profile is one of the hottest technologies for building and deploying applications. And with the upcoming JavaFX Mobile deployment platform, development for mobile devices is becoming even more attractive. In this course, students will learn about these technologies, from a basic introduction to the Java ME and JavaFX Mobile platforms to how to easily build applications by using the NetBeans IDE, how to add graphics and media to applications, and how to successfully test and deploy applications. Finally, students will have a chance to apply what they've learned by building their own sample application during a lab. The instructors also show different approaches to using common Java code and libraries with front ends built on either Java ME with MSA or JavaFX Mobile technology-based profiles.

COURSE APPROACH:
The instructors will highlight and discuss sections of code related to the development of Java ME and JavaFX Mobile technology-based mobile applications. The course shows how to use the NetBeans IDE to create, test, and deploy an application for mobile devices. The instructors will also show code samples, technical approaches, and differences involved in adding graphics and media to a Java ME or JavaFX Mobile application.

Content:
- Introduction to the Java ME and JavaFX Mobile Platforms
- Commonalities and Differences in Application Development
- How to Set Up and Use the NetBeans IDE for Java ME and JavaFX Mobile Technology-Based Projects
- Using Media and Graphics in Your Applications
- Creating Interoperable Code and Shared Libraries
- Incorporating Web Services into Applications
- Testing Your Application

Prerequisites:
Laptop with the following preloaded:
- NetBeans IDE 6.5 (Java platform distribution with JavaFX technology-based plug-ins installed)
- Sun Java Wireless Toolkit

Objectives:
Upon completion of this course, participants should have an understanding of how to create Java ME and JavaFX Mobile applications by using the NetBeans IDE and be able to incorporate media and graphics capability into their applications.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be available for download upon completion of the course.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by Sun-certified Java technology instructors.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers of Java ME and JavaFX Mobile applications

More Than Skin-Deep: JavaServer Faces 2.0 Foundation and Practice

Instructors: **Ed Burns and Chris Schalk**
Course Level: **Intermediate**
Course Length: **Half-day Course (Sunday Afternoon)**

COURSE DESCRIPTION:
This course provides an in-depth survey of the JavaServer Faces 2.0 platform, the standard Web application framework for Java Platform, Enterprise Edition 6 (Java EE 6 platform) . Because many of the new features in the JavaServer Faces 2.0 platform provide a clean break from previous versions of the framework, it makes sense to present the course from a perspective that does not assume prior experience with the framework. Naturally, experienced JavaServer Faces platform users will also benefit from this course because it presents migration strategies as sidebars in context. It also covers typical JavaServer Faces platform gotchas in context.

COURSE APPROACH:
Because JavaServer Faces technology unifies several other layers of the Java EE technology stack, the course approaches JavaServer Faces technology from three distinct but related viewpoints: the application developer, the UI Component developer, and the framework extender.

The demos for this course feature the NetBeans integrated development environment.

cont. >>

* Content subject to change.

Content:
- Introducing JavaServer Faces Technology: High-Level Subsystems Block Diagrams
- Application Developer Viewpoint
  - Sample application traversal
  - Database layer, including JSR 299 (Web Beans)
  - Model layer, managed beans, JSR 303 (Bean Validation)
  - View and controller layer, including AJAX
- UI Component Developer Viewpoint
  - Composite components, including JSR 276 (Design-Time Metadata for JavaServer Faces Components)
  - Resource libraries
  - AJAX integration
  - Scripting to save time
  - Component annotations
- Framework Extender Viewpoint
  - Patterns that enable extension
  - Survey of extension points
  - Sample extensions

Prerequisites:
Java technology programming and Web framework experience is preferred.

Objectives:
Upon completion of this course, participants should be able to quickly and repeatably create practical and effective Web applications using JavaServer Faces technology.

Features of This Course:
- Code reviewed and demonstrated by the instructors will be available for download upon completion of the course.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by Ed Burns, author and cospecification lead for JSR 127 (JavaServer Faces), and Chris Schalk.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers of Java technology-based Web applications

NetBeans 6.5 Architecture and Its Powerful Plug-Ins

Instructor: **David Botterill**
Course Length: **Bonus Evening Course**

COURSE DESCRIPTION:
The NetBeans IDE provides a powerful set of easy-to-use tools for all types of Java technology development: Java Platform, Standard Edition (Java SE platform); Java Platform, Enterprise Edition (Java EE platform); and Java Platform, Micro Edition (Java ME platform). Beyond Java technology development, the NetBeans IDE has tools for doing development in C/C++ and Ruby and for building SOA applications. With the release of the NetBeans 6.5 IDE, even more developers have switched over (or come back) to using the NetBeans IDE. This course shows just some of the reasons to make the switch.

COURSE APPROACH:
This course focuses on the usage of the NetBeans IDE and understanding of features and plug-ins, using code examples to present these powerful features.

The demos for the course feature the Sun GlassFish Enterprise Server, the NetBeans IDE with NetBeans Visual Web Pack, and other plug-ins.

Content:
- Introduction to the NetBeans IDE
- A Powerful GUI Builder for Creating Desktop Applications
- Comprehensive Profiling Tools for Helping Track Down Performance Bottlenecks and Memory Leaks
- Leading-Edge Support for Scripting Languages Such as Ruby and Its Ruby On Rails Framework

Prerequisites:
A general programming background is preferred.

Objectives:
Upon completion of this course, participants should be both motivated and able to use the powerful NetBeans IDE.

Features of This Course:
- Code reviewed and demonstrated by the instructor will be available for download within a few weeks after the Java University program.
- Students will receive a printed copy of the instructor's slides.
- Material is presented by a NetBeans IDE expert.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:
- Developers

Rapid Web Application Development with Groovy and Grails

Instructor: **Graeme Rocher**
Course Level: **Intermediate**
Course Length: **Half-day Course (Sunday Afternoon and Monday Morning)**

COURSE DESCRIPTION:
Grails leverages hugely popular frameworks such as Spring, Hibernate, and SiteMesh, simplifying them by using a dynamic platform and "convention over configuration." More importantly, however, it takes integration with Java technology and Java Platform, Enterprise Edition (Java EE platform) to a new level by providing the same speed and elegance pioneered on other dynamic platforms such as Ruby and Python.

This session will help students get up to speed with the features offered by the Groovy language and Grails framework and includes lab sessions that guide them through key elements of both. In addition, students will learn how to integrate Grails with existing Java technology-based enterprise services, databases, and Web applications and how to use a blended approach mixing static and dynamically typed code to maximize the scalability of their code base.

COURSE APPROACH:
This Groovy and Grails workshop was authored by Graeme Rocher, project lead and founder of Grails. Participants will each receive a copy of *The Definitive Guide to Grails, 2nd Edition (Expert's Voice in Java)*, by Graeme Rocher and Jeff Brown.

cont. >>

Content:

The Groovy Tour

- Groovy for Java Technology Developers: The Basics
  - Syntax similarities
  - New language constructs
  - Groovy Strings
  - Closures
- What Makes Groovy Tick?
  - Groovy dynamism
  - Metaprogramming
  - Embedding Groovy

Getting Started with Grails

- Grails Introduction
  - Background, foundations, and motivations
  - Current project status
  - Why choose Grails for your project?
- Grails Basics
  - The project infrastructure
  - Running Grails scripts
  - Creating a basic create, read, update, and delete (CRUD) application
- The Grails Domain Model
  - Understanding domain models
    - » Domain-driven development with Grails
    - » Applying domain constraints
    - » Defining domain relationships
  - Working with persistence methods
    - » Saving, deleting, and updating
    - » Using dynamic finders
    - » Advanced querying with criteria and Hibernate Query Language (HQL)
- The Web Layer
  - Orchestrating requests with controllers
    - » Rendering responses
    - » Handling data binding and validation
  - Groovy views with Groovy Server Pages (GSP)
    - » Supplying the model
    - » Logic, iteration, and filtering
    - » Advanced site layouts with SiteMesh
  - Separating logic and content with tag libraries
    - » Dynamic tag library basics
    - » Logical and interactive tags
- Grails Plug-Ins
  - Plug-in basics
    - » Discovery
    - » Installation
  - Popular plug-ins
    - » Searchable
    - » Quartz
    - » Java Message Service
  - Creating plug-ins
    - » Modularizing applications
    - » Providing behavior
- Java Technology Integration
  - Packaging and deployment onto Java EE technology-based containers
  - Grails and the Java Servlet environment
  - Wiring it all together with the Spring DSL

Prerequisites:

A good knowledge of Web application development with programming languages such as the Java or JavaScript programming language and a basic understanding of HTML and Web technologies is preferred.

Objectives:

- Understand the basics of the Groovy language
- Explore Groovy's power features
- Learn about the background of Grails
- Discover the possibilities with Grails' Hibernate-powered object/relational mapping (ORM) layer
- Learn about Grails' MVC components
- Understand how to integrate Grails with existing Java technology-based components and services

Features of This Course:

- Students will receive a printed copy of the instructor's slides.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Java technology developers interested in the dynamic language landscape and looking to explore the possibilities of powerful dynamic languages

Using Java Platform, Enterprise Edition (Java EE Platform) and SOA to Help Architect and Design Robust Enterprise Applications

Instructors: **Joe Boulenouar and Frank Kieviet**
Course Level: **Intermediate to Advanced**
Course Length: **Full Day**

COURSE DESCRIPTION:

This course provides students with the knowledge needed to use Java Platform, Enterprise Edition 5 and 6 (Java EE 5 and 6 platforms) best practices and patterns to design and architect robust enterprise applications that allow for rapid change and growth. Students will gain an understanding of the latest Java EE 5 and 6 technology patterns and how they help solve important and recurring design problems. They will also learn how service-oriented architectures (SOAs), implemented in a wide range of technologies (including REST, RPC, RMI, DCOM, CORBA, and Web services), help businesses respond more quickly and cost-effectively to changing market conditions. The course also covers the Sun Enterprise Service Bus Suite — based on the Java Business Integration (JBI) specification – which helps automate, manage, and optimize business processes and workflows across systems, people, and partners and helps build robust cloud computing applications. Students will also learn best practices for preparing for Java Enterprise Architecture certification.

COURSE APPROACH:

This course focuses on the use of Java EE technology patterns from the architectural and design perspectives and also covers enterprise SOA and cloud computing. The instructors use UML diagrams and code segments to present these patterns. The demos for the course feature Sun GlassFish Enterprise Server, NetBeans Visual Web Pack, Sun Java Composite Application Platform Suite for the enterprise designer, and Sun Java System Web Server.

cont. >>

* Content subject to change.

Morning Content:

System Architecture Development and Guidelines

- Justifying the need for architecture when developing for Java EE technology-based applications
- Resolving risk factors in distributed enterprise systems
- Guidelines for effective network communication
- Guidelines for handling distributed transactions
- Analyzing quality-of-service requirements

Software Architecture

- Decomposing Java EE applications into components
- Deployment diagrams representing the architecture and design model

Use of Java EE Technology Patterns

- Describing Java EE technology patterns that assist in the presentation tier
- Web 2.0 design patterns
- Describing Java EE technology patterns that assist in the business tier
- Describing Java EE technology patterns that assist in the integration tier

Afternoon Content:

Understanding Enterprise SOA

- Using SOA for enterprise application integration
- Describing how SOA improves B2B business processes
- Service-oriented architecture and design

Building Composite Applications

- Web services design patterns
- Integrating and orchestrating applications services
- JBI components: service engines and binding components
- Enterprise Service Bus: transformation, routing, and orchestration

Building Cloud Computing Applications

- Cloud computing architecture
- Impact of Java EE technology on cloud computing
- Impact of SOA on cloud computing

Prerequisites:

Knowledge of the Java programming language and Enterprise JavaBeans (EJB) component technologies and an understanding of Java EE technology-based application servers and distributed systems is preferred.

Objectives:

Upon completion of this course, participants should understand how Java EE technology patterns can help them architect and design robust Java EE applications. They should also understand the advantages of building enterprise SOA architectures.

Features of This Course:

- Use-case diagrams illustrating a solution to a given problem are provided to the students.
- Code reviewed and demonstrated by the instructors will be available for download after completion of the course.
- Students will receive a printed copy of the instructors' slides.
- Material is presented by Sun-certified Java technology instructors.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Java EE technology architects and designers
- Project managers
- Development managers

Using the Power of JRuby and Rails to Develop Robust Applications

Instructor: **Sang Shing**
Course Level: **Beginner to Intermediate**
Course Length: **Half-day Course (Monday Afternoon)**

COURSE DESCRIPTION:

It is well known that Ruby on Rails is gaining quite a bit of popularity among developers and deployers of Web applications and for good reason. Ruby is a fun programming language to use, and Rails is considered a well-thought-out Web application framework based on development principles such as "Don't repeat yourself" (DRY) and "convention over configuration," which enable an agile yet practical development environment. JRuby on Rails provides another benefit, by leveraging the stability, reliability, and scalability of the Java platform. This course briefly goes through the interesting language characteristics of the Ruby programming language such as metaprogramming aspects, blocks, and closures. The rest of the course is devoted to learning the Rails framework — ActiveRecord, ActionController, ActionView, testing, REST support, AJAX, and deployment options — as time permits. This course is based on the contents of the "Ruby/JRuby/Rails Programming (with Passion!)" online course, which can be viewed at javapassion.com/rubyonrails. Participants are welcome to bring their own laptops to try the demos themselves during the class.

COURSE APPROACH:

The instructor will explain the concept of each topic and then provide a demonstration emphasizing the key points, followed by a brief Q&A session.

Content:

- Ruby Language Basics: Symbol, Metaprogramming, Blocks, Closure
- Building a Simple Rails Application, Step by Step
- Environment, Rake, Generator, Rails Console, Migration
- ActiveRecord, ActionController, and ActionView
- AJAX
- Testing
- REST Support
- Deployment

Prerequisites:

Some Web application development experience would be useful but is not required.

Objectives:

Upon completion of this course, participants should be able to build reasonably sophisticated Rails applications.

Features of This Course:

- Students will receive a printed copy of the instructor's slides.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Web application developers

** Content subject to change.*

Web 2.0: Building Dynamic Web Sites with AJAX and the Dojo Toolkit

Instructor: **Neil Roberts**
Course Level: **Intermediate**
Course Length: **Half-day Course (Monday Morning)**

COURSE DESCRIPTION:

This course provides the students with the skills necessary to build rich, interactive Web applications using AJAX. It explores the popular Dojo toolkit, which has AJAX components, for simplifying the creation of rich Web applications. The Dojo toolkit provides many UI components, including list and tree pickers, tabbed panes, animated buttons, rich text editing, date and color pickers, and more.

COURSE APPROACH:

The instructor will highlight, demonstrate, and discuss concepts and source code related to the development of modern dynamic Web pages.

The demos for this course feature the NetBeans IDE.

Content:

Introduction to Dojo
- Major components and a broad overview of capabilities
- Getting started: Dojo configuration and setup
- Dojo code structure
- API documentation and Dojo Book
- SitePen's Dojo Toolbox

Dojo Fundamentals
- Dojo's package system
- Base tools (dojo.trim, etc.)
- Project configuration

Document Object Model (DOM) with Dojo
- Dojo's DOM APIs
- dojo.attr
- dojo.place
- dojo.style
- dojo.html
- dojo.query
- dojo.behavior

Events with Dojo
- Using callbacks in Dojo
- Event listeners with dojo.connect

Intro to AJAX
- AJAX with Dojo
- Dojo's AJAX APIs
- Data serialization
- Deferred use in Dojo

Dijit: The Dojo Widget System
- What is a Dijit?
- Dijit sections
- Layout widgets
- Form widgets
- Editor
- Tree
- Dojo data

Quick Overview of Advanced Topics
- Unit Testing in Dojo
- Using the Dojo Objective Harness (DOH) for unit testing
- Testing methods
- What's in DojoX
- GFX
- Charting
- Grid

Prerequisites:

Java technology programming experience is preferred.

Objectives:

Upon completion of this course, participants should be able to create Web applications utilizing AJAX. They will also be able to integrate Dojo toolkit Web components into their Web pages.

Features of This Course:

- Code reviewed and demonstrated by the instructor will be available for download upon completion of the course.
- Students will receive a printed copy of the instructor's slides.
- Material is presented by a Sun-certified Java technology instructor.
- The instructor will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Developers of Java technology-based Web applications

Web 2.0: Leveraging Project jMaki, Google Web Toolkits, and Flex for Rapid Web Site Development

Instructors: **David Geary and Evan Troyka**
Course Level: **Intermediate**
Course Length: **Half-day Course (Monday Afternoon)**

COURSE DESCRIPTION:

This course presents three programming frameworks for developing modern Web applications: Project jMaki, Google Web Toolkit (GWT), and Flex.

Project jMaki is a lightweight client-server framework for creating JavaScript technology-centric AJAX applications using CSS layouts, a widget-based interaction model, and client services such as publish/subscribe events to tie widgets together, JavaScript technology-based action handlers, and a generic proxy to interact with external RESTful Web services. NetBeans IDE users can utilize the jMaki plug-in and the AJAX Update Center that hosts plug-ins.

The Google Web Toolkit is a Java technology-based Web application framework that lets you implement AJAX-enabled Web applications without knowledge of AJAX or JavaScript technologies. The course starts with GWT fundamentals and works its way up to advanced topics such as implementing custom widgets, database access, and using GWM (GWT Windowing Manager). Using factories or creating objects with the new keyword can be simplified with dependency injection using Google Guice. See how rich, interactive Web applications can be developed with this exciting framework.

Flex is a highly productive, free open-source framework for building and maintaining expressive Web applications that deploy consistently on all major browsers, desktops, and operating systems.

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* Content subject to change.

COURSE APPROACH:

The instructors will highlight, demonstrate, and discuss concepts and source code related to the development of modern dynamic Web pages.

Content:

Introducing Project jMaki

- Description of the architecture of the Project jMaki framework
- Description and demonstration of a Project jMaki Web application
- Description and demonstration of the jMaki plug-in for the NetBeans IDE

The Google Web Toolkit

- GWT and API Introduction
- Client and server-side code example
- Integrating JavaScript technology
- What's new and different in GWT 1.4.XX
- Custom widgets
- Database access
- GWT Window Manager (GWM)
- Google Guice (dependency injection framework)

Flex

- Introduction
- ActionScript, HTTPServices, and data binding
- Drag and drop
- Components
- Integrating Flex with the Java programming language

Prerequisites:

Java technology programming experience is preferred. Students need to be familiar with AJAX, JavaScript technology, and other Web development technologies such as HTML and CSS.

Objectives:

Upon completion of this course, participants should be able to create modern dynamic Web applications utilizing Project jMaki, GWT, and Flex.

Features of This Course:

- Code reviewed and demonstrated by the instructors will be available for download upon completion of the course.
- Student will receive a printed copy of instructors' slides.
- Material is presented by qualified instructors.
- The instructors will be available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Developers of Java technology-based Web applications

Writing Powerful Real-Time Web Applications, Using Grizzly Comet

Instructor: **Jean-François Arcand**
Course Level: **Intermediate**
Course Length: **Half-day Course (Sunday Afternoon)**

COURSE DESCRIPTION:

Emerging AJAX techniques — variously called AJAX Push, Comet, Reverse AJAX, and HTTP streaming — are bringing revolutionary changes to Web application interactivity, truly masking the Web more about participation. This course provides a detailed introduction to the asynchronous Web and its application to social computing, explaining the underlying protocols and APIs, the challenges for application servers, and the high-level techniques available to application developers. Attendees will take away the information they need to add multiuser collaboration and notification features to their application by learning the Grizzly Comet Framework, an important piece of the GlassFish application server platform.

COURSE APPROACH:

The instructors will highlight, demonstrate, and discuss concepts and source code related to the development of modern dynamic Web applications with Comet/AJAX Push.

Content:

- Introduction to Comet/AJAX Push
- Description and Demonstration of the Anatomy of an AJAX Push/Comet Interaction
- Pros and Cons of Using an AJAX Push/Comet Application
- Which Web Server Supports AJAX Push/Comet and How
- Which AJAX Library Supports AJAX Push/Comet and How
- Demo 1: Simple Chat Using ICEFaces
- Overview of the Bayeux Protocol
- Demo 2: Simple Chat Using the Bayeux Protocol
- Overview of the Atmosphere Comet Framework
- Demo 3: Simple Chat Using Atmosphere
- Introduction to Grizzly Comet Framework Concepts and Components
- Discussion and Demonstration of the Use of Prebuilt Grizzly Comet-Enabled Components
- Rebuilding Twitter.com, Step by Step, with Grizzly Comet Framework
- Demo 4: Twitter.com Powered by Grizzly Comet Framework
- Improving the Twitter.com Demo by Adding Clustering/High-Availability Support, Using the Grizzly Comet Framework Java Message Service Extension
- Demo 5: Clustered Twitter.com Powered by Grizzly Comet Framework
- Conclusion

Prerequisites:

Knowledge of Java technology; Java Platform, Enterprise Edition (Java EE platform); and AJAX is preferred.

Objectives:

Upon completion of this course, participants should have an understanding of using the Grizzly Comet Framework as the standard programming model for writing AJAX Push/Comet applications.

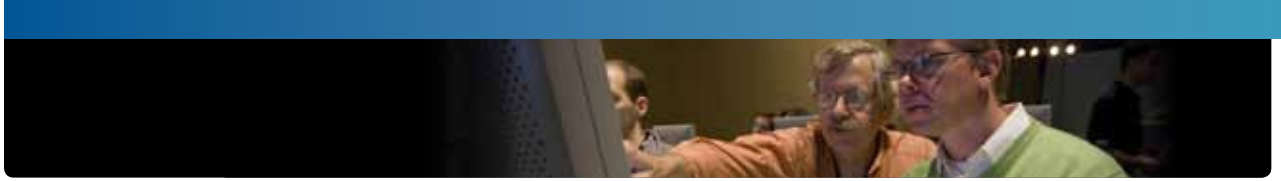
Features of This Course:

- Selections of code reviewed and demonstrated by the instructor are available for download after completion of the course.
- Students will receive a printed copy of the instructor's slides.
- The instructor is available for Q&A immediately following the course.

Job Roles This Course Is Applicable to:

- Application developers

** Content subject to change.*



LAB-4449 Semantic Web Programming

Matthew Fisher, Progeny Systems
John Hebeler, BBN Technologies

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The semantic Web offers a powerful way to express, share, and integrate large-scale information. Applications bring the semantic Web to life, revealing the information's value.

This Hands-on Lab outlines a step-by-step, code-based approach to enable participants to quickly master the fundamentals of building a semantic Web application. It establishes the key semantic Web programming impacts and concepts, such as RDF, OWL, SPARQL, and SWRL, along with programming tools such as the Jena Semantic Web Framework and the Pellet reasoner. As an example, it focuses on social networking information.

The presenters dynamically build a social network knowledge model(p:) based on OWL. They navigate through the model to show friend networks and attributes and then query the model for specific friend characteristics such as friends who have related interests or similar locations. Next they integrate existing social network ontologies and instance data from FOAF(f:) and SIOC(s:) and align the information sources to unify similar semantics, regardless of the actual names and concepts (e.g., p:friend is a type of f:knows, s:Joe H is the same as f:Joe Houser, and so on). This alignment information guides the Pellet reasoner to infer relationships across the entire integrated model.

The preenters also query the unified model with concepts that extend the social network seamlessly across the multiple information ontologies — our friends are our friends regardless of origin.

LAB-5502 Your First Mobile Game

Andrew Korostelev, Sun Microsystems, Inc.

| *Introductory*

This Hands-on Lab takes you through the process of developing a mobile game with the assistance of Game Builder, provided by the NetBeans™ Java™ Platform, Micro Edition (Java ME platform) module. Participants will learn how to quickly create compelling SVG UIs using new SVG form components support. They will also get the basics of creating an MIDP application and connecting it to a Web service.

LAB-5503 Combine Btrace and DTrace to Diagnose Complex Java™ Technology-Based Application Problems

Vincent Liu, Sun Microsystems, Inc.
Wang Yu, Sun Microsystems, Inc.

| *Introductory*

Diagnosing complex Java™ technology-based application problems, such as race condition memory leaks and performance bottlenecks, is a big challenge. The debugger or profiler may be no help, because the timing had to be very precise for the issue to occur in the first place, and logging is totally useless, because of the thousands of lines of logs that would be difficult to safely filter out. In many cases, the bug is coming from a third-party package and the source codes are not available to modify.

Btrace is a safe, dynamic tracing tool for the Java platform. It works by dynamically (bytecode) instrumenting classes of a running Java technology-based program. Combine Btrace and Dtrace on the Solaris™ 10 operating system (Solaris 10 OS), and you can diagnose complex Java technology problems in a lighter way. In this Hands-on Lab, you can learn how to write Btrace classes (with Dtrace scripts) to find race condition memory leaks and performance bottleneck problems in Java technology-based applications.

LAB-5529 Project Fortress Programming Lab, or "You Too Can Write Concurrent Programs with Minimal Effort"

Christine Flood, Sun Microsystems, Inc.

| *Advanced*

Project Fortress makes it simple to write concurrent programs, abstracting away threads and locks and enabling you to write your program by using mathematical notation. This Hands-on Lab runs some simple Fortress programs and helps you write your own.

LAB-5530 Building Secure SOA Applications Made Easy by GlassFish™ Application Server ESB

Edward Chou, Sun Microsystems, Inc.
Sherry Weng, Sun Microsystems, Inc.

| *Introductory*

SOA is increasingly becoming a popular choice for implementing business requirements, but building secure SOA applications may not be as easy as you would think. With the right set of tools, however, building secure SOA applications can be as easy as just a few mouse clicks.

This Hands-on Lab shows how to build a simple SOA application by using various components (HTTP, POJO, JMS, File) from the GlassFish™ application server enterprise service bus (ESB) product stack. Participants will learn how to apply various security options to a SOA application, using standard and interoperable WS-Security options such as user name authentication and mutual certificate security.

LAB-5531 Build and Host Your Killer Facebook App with zembly

Gail Anderson, Anderson Software Group, Inc.
Paul Anderson, Anderson Software Group, Inc.

| *Introductory*

Imagine a programmable Web in which the browser is your development environment. Using zembly (zembly.com), you can build social applications in a social networking environment. In this Hands-on Lab, participants will build Capital Punishment, a quiz-based Facebook application. They will learn how to create a Facebook application with zembly and see how to leverage some of the Facebook integration points.

** Content subject to change.*

LAB-5532 Breathe in JavaFX™ Technology

Fabiola Gallegos Rios, Sun Microsystems, Inc.
Michal Skvor, Sun Microsystems, Inc.

| *Introductory*

In this Hands-on Lab, developers will deeply explore JavaFX™ technology — including the JavaFX technology-based compiler and runtime tools, graphics, media, Web services, and rich text libraries — to create a rich Internet application for the desktop, browser, and mobile platforms.

This session goes through JavaFX platform terminology and concepts, looks at the wealth of resources, and shows how the JavaFX platform enables developers to quickly and easily develop rich Internet applications and next-generation services that can be proliferated across virtually any device.

Participants will create and deploy a set of RIAs, with audio, video, and other rich media, and a JavaFX mobile application capable of browsing a media resource such as an image or audio. The media browser application will load images with background sound.

The session demonstrates how JavaFX technology works across the browser, the desktop, and mobile screens without forcing developers to code different application interfaces using divergent technologies. In the session, developers will gain experience with successful tools, technologies, and best practices for seamlessly building and delivering next-generation rich Internet applications, understand the capabilities of JavaFX technology, and learn about the JavaFX Script high-performance declarative programming language.

LAB-5533 Java™ Technology Strikes Back on the Client Side: Easier Development and Deployment

Jason Huang, Sun Microsystems, Inc.
Joey Shen, Sun Microsystems, Inc.

| *Introductory*

Java™ technology was fading as a client-side technology in the age of Web 2.0. Fortunately, Java Platform, Standard Edition 6 (Java SE 6 platform) update 10 has significantly changed the behavior of Java technology-based applications running on the client side. With the improvement of both development and deployment, Java technology now strikes back on the client side.

In this Hands-on Lab, participants will learn how to build and deploy Java/JavaFX™ technology-based applications that run in the browser, interact with the browser context, and also can be dragged out of the browser.

LAB-5534 Create Your Own Fantasy World for Your Mobile Device

Fabiola Gallegos Rios, Sun Microsystems, Inc.
Michal Skvor, Sun Microsystems, Inc.

| *Introductory*

In this Hands-on Lab, developers will be able to create their own massively multiplayer online role-playing game (MMORPG) for a mobile device; personalize their own fantasy character; and assign it abilities, powers, and skills. They will interact with other players in a mobile virtual world and take control of other characters' actions.

With NetBeans™ 6.5 (7.0) IDE mobility features, participants in this Hands-on Lab will be able to develop mobile game applications with a visual editor designed for the MIDP 2.0 game API and connect through the J2ME Web Services API (JSR 172), which enables Java™ 2 Platform, Micro Edition (J2ME™ platform) devices to be Web services clients, and provide a programming model that is consistent with the standard Web services platform. Finally, they will take advantage of the new Data Binding property editor, together with the DataSet component in the Visual Mobile Designer.

Participants will gain experience with successful tools, technologies, and best practices for seamlessly building a wireless application consuming Web services using Java Platform, Micro Edition (Java ME platform) and Java Platform, Enterprise Edition (Java EE platform) technologies. They will end up with a real-world mobile application accessing a server and be able to play their MMORPG on the device.

LAB-5538 The Real-Time Java™ Platform Programming Challenge: Taming Timing Troubles

David Holmes, Sun Microsystems, Inc.
Frederic Parain, Sun Microsystems, Inc.

| *Advanced*

Is the Java™ platform ready for real time? Build your own real-time Java technology-based application, and see for yourself.

The Real-Time Specification for Java supercharges the Java programming language, by bringing

- Precise scheduling through real-time threads
- High levels of predictability with new memory management schemes
- Safe, asynchronous control in the face of real-world events
- Timing precision down to the nanosecond
- The ability to code entire applications — even device drivers — in the Java programming language

The Real-Time Specification for Java (JSR 01) provides several key application interfaces that enable developers to create programs with predictable timing and deterministic program execution.

In this Hands-on Lab, participants will undertake a series of exercises that introduce some of these key application interfaces and enable the development of a simple real-time system. They will also learn how they can use the Thread Scheduling Visualizer to delve inside their application to see timing relationships and resolve timing issues.

Each lab exercise is preceded by up to 15 minutes of presentation introducing the concepts and APIs involved in the exercise.

LAB-5539 Touch Your Application! Building Slick, Touch-Enabled UIs for Java™ Platform, Micro Edition

Karol Harezlak, Sun Microsystems, Inc.
Lukas Hasik, Sun Microsystems, Inc.

| *Introductory*

In this Hands-on Lab, participants will learn about challenges and problems in everyday UI development for Java™ Platform, Micro Edition (Java ME platform) for touch-screen-based devices. The session also explains the architecture of rich

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scalable vector graphics (SVG) UI widgets. The rich SVG UI touch-enabled library helps speed up the process of designing slick and modern UIs for touch-screen devices. The session discusses the most-common scenarios for this type of UI development and illustrates them with source code examples as well as UI screen shots and schemas.

The target audience for this session is the rapidly growing number of developers for large, touch-screen, Java ME technology-based devices such as the Samsung Omnia/Instinct, Nokia 5800 Xpress Music, or BlackBerry Storm.

At the end of the session, the participants will be able to take the application home in their phones. Because rich SVG UI widgets also support devices without touch screens, the application will work on most devices with the Scalable 2D Vector Graphics API for J2ME™ (JSR 226).

LAB-5540 Save Your Time: Build Apps Quickly with the Rich Client Platform (RCP)

Lukas Hasik, Sun Microsystems, Inc.
Jiri Rechtacek, Sun Microsystems, Inc.

| *Introductory*

Why should you care about the Rich Client Platform?

Programmers can build their own applications on existing platforms. Rather than having to write a complete application from scratch, they can benefit from proven and tested features of the framework provided by the platform. Building on a platform facilitates faster application development and integration while the cross-platform burden is assumed by the platform developers.

The NetBeans™ platform is an increasingly viable option for desktop programmers, because it is based on Swing and because it offers many services and boilerplate code that every desktop application needs. Because the NetBeans architecture is modular, it's easy to create applications that are robust and extensible.

This Hands-on Lab shows you how you can easily port an existing Swing application into an application based on the NetBeans/RCP platform. It also demonstrates how to enhance the existing functionality of the application with a set of features that would be hard to implement on your own but are provided by the platform. The result will be a cool professional-looking and easily extensible application that demonstrates the main APIs of the NetBeans platform.

LAB-5542 Jersey: Building RESTful Web Services on the Java™ Platform

Srinivas Bhimisetty, Sun Microsystems, Inc.
Martin Matula, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Jersey is the reference implementation of the Java™ API for RESTful Web Services (JAX-RS). It enables users to use the Java programming language or another language based on the Java Virtual Machine to build RESTful Web services in a clean and very intuitive way.

This Hands-on Lab shows how to download and set up Jersey and develop a simple Web service with it. Participants will then modify the service to use some of the more advanced features such as input parameters, resource injection, and returning several alternative representations (plain text, JavaScript Object Notation [JSON], XML). The presentation also discusses what value-add features Jersey offers besides the implementation of the standard JAX-RS API and shows how to develop a client interacting with a RESTful Web service, using the Jersey client API.

LAB-5546 Developing Composite SIP Applications with Custom Application Routers

Sony Manuel, Sun Microsystems, Inc.
Varun Rupela, Sun Microsystems, Inc.

| *Advanced*

This Hands-on Lab takes you through the basics of an application router for developing composite SIP applications as defined by the SIP Servlet specification v1.1 (JSR 289). In the lab, participants will learn how to develop a custom application router for application selection and composition, package and deploy the application router and a few SIP applications on Sailfin, and test them.

LAB-5556 Complex Event Processing with the GlassFish™ Application Server ESB Intelligent Event Processor

Bing Lu, Sun Microsystems, Inc.
Sang Shin, Sun Microsystems, Inc.

| *Introductory*

Traditionally, business intelligence was gathered by analyzing past business data to predict business opportunities or threats. Often the value of any given intelligence significantly erodes with time, in some cases in seconds. Complex event processing (CEP) involves the continuous processing and analysis of high-volume, high-speed data streams from inside and outside an organization. It detects business-critical issues as they happen and routes, filters, and processes business events continuously over an indeterminate period of time.

The GlassFish™ appllication server ESB Intelligent Event Processor (IEP) project is an open-source CEP project. With IEP you can create event processors that process continuous, unbounded, rapidly changing data streams and detect business events, thus gathering business intelligence in real time continuously.

Here are some real-life questions that can be answered by IEP:

- How many times did Fred log in as root in the last 24 hours?
- How many times has a business process been triggered in the last hour? What is the average execution time?
- Has a credit card been charged for gasoline twice within 1 hour?
- Is the number of Java Message Service messages in the broker increasing over time? What has changed?

It can also raise an alert when a stock price jumps more than 10% relative to its one-minute moving average price.

This Hands-on Lab explores complex event processing and the IEP engine's Java™ technology-based API through examples.

** Content subject to change.*

LAB-5557 Build a RESTful Client-Server Rich Internet Application with JavaFX™ Technology and Jersey (JSR 310)

David Delabassee, Sun Microsystems, Inc.
Sebastien Stormacq, Sun Microsystems, Inc.

| *Introductory*

Rich Internet Applications — RIA — do require a strong service access and data access layer located on the back-end, just as traditional or web based applications. It is therefore essential to combine desktop technologies and server technologies in order to provide fast, efficient and secure access to your data.

This lab will teach students how to combine desktop technologies, such as JavaFX™ technologies, and back-end technologies, like web services and REST based services to build state of the art desktop applications.

This lab will go through a very simple example of REST data retrieval and a Java FX graphical representation of these data.

This lab will use the following technologies:
• RESTful web service and JSR 310 (Jersey) API on the server side
• JavaFX on the client side

The JavaFX application will asynchronously poll RESTful web services to collect data that will be used to dynamicaly update the client rich UI.

LAB-5558 Developing Real-Time Revolutionary Web Applications, Using Comet and AJAX

Doris Chen, Sun Microsystems, Inc.
Carol McDonald, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Join the asynchronous Web revolution! Emerging AJAX techniques — variously called AJAX Push, Comet, and HTTP streaming — are bringing revolutionary changes to Web application interactivity, moving the Web into the Participation Age. Because AJAX-based applications are almost becoming the de facto technology for designing Web-based applications, it is more and more important that such applications react on the fly, or in real time, to both client and server events. Aajx can be used to enable the browser to request information from the Web server but does not allow a server to push updates to a browser. Comet solves this problem. It is a technology that enables Web clients and Web servers to communicate asynchronously, enabling real-time operations and functions previously unheard of with traditional Web applications to approach the capabilities of desktop applications.

Learn more in this Hands-on Lab.

LAB-5562 Project Snowman: Developing a 3-D Multiplayer Game, Using Project Darkstar

Owen Kellett, Sun Microsystems, Inc.
Daniel Templeton, Sun Microsystems, Inc.

| *Introductory*

Project Darkstar is a scalable service platform built specifically for games, virtual worlds, and the like. What Java™ Platform, Enterprise Edition (Java EE platform) has done for business applications, Project Darkstar is doing for the game industry.

In contrast to traditional business applications, though, massively multiplayer online role-playing games, virtual worlds, and other networked games require very low latency and short user response time. This is at odds with the high transactional throughput focus of today's application servers. Project Darkstar boasts a simple and intuitive API tailored to these unique requirements.

In this Hands-on Lab, participants will walk through the process of building a 3-D, multiplayer, capture-the-flag-style snowball-fight game from the ground up. Built with Project Darkstar, Project Snowman will expose attendees not only to the details of the Project Darkstar API but also to typical challenges in 3-D game design.

LAB-5564 PetClinic in the Clouds: Scaling a Classic Enterprise Application

Shay Hassidim, GigaSpaces
Daniel Templeton, Sun Microsystems, Inc.

| *Introductory*

"Cloud computing" is the hot new buzzword, and it's rapidly causing a revolution in the way applications are deployed and managed by IT organizations. Where applications used to run on a fixed set of resources safely nestled in the company data center, a new breed of applications is breaking free of the constraints of the glass walls and expanding out into the cloud. These cloud applications are able to grow and shrink elastically as application workloads fluctuate, and because the resources live in the cloud, companies pay only for the resources they use, saving money on otherwise idle resources during off-peak periods. Many organizations around the world are turning to cloud computing for their IT needs, utilizing public resources to run their testing and production environments.

In this Hands-on Lab, participants will take a popular Web application (the Spring PetClinic sample application) and modify it so that it can be deployed on the Amazon EC2 cloud computing infrastructure. They will be exposed to using the GigaSpaces platform as a service, in-memory data grid concepts, the OpenSpaces framework, cloud computing concepts, and persistence as a service using Sun's MySQL™ database technology.

LAB-5566 Adding Some Oomph to the Java™ VisualVM Tool

Anton Epple, Eppleton
Geertjan Wielenga, Sun Microsystems, Inc.

| *Introductory*

The Java™ VisualVM tool provides a great set of tools for analyzing, diagnosing, and troubleshooting your Java technology-based applications. However, did you know that that is only its default behavior? You can completely deconstruct and rebuild the Java VisualVM tool to perform whatever kind of analysis you would like it to. That's because it is a modular application. Simply put, the Java VisualVM tool is a framework for Java technology-based analysis.

In this Hands-on Lab, participants will learn how to build on top of the framework and make it perform exactly those kinds of troubleshooting tasks they require. They will also learn how to create new modules and how to use the Java VisualVM tool's APIs effectively.

LAB-5569 ODFDOM: Changing ODF Documents, Using the New Open-Source Multitiered API

Christian Lippka, Sun Microsystems, Inc.
Svante Schubert, Sun Microsystems, Inc.

| *Introductory*

The OpenDocument format (ODF) is an XML-based, ISO-standardized file format for electronic office documents such as spreadsheets, charts, presentations, and word processing documents. The new ODFDOM open-source library is a free Java™ 5 platform framework, sponsored by Sun, for easily creating and manipulating ODF documents.

This Hands-on Lab gives participants the opportunity to get in touch with this exciting new API and a chance to talk with its architects. It provides exercises as well as insights into further ODFDOM goals and its language independence.

The ODFDOM wiki (http://odftoolkit.org/projects/odftoolkit/pages/ODFDOM) gives further details.

LAB-5572 Building OSGi Plug-Ins for the GlassFish™ v3 Application Server Administration Console

Anissa Lam, Sun Microsystems, Inc.
Ken Paulsen, Sun Microsystems, Inc.

| *Introductory*

The GlassFish™ application server has become the most popular developer platform for creating Java™ Platform, Enterprise Edition (Java EE platform) technology-based applications. Its success owes largely to its strong community and the variety of tools and add-ons being created for it. GlassFish application server v3 embraces community collaboration, by creating a server that is immensely flexible in that it leverages OSGi and supports plug-ins.

This Hands-on Lab explores how developers can create new utilities and applications for GlassFish application server v3 by creating OSGi plug-in bundles. Participants will learn about the architecture used to create OSGi-enabled Web applications. The session presents some pitfalls and strategies to overcome them. Participants will have the option of creating one of three different plug-ins during the lab, or they can customize one of those examples to create their own unique plug-in.

LAB-5573 Applying JavaScript™ Technology-Based Tookits to Web Projects in the NetBeans™ IDE

Troy Giunipero, Sun Microsystems, Inc.
Geertjan Wielenga, Sun Microsystems, Inc.

| *Introductory*

Nowadays, Web applications are making increasing use of JavaScript™ technology-based toolkits to overcome browser incompatibilities and utilize code that is increasingly maintainable, accessible, and standards-compliant. Toolkits comprise primarily widgets that are made up of JavaScript technology and cascading style sheets (CSS) and can be added to an application in a modular fashion, enabling Web pages to behave more like desktop interfaces.

This Hands-on Lab demonstrates how to apply various JavaScript technology-based toolkits to a Web project in the NetBeans™ IDE. It demonstrates two techniques:

1. Adding a bundled toolkit to a Web project
2. Registering a toolkit in the IDE as a JavaScript™ technology-based library

LAB-5960 Storing Data in the Cloud

Chris Kutler, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Cloud storage services provide immediate Internet-based access to highly scalable, on-demand, pay-per-use data storage capabilities.

This Hands-on Lab shows how to build cloud-based applications that leverage RESTful storage service APIs to access Sun's storage service. First, you'll use the Service Administration and WebDAV APIs to build an application that stores files in a volume, takes snapshots of the volume's contents, and creates clones from the snapshots. Next, you'll learn how to use the S3-compatible storage APIs to create buckets and manage objects in the buckets. Last, you'll learn how to use the Metrics API to monitor an account's storage usage.

LAB-6245 Making a Java™, Swing, JavaServer™ Pages, and JavaFX™ Technology Smoothie

Inyoung Cho, Sun Microsystems, Inc.
Cindy Church, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

Creating rich Internet applications (RIAs) is fun and cool with JavaFX™ technology, but how do you leverage existing Java™ technology-based objects? In this Hands-on Lab, participants will learn how to create Swing nodes in the JavaFX technology-based scene graph, build JavaFX applications with JavaFX technology-based Swing control components, and build an RIA with JavaFX and JavaServer Pages™ technology.

LAB-6264 Implementing Enterprise Integration Patterns with GlassFish ESB and OpenESB v3

Keith Babo, Sun Microsystems, Inc.
Andreas Egloff, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

The Enterprise Integration Patterns (EIP) catalog provides a set of blueprints for solving the most common integration problems in your enterprise. Although the blueprints are great, you still have to come up with an implementation, and this is where most developers look for help. Do you need to implement the patterns along with your business logic? What can your application infrastructure do to help, and how do EIP concepts map to your existing architecture (service-oriented architecture [SOA], message-oriented middleware [MOM], enterprise service bus [ESB])?

This Hands-on Lab provides a hands-on approach to selecting and implementing the right EIPs for a variety of real-world integration scenarios. Participants will use the first-class EIP support available in OpenESB v3 to define, configure, and deploy pattern-based applications to their GlassFish ESB runtime. The lab also covers the relationship of EIP to existing SOA and Web services standards and technologies. Expect to come away with a new level of understanding of how you can leverage EIPs in your enterprise.

** Content subject to change.*

LAB-6727 Web Application Security with OpenSSO: From Simple Log-In to Single Sign-On to Federation

Sean Brydon, Sun Microsystems, Inc.
Pat Patterson, Sun Microsystems, Inc.

| *Introductory*

All Web applications need security. Application-level security knowledge is becoming more important for developers. In this Hands-on Lab, learn about security concepts such as single sign-on (SSO) and federation and put them into action, learn about the OpenSSO security framework and services, and learn how you can use this open-source project to secure your own applications.

LAB-6770 JavaFX™ Technology in Your Back Pocket: Developing Content with JavaFX Mobile Technology

Angela Caicedo, Sun Microsystems, Inc.
Mauricio Leal, Sun Microsystems, Inc.

MOBILITY | *Introductory*

Because this is the first year of JavaFX™ Mobile technology, this Hands-on Lab is designed to be an introduction to the JavaFX Mobile platform, concepts, development, and deployment. The idea is to start with a cool desktop application and bring it into the mobile space, taking into consideration the resources and user interface limitations (Exercise 1). The session offers a multimedia experience by providing access to a Web service and showing pictures on the device with all the Media, MediaPlayer, and MediaView objects (Exercise 2), which shows how to have JavaFX Script code interact with native Java™ Platform, Micro Edition (Java ME platform) code. The session also includes a Bluetooth-type application that demonstrates the power of animation on the JavaFX Mobile platform and interacts with each user.

LAB-6771 Build RIA Pet Catalog Clients with Dojo/MySQL™ Database/JavaFX™ Platform/RESTful Web Services

Carol McDonald, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The goal of the Java™ API for RESTful Web Services (JAX-RS) is to provide a high-level declarative programming model for such services that is easy to use and encourages development according to REST tenets. Services built with this API are deployable with a variety of Web container technologies and benefit from built-in support for best-practice HTTP usage patterns and conventions.

This Hands-on Lab provides an overview of the JAX-RS API and walks developers through the design process for a sample RESTful service.

Dojo is an open-source DHTML toolkit written in the JavaScript™ programming language. The new JavaFX™ platform brings rich Internet applications to all the screens of your life.

In the lab, participants will use the NetBeans™ IDE to rapidly develop JAX-RS, Dojo, and JavaFX applications and then deploy them on the GlassFish™ application server, with Java DB or the MySQL™ database.

LAB-6808 Working with PDF and Java™ Technology

Duane Nickull, Adobe Systems
James Ward, Adobe Systems

CORE TECHNOLOGY: Java EE Technology | *Introductory*

The PDF ISO standard has experienced greatly increased adoption by government and enterprises. Many of these have requirements to round-trip information between a Java™ 2 Platform, Enterprise Edition (J2EE™ platform) environment and PDF forms or static documents.

This Hands-on Lab is approximately 25% presentation and 75% coding and working with the PDF libraries. It explores the core Java technology-based PDF libraries, how to create PDF documents, how to read and write to and from file systems, how to get PDF attachments, how to access metadata libraries, and more.

The lab environment includes JDK™ software, JBoss, and Adobe LiveCycle Enterprise Suite. Developers who want to continue with the development will be able to take the environment home.

** Content subject to change.*

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT

The adoption of Java™ technology for media continues to grow — fast. On television, tens of millions of viewers are enjoying Java content delivered on Blu-ray Disc, Tru2way, and other digital TV devices, while on the desktop, the lines between local and network computing blur as content steadily migrates into the cloud. Rich Internet applications (RIAs) have changed the software landscape by making it easier to access and share content; creating new business models; and revolutionizing the ways we deliver software and services to the market. We're even seeing traditional applications such as email, calendars, or word-processing software replaced by online equivalents.

Consumers have become increasingly comfortable letting their online activities move into the cloud, and software and content providers are finding new ways of allowing those consumers to access, share, and customize content and enhance their experience. Because so much content lives on the network, demand is exploding for platforms that can enable secure, interactive content, applications, and services that run across a variety of clients.

Java technology is the most widely deployed platform on the planet, with over 85% of desktops and more than 3 billion mobile handsets. And its selection as the software platform for DTV standards worldwide makes it an ideal solution for this migration, providing secure access to a broad range of system capabilities and the ability to handle complex computations.

Consumers are demanding rich, interactive, entertaining experiences that are familiar and intuitive. Developers and designers are looking for platforms and tools, like JavaFX™ technology, that can enable them to work more closely together, incorporating rich animation, media, and scalable fonts and graphics into experiences that can be delivered easily and seamlessly across the spectrum of consumer devices.

Topics include:

> Making the three-screen vision of unified experiences across computer, TV, and mobile device a reality — best practices, case studies and implementations
> Successfully addressing key development challenges such as integration costs and software consistency across devices
> Using scripting languages and tools such as JavaFX technology for the creation of rich media and interactive content
> Developing for Tru2way, Blu-ray Disc, and other GEM-based platforms
> Exploring new development tools, authoring paradigms, scripting languages, modeling systems, and tools for testing and optimizing content for delivery
> Leveraging best practices for delivering compatible, efficient content across diverse hardware
> Determining which applications will consumers respond to: advanced advertising, interactivity, social computing, widgets — or none of the above?
> Cool Stuff: New approaches and innovative ideas helping to accelerate adoption of rich Internet applications, or applicability of rich media and content.

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4842	A Music Visualizer with the Java™ Media Framework API and JavaFX™ Technology	Lucas Jordan, EffectiveUI	CS	*Introductory*
TS-4538	A Virtual Multimedia Office	Eltjo Boersma, Ericsson • Erik Reitsma, Ericsson	CS	*Introductory*
TS-3896	Accessing RESTful Web Services from the JavaFX™ Script Platform	Akhil Arora, Sun Microsystems, Inc. • Kinsley Wong, Sun Microsystems, Inc.	SV:WB	*Introductory*
TS-4854	Beyond Broadcast: Building and Optimizing Interactive Television Applications with Two-Way Data	Anne Dirkse, enableTV, Inc. • Wendy Lally, enableTV, Inc.	CS	*Advanced*
TS-4514	Building Rich Internet Applications with the JavaFX™ Programming Language	Max Katz, Exadel	SV:WB	*Introductory*
TS-4403	Creating Games with the Open-Source Multithreaded Game Engine (MTGame)	Doug Twilleager, Sun Microsystems, Inc.	CS	*Advanced*
TS-5034	Developing Smart Java™ Code with Semantic Web Technology	Holger Knublauch, TopQuadrant, Inc.	SV:WB • CT:SE • CS	*Introductory*
TS-4789	Developing Visually Stunning 3-D User Experiences with Java™ Technology and M3G on Mobile	Peter Horsman, ARM Ltd.	CS	*Introductory*

RM > RICH MEDIA APPLICATIONS AND INTERACTIVE | **MB** > MOBILITY | **SV:SOA** > SERVICES: SOA Platform and Middleware Services | **SV:WB** > SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms

CT:SE > CORE TECHNOLOGIES: Java SE and Java Technology for the Desktop | **CT:EE** > CORE TECHNOLOGIES: Java EE Technology | **CT:EM** > CORE TECHNOLOGIES: Embedded/Real-time/Java Card Technologies | **TL** > ALL TOPICS: Tools and Languages | **CS** > ALL TOPICS: Cool Stuff

** Content subject to change.*

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4144	Dynamic Voice Recognition Grammar Using JSAPI2: Recognizing What You Don't Program	Eric Smith, Burning Sun Enterprises	CT:SE	*Advanced*
TS-5487	Easily Creating Games for Blu-ray Disc, tru2way, MHP and Other TV Platforms	Bill Foote, Sun Microsystems, Inc.	CS	*Advanced*
TS-5575	Extreme GUI Makeover (Hybrid Swing and JavaFX™ Technology)	Amy Fowler, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	CT:SE	*Introductory*
TS-4564	Gaming Package for Java™ Technology on TV: Solving the Gaming Problem	Amir Amit, Sun Microsystems, Inc. • Sourath Roy, Sun Microsystems, Inc.	CS	*Introductory*
TS-5494	Getting the Most from the Designers with the JavaFX™ Production Suite	Martin Brehovsky, Sun Microsystems, Inc. Lukas Waldmann, Sun Microsystems, Inc.		*Introductory*
TS-5035	How to BluTube: Broadcasting over Broadband to a Blu-ray Player	Won Baek, Dreamer • John Kim, Dreamer	CS	*Advanced*
TS-4521	Interactive Applications Development for TV	Kobi Luz, Sun Microsystems, Inc. • Tamir Shabat, Sun Microsystems, Inc.		*Introductory*
TS-5576	Introduction to the JavaFX™ Script Programming Language	Richard Bair, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.		*Introductory*
TS-5577	Introduction to the JavaFX™ Technology-Based API (Graphics and Animation)	Martin Brehovsky, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.		*Introductory*
TS-5280	JavaFX™ Platform: Animations, Timelines, and Collision Analysis for Games	Peter Pilgrim, LLoyds TSB	CT:SE • CS	*Introductory*
TS-3968	JavaFX™ Programming Language + Groovy = Beauty + Productivity	Dierk König, Canoo Engineering AG	CT:SE • CS • TL	*Advanced*
TS-4142	JavaFX™ Technology + JSAPI2 = VoiceFX: Add Voice Recognition to Your JavaFX Applications	Eric Smith, Burning Sun Enterprises	CT:SE • CS	*Introductory*
TS-5574	JavaFX™ Technology for Swing Developers	Richard Bair, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	CT:SE	*Introductory*
TS-4069	JavaFX™ Technology in Action: From Design Tool to Desktop, to Mobile Device	Mike Mannion, Canoo Engineering AG	CS	*Introductory*
TS-4674	Java™ in the Brazilian Digital TV: Interactivity and Digital Inclusion on TV	Magno Cavalcante, Petrobras • Clayton Chagas, Brazilian Army Research Center	MB • CT:EM • CS	*Introductory*
TS-3989	JSR 290: Empower Web User Interfaces for Mobile Java™ Technology	Jean-Yves Bitterlich, Sun Microsystems, Inc. Petr Panteleyev, Sun Microsystems, Inc.	SV:WB	*Advanced*
TS-4506	Migrating Your Java™ Platform, Micro Edition Midlets to JavaFX™ Mobile Technology	Hinkmond Wong, Sun Microsystems, Inc.	CS	*Introductory*
TS-4466	Move Your Users: Animation Principles for Great User Experiences	Romain Guy, Google, Inc. • Chet Haase, Adobe	CT:SE	*Advanced*
TS-4861	Pro JavaFX™ Platform: RIA Enterprise Application Development with JavaFX Technology	Stephen Chin, Inovis • Jim Weaver, Veriana	CS	*Introductory*
TS-5809	Producing High-Quality Video for JavaFX™ Applications	Jim Bankoski, On2 Technologies		*Introductory*
TS-4575	Project Darkstar: A Scalable Application Server for Networked Games, Virtual Worlds, and MMOGs	Owen Kellett, Sun Microsystems, Inc.	CS	*Introductory*
TS-5098	RIA Teacher Gradebook Managing Millions of Students with Swing and Web Services: How It Was Done	Deane Richan, Pearson	CT:SE • CS	*Introductory*
TS-5033	Scripting Java™ Technology with JRuby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	SV:WB • CT:SE • TL	*Advanced*
TS-5578	The New World: JavaFX™ Technology-Based UI Controls	Amy Fowler, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	CT:SE	*Advanced*
TS-5226	Using the New Capabilities of the Optimized JavaFX™ Mobile Platform	Pavel Petroshenko, Sun Microsystems, Inc.	MB	*Introductory*
TS-4086	Visual JavaFX™ Technology-Based Design with JFXBuilder	Josh Doenias, ReportMill Software • Jeff Martin, ReportMill Software, Inc.	CS	*Introductory*
TS-5015	Welcome to Ruby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	SV:WB • CT:SE • TL	*Introductory*

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
PANEL SESSIONS				
PAN-5210	Blu-ray and Java™ Technology Roundtable	Ivar Chan, Trailer Park • Bill Foote, Sun Microsystems, Inc. Joe Rice, MX Production Services	CS	*Introductory*
PAN-4502	JavaFX™ Technology and the Applications Ecosystem: JavaFX Technology Can Help You Make Money	Jacqueline Chang, Sun Microsystems, Inc.		*Introductory*
PAN-5388	Making Music with the Java™ Programming Language	Frank Greco, NYJavaSIG	CS	*Advanced*
BOF SESSIONS				
BOF-4464	2008: The Rise of Mobile Scripting	Roy Ben Hayun, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	CS • TL	*Introductory*
BOF-4982	Alice 3: Introducing Java™ Technology-Based Programming with 3-D Graphics	Dennis Cosgrove, Carnegie Mellon University • Wanda Dann, Carnegie Mellon University • Donald Slater, Carnegie Mellon University	CS	*Introductory*
BOF-5222	Creating Java™ Technology-Based Applications for Mac OS X: Is It Cocoa or Is It Java Technology?	Deane Richan, Xito	CT:SE	*Introductory*
BOF-5189	Griffon in Depth	Danno Ferrin, Intelligent Software Solutions, Inc. • James Williams, Code Herd	CT:SE • TL	*Advanced*
BOF-5063	JavaFX™ Platform RIAs Joined to GlassFish™ App Server Java™ Platform, Enterprise Edition 5 Services	Ludovic Champenois, Sun Microsystems, Inc.	SV:WB • CT:EE • CS	*Introductory*
BOF-4548	JavaFX™ Technology for TV: That Other Screen in Your Life	Ronan McBrien, Sun Microsystems, Inc.	CS	*Introductory*
BOF-4844	Java™ and JavaFX™ Technology and the Nintendo Wiimote: Just How Much Fun Can You Have?	Angela Caicedo, Sun Microsystems, Inc. • Simon Ritter, Sun Microsystems, Inc.	CT:SE • CS	*Advanced*
BOF-4905	JFreeChart: Surviving and Thriving	David Gilbert, Object Refinery Limited	CT:SE • CS	*Introductory*
BOF-4707	JideFX: Bringing Desktop Richness to the Internet	David Qiao, JIDE Software, Inc.	CT:SE	*Advanced*
BOF-5150	Make Your Users Happy: Creating JavaFX™ Environment User Experiences That Work	Jindrich Dinga, Sun Microsystems, Inc. • Jeff Hoffman, Sun Microsystems, Inc.	CT:SE	*Introductory*
BOF-6343	Meet the Developers of the JavaFX™ Media API	Brian Burkhalter, Sun Microsystems, Inc. • Boman Irani, Sun Microsystems, Inc. Tony Wyant, Sun Microsystems, Inc.		*Introductory*
BOF-5152	Meet the Java™ and JavaFX™ User Experience Team	Jeff Hoffman, Sun Microsystems, Inc. • Karen Stanley, Sun Microsystems, Inc.	CT:SE	*Introductory*
BOF-4849	Mobile Motion and Noise Detector Application with Network Support	Péter Ekler, Budapest University of Tech.	CS	*Introductory*
BOF-4787	Piccolo2D Open-Source Community Forum: The Future of Zooming User Interfaces	Stephen Chin, Inovis	CT:SE • CS	*Advanced*
BOF-5131	Project Wonderland: Build 3-D Virtual Worlds with Java™ Technology	Paul Byrne, Sun Microsystems, Inc. • Jonathan Kaplan, Sun Microsystems, Inc.	CS	*Introductory*
BOF-5493	Quo Vadis JavaFX™ Production Suite	Pavel Benes, Sun Microsystems, Inc. • Martin Brehovsky, Sun Microsystems, Inc.		*Advanced*
BOF-5049	Scaling the Asynchronous Web	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	SV:WB • CT:EE • CS	*Introductory*
BOF-4805	Spice Up Your JavaFX™ Mobile Applications with Rich Multimedia	Michael Heinrichs, Sun Microsystems, Inc. • Petr Vasenda, Sun Microsystems, Inc.	CS	*Introductory*
BOF-4344	Test Tools BOF	Frank Cohen, PushToTest	SV:WB • TL	*Advanced*
BOF-4027	The SAT Framework: Unleashing the Power of Selenium, ANT, and TestNG	Aditya Dada, Sun Microsystems, Inc.	CT:EE • TL	*Advanced*
BOF-5221	Writing Rich Applications for IPTV	Steven Doyle, Sun Microsystems, Inc.	CS • TL	*Introductory*

** Content subject to change.*

MOBILITY

Real-time Session Information and Updates

Today, "mobility" means more than just laptops. We're talking about a wide range of connected computing environments exchanging data, content, and services and providing a personalized, relevant experience to users. About 3 billion Java™ technology-enabled handsets are currently connected to mobile networks worldwide, leveraging the richness and power of Java technology for the development and deployment of mobile data services.

Java Platform, Micro Edition has been designed to meet the needs of connected mobile environments, providing access to the functionality of consumer devices while ensuring application portability and empowering developers with the latest tools. In combination with JavaFX™ technology, it delivers a powerful, intuitive experience to demanding users of Internet-connected services. Session attendees have an excellent opportunity to learn about key Java ME technologies and advanced techniques for developing, testing, optimizing, and deploying mobile Java content — demonstrated through real-world examples from experienced developers.

Topics include:

> **Core Java ME technologies:** Java Virtual Machine, language, and platform APIs
- Mobile Information Device Profile (MIDP) 3
- Mobile Services Architecture (MSA)
- Java ME JSRs

> **Java in wireless devices:** Deployment and management of mobile data services
- Enterprise mobile Java applications
- SIM card services
- Mobile Internet devices (MIDs) and ultralightweight wireless platforms

> **Development Tools and Languages:** Application development tools, including integrated development environments and emulators
- Testing and certification tools
- Delivery of applications across a wide range of devices, networks, and/or mobile operators

> **Cool Stuff:** Innovative applications for mobile handsets; compelling mobile applications for consumers

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4529	A Closer Look at the Java™ Platform, Micro Edition (Java ME Platform) SDK 3.0	Tomas Brandalik, Sun Microsystems, Inc. • Richard Gregor, Sun Microsystems, Inc. Erik Hellman, Sony Ericsson		*Introductory*
TS-4533	Augmented Reality with Java™ Platform, Micro Edition (Java ME Platform) Devices	Kenneth Andersson, Sony Ericsson • Erik Hellman, Sony Ericsson	CS	*Advanced*
TS-4408	Developing JavaServer™ Faces Applications for Mobile Device Browsers	Joe Huang, Oracle Corporation • Matthias Wessendorf, Oracle Corporation	SV:WB • CS	*Introductory*
TS-4789	Developing Visually Stunning 3-D User Experiences with Java™ Technology and M3G on Mobile	Peter Horsman, ARM Ltd.	RM • CS	*Introductory*
TS-6263	Device Fitness Testing	Yael Wagner, Sun Microsystems, Inc.		*Introductory*
TS-4801	Does Your Mobile Speak the JavaFX™ Programming Language?	Jan Sterba, Sun Microsystems, Inc. • Juraj Svec, Sun Microsystems, Inc.		*Introductory*
TS-4010	Duke's Dancing Partner: Connecting Handheld Game Consoles with Java&trade Technology	Chuk-Munn Lee, Sun Microsystems, Inc. • Max Mu, Sun Microsystems, Inc.	CT:EM • CS	*Advanced*
TS-4144	Dynamic Voice Recognition Grammar Using JSAPI2: Recognizing What You Don't Program	Eric Smith, Burning Sun Enterprises	RM • CT:SE	*Advanced*
TS-5038	Exploring Spontaneous Communication in a Seamless World	Vando Batista, C.E.S.A.R	CS	*Advanced*
TS-4945	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Brad Miller, WPI	CT:EM • CS	*Introductory*
TS-4125	Introducing Mobile Java™ Technology-Based Widget Development	Yoav Barel, Sun Microsystems, Inc. • Ariel Levin, Sun Microsystems, Inc.		*Introductory*

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4069	JavaFX™ Technology in Action: From Design Tool to Desktop, to Mobile Device	Mike Mannion, Canoo Engineering AG	RM • CS	*Introductory*
TS-4674	Java™ in the Brazilian Digital TV: Interactivity and Digital Inclusion on TV	Magno Cavalcante, Petrobras • Clayton Chagas, Brazilian Army Research Center	RM • CT:EM • CS	*Introductory*
TS-4136	Java™ Platform, Micro Edition (Java ME Platform) Myth Busters	Marlon Luz, Nokia Institute of Technology • Bruno Oliveira, Santander		*Introductory*
TS-3989	JSR 290: Empower Web User Interfaces for Mobile Java™ Technology	Jean-Yves Bitterlich, Sun Microsystems, Inc. Petr Panteleyev, Sun Microsystems, Inc.	RM • SV:WB	*Advanced*
TS-4943	LincVolt Car: Driving Toward 100 Miles per Gallon	Paul Perrone, Perrone Robotics, Inc.	CT:EM • CS	*Introductory*
TS-6816	MIDP 3.0 In Depth: Tutorials and Demonstrations	Lakshmi Dontamsetti, Aplix Corporation USA • Stan Kao, Aplix Corporation USA Roger Riggs, Sun Microsystems, Inc.		*Advanced*
TS-4506	Migrating Your Java™ Platform, Micro Edition Midlets to JavaFX™ Mobile Technology	Hinkmond Wong, Sun Microsystems, Inc.	RM • CS	*Introductory*
TS-4555	Mobile Service Architecture 2: Introducing New Features in Mobile Devices	Kay Glahn, Vodafone • Erkki Rysa, Nokia		*Advanced*
TS-6591	Mobility and Device General Session			*Introductory*
TS-6765	MobiTV: Creating Effective Mobile Content Now and in the Future	Do Hyun Chung, MobiTV		*Introductory*
TS-5314	Optimizing Java™ Platform, Micro Edition for Blu-ray Players and Interactive DTVs/STBs	Hobum Kwon, Samsung Electronics	CT:EM	*Advanced*
TS-4861	Pro JavaFX™ Platform: RIA Enterprise Application Development with JavaFX Technology	Stephen Chin, Inovis • Jim Weaver, Veriana	RM • CS	*Introductory*
TS-4978	Project playSIM: Experimenting with Java Card™ 3 System Programming	Eric Arseneau, Sun Microsystems, Inc. • Fritjof Engelhardtsen, Telenor	CT:EM • CS	*Advanced*
TS-4528	RESTful Access to Java™ Platform, Micro Edition (Java ME Platform) Service APIs	Erik Hellman, Sony Ericsson	SV:WB	*Advanced*
TS-7072	Rich User Interfaces for Java™ Platform, Micro Edition (Java ME Platform) Devices	Enrique Garcia, Sony Ericsson • Alexander Klintström, Sony Ericsson		*Introductory*
TS-5201	Save the Planet! Go Green by Using Java™ Technology in Unexpected Places	Joe Polastre, Sentilla	CS	*Introductory*
TS-6592	Sprint Titan (JSR 232 OSGi): Bringing Mobile into the Mainstream	Jay Indurkar, Sprint Nextel		*Advanced*
TS-4877	Sun GlassFish™ Mobility Platform	Hans Hrasna, Sun Microsystems, Inc. Santiago Pericas-Geertsen, Sun Microsystems, Inc.	CS	*Introductory*
TS-4868	Sun SPOTs: A Great Solution for Small Device Development	Claudio Horvilleur, Cromasoft	CT:EM • CS	*Introductory*
TS-3895	Swing Filthy-Rich Clients on Mobile Devices with Lightweight User Interface Toolkit (LWUIT)	Shai Almog, vPrise LLC • Chen Fishbein, Sun Microsystems, Inc.		*Advanced*
TS-5282	The Java™ 2 Platform, Micro Edition Mobile Information Device Profile 3.0 (MIDP 3.0)	Angus Huang, Aplix Corporation USA • Paul Su, Aplix Corporation USA		*Advanced*
TS-5488	The Mobile Evolution: From Java™ Platform, Micro Edition to JavaFX™ Mobile Applications	Adam Sotona, Sun Microsystems, Inc. • Petr Suchomel, Sun Microsystems, Inc.	CS	*Advanced*
TS-5117	Touch Our Application! Building a Rich Touch-Enabled SVG UI for Java™ Platform, Micro Edition	Karol Harezlak, Sun Microsystems, Inc.	CS	*Advanced*
TS-5226	Using the New Capabilities of the Optimized JavaFX™ Mobile Platform	Pavel Petroshenko, Sun Microsystems, Inc.	RM	*Introductory*

** Content subject to change.*

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
PANEL SESSIONS				
PAN-5336	MSA 2: How Do We Work Toward a Consistent Java™ Platform?	Calinel Pasteanu, Sun Microsystems, Inc.		*Advanced*
PAN-4670	Why the Java™ Platform Matters in Higher Education	Gerard Briscoe, London School of Economics • Barry Burd, Drew University Rommel Feria, University of the Philippines • Bob Jacobsen, University of California - Berkeley • James Robertson, Univ of MD University College	CT:SE • CS	*Introductory*
BOF SESSIONS				
BOF-4464	2008: The Rise of Mobile Scripting	Roy Ben Hayun, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	RM • CS • TL	*Introductory*
BOF-4424	Advanced Debugging and Profiling on Java™ Technology-Enabled Devices	Iddo Arie, Sun Microsystems, Inc. • Roy Ben Hayun, Sun Microsystems, Inc.	TL	*Advanced*
BOF-4953	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Derek White, Sun Microsystems, Inc.	CT:EM • CS	*Introductory*
BOF-5108	Fun with Java™ Technology on Lego Mindstorms	Roger Glassey, Berkeley University • Andy Shaw, Sun Microsystems, Inc.	CT:EM • CS	*Introductory*
BOF-4882	Java™ Technology and the Symbian Foundation: What's the Story?			*Introductory*
BOF-4112	JSR 325: A New (Standardized) Way of Communication	Martin Johansson, Ericsson AB • Niclas Palm, Ericsson AB		*Introductory*
BOF-4551	Lightweight User Interface Toolkit (LWUIT): Meet the Developers	Shai Almog, vPrise LLC • Chen Fishbein, Sun Microsystems, Inc.		*Advanced*
BOF-4535	Maximizing Your FPS in Java™ Platform, Micro Edition Technology-Based Applications	Viktor Martensson, Sony Ericsson		*Advanced*
BOF-6731	Mobile and Embedded Lightning Talks	Terrence Barr, Sun Microsystems, Inc. • Roger Brinkley, Sun Microsystems, Inc.		*Introductory*
BOF-4849	Mobile Motion and Noise Detector Application with Network Support	Péter Ekler, Budapest University of Tech.	RM • CS	*Introductory*
BOF-4702	Mobile Phone in Continuous Glucose Monitoring	Irvin Ye, Sun Microsystems, Inc.	CS	*Introductory*
BOF-4561	NFC (Near Field Communication) and Contactless Communication API (JSR 257) for Mobile Phones	Alexey Chekmarev, Sun Microsystems, Inc. • Boris Ulasevich, Sun Microsystems, Inc.		*Introductory*
BOF-3990	Signing Java™ Platform, Micro Edition Applications and the Renewed Java Verified Program	Risto Helin, Nokia		*Introductory*
BOF-6265	Smart Phone Behavior on a Feature Phone Budget, Using Java™ Platform, Micro Edition	Gail Rahn Frederick, Medio Systems		*Introductory*
BOF-4805	Spice Up Your JavaFX™ Mobile Applications with Rich Multimedia	Michael Heinrichs, Sun Microsystems, Inc. • Petr Vasenda, Sun Microsystems, Inc.	RM • CS	*Introductory*
BOF-4470	Spring ME: Unleashing Spring to the Rest of the Platform	Wilfred Springer, TomTom	CT:SE • CT:EM • CS	*Introductory*
BOF-5369	Swarm of Brian	Bruce Boyes, Systronix Inc. • Brian Jenkins, Sun Microsystems, Inc.	CT:EM • CS	*Introductory*

** Content subject to change.*

SERVICES

Real-time Session Information and Updates

To serve the functionality and content required by today's rich variety of access methods and devices, services are being developed and deployed facilitating easier access and utilization of enterprise data, consumer content and end-user information. Service-oriented principles continue to enable connections between and within enterprises. Connecting and exposing enterprise data as services enables the rapid use of this information to enhance business intelligence, deliver innovative solutions, and create competitive advantage. Developers are also increasingly looking to apply their knowledge and expertise in Web 2.0 technologies and approaches to facilitate integration as well as deliver desktop-like experience over the web. The advent of cloud computing also offers core services such as identity, profile, social graph, etc., thereby making application creation and deployment significantly easier and faster. In addition, cloud computing eliminates the need for companies to host and manage their applications on their own IT resources. This movement toward infrastructure services means that enterprises and developers no longer have to worry about configuring and managing IT. This topic area will address how the developer community can utilize SOA, Web-Oriented Architecture, Enterprise Integration, Open Services, and cloud platforms to more simply, rapidly, and economically build and deploy enterprise and consumer applications.

This track is comprised of two main topic areas:

> **SOA Platform and Middleware Services:** Best practices and case studies in governance, composite applications, policy enforcement, interoperability, global collaboration, enterprise integration, and more
  - Event-driven architecture and complex-event processing
  - Single-customer-view applications using master data management
  - New approaches such as ESB, SCA, and Java business integration (JBI)
  - Identity and security solutions

> **Web 2.0, Next-generation Web, and Cloud Services Platforms:** New techniques for using the Web and network technologies; leveraging network effects to create unique value, including participatory Web sites, tagging, annotation, sharing, blogs, and wikis as means of mass communications; taking advantage of cloud computing
  - Best practices in delivering desktop-quality user experiences from Web applications; the effective use of AJAX
  - The use of REST and Web 2.0 techniques to solve e-collaboration problems
  - Creation of blended applications using Web 2.0 technologies
  - Best practices for employing scripting and lightweight or Web-based tools
  - Software as a service; platform as a service
  - Design and deployment of services in the cloud, including best practices for deploying and testing services

> **Design and development tools:** Languages, implementation of e-business functions, creation of applications using Web 2.0 techniques, and techniques to support scalability and availability

> **Cool Stuff:** New approaches such as ESB, SCA, and JBI; innovation in next-generation Web services and cloud platforms; application of technologies to craft new services, solutions, or applications

SOA PLATFORM AND MIDDLEWARE SERVICES

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-4544	An Introduction to Complex Event Processing on the Java™ Platform	Andy Piper, Oracle Corporation • Robin Smith, Oracle Corporation	SV:WB	*Introductory*
TS-4475	Applying Complex Event Processing (CEP) with a Stateful Rules Engine for Real-Time Intelligence	Adam Mollenkopf, FedEx Custom Critical • Mark Proctor, Red Hat	CS	*Introductory*
TS-4846	Building Asynchronous Services with Service Component Architecture	Mike Edwards, IBM		*Advanced*
TS-4883	Coding REST and SOAP Together	Martin Grebac, Sun Microsystems, Inc. • Jakub Podlesak, Sun Microsystems, Inc.		*Advanced*
TS-4783	Design Patterns for Complex Event Processing	Alexandre Alves, Oracle Corporation • Shailendra Mishra, Oracle Corporation		*Introductory*

RM > RICH MEDIA APPLICATIONS AND INTERACTIVE | MB > MOBILITY | SV:SOA > SERVICES: SOA Platform and Middleware Services | SV:WB > SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms
CT:SE > CORE TECHNOLOGIES: Java SE and Java Technology for the Desktop | CT:EE > CORE TECHNOLOGIES: Java EE Technology | CT:EM > CORE TECHNOLOGIES: Embedded/Real-time/Java Card Technologies | TL > ALL TOPICS: Tools and Languages | CS > ALL TOPICS: Cool Stuff

SOA PLATFORM AND MIDDLEWARE SERVICES

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4389	Enhancing the Role of a Federal Agency as a Service Broker via a Service Registry: A Case Study	Walt Melo, MDS		*Advanced*
TS-4839	Enterprise Integration Patterns In Practice	Keith Babo, Sun Microsystems, Inc. • Bruce Snyder, SpringSource, Inc.		*Introductory*
TS-4856	GlassFish™ESB: Get Your Apps on the Bus	Keith Babo, Sun Microsystems, Inc. • Frank Kieviet, Sun Microsystems, Inc.		*Introductory*
TS-5025	Java™ Platform, Enterprise Edition 5 in a National Electronic Health Record System Implementation	Srdjan Stakic, Advanced Systems Guild LLC		*Advanced*
TS-4733	Java™ Platform, Enterprise Edition Technology-Based Connector Architecture 1.6	Binod Pg, Sun Microsystems, Inc. • Sivakumar Thyagarajan, Sun Microsystems, Inc.	CT:EE	*Advanced*
TS-6766	Real-World Processes with WS-BPEL	Murali Pottlapelli, Sun Microsystems, Inc. • Ron Ten-Hove, Sun Microsystems, Inc.		*Introductory*
TS-5173	Resource-Oriented Architecture (ROA) and REST	Scott Davis, Davisworld Consulting, Inc.	CS	*Introductory*
TS-4775	RESTful Transaction Systems	Mark Little, JBoss Inc. • Michael Musgrove, Red Hat		*Advanced*
TS-5341	Rethinking the ESB: Lessons Learned from Challenging the Limitations and Pitfalls	Keith Babo, Sun Microsystems, Inc. • Andreas Egloff, Sun Microsystems, Inc.		*Introductory*
TS-4213	Securing Web and Service-Oriented Architectures with Apache Axis, WSS4J, Spring, and OpenLDAP	Shawn McKinney, Fidelity National Info Svcs		*Advanced*
TS-5123	SOA at Enterprise Scale: Solving Real Challenges with GlassFish ESB	Istvan Molnar, SmartX Ltd. • Geza Simon, SmartX Ltd		*Advanced*
TS-4476	SOA Deployment Challenges in the Real World	Sastry Malladi, eBay		*Advanced*
TS-5036	Using REST and WS-* in the Cloud	Doug Tidwell, IBM	SV:WB • CT:SE • CS	*Introductory*
TS-3966	Using REST and WS-* Together for SOA	Mark Little, JBoss Inc.		*Advanced*
TS-5154	XTP: Patterns for Scaling SOA, WOA, and REST Predictably with a Java™ Technology-Based Data Grid	David Chappell, Oracle Corporation	CS	*Advanced*
PANEL SESSION				
PAN-5366	Cloud Computing: Show Me the Money	Jeff Barr, Amazon.com • Jeff Collins, Intuit • Adam Gross, salesforce.com, Inc. Simon Guest, Microsoft • Gregor Hohpe, Google, Inc. • Raghavan Srinivas, Intuit Lew Tucker, Sun Microsystems, Inc.	SV:WB • CS • TL	*Introductory*
BOF SESSIONS				
BOF-5376	Building Consistent RESTful APIs in a High-Performance Environment	Yegor Borovikov, LinkedIn Corporation • Brandon Duncan, LinkedIn Corporation	SV:WB • CS	*Advanced*
BOF-4958	Data Integration with Smooks: Split, Transform, and Analyze Your Data in an ESB World	Tom Fennelly, JBoss / Red Hat	CS	*Introductory*
BOF-5346	Extreme and Complex Event Processing on the Java™ Platform, Using Equinox OSGi	Balamurali Kothandaraman, BEA Systems, Inc. • Takyiu Liu, BEA Systems, Inc.	CT:EM • CS	*Introductory*
BOF-5048	How to Use the Enterprise Service Bus Without Its Using You	David Wroton, Oppenheimer Funds	TL	*Advanced*
BOF-4413	Integration of Web Services Stack in an Enterprise Service Bus	Wen Zhu, Model Driven Solutions		*Advanced*
BOF-5159	Kick-Start Your SOA with Open-Source Tools	Aaron Mulder, Chariot Solutions		*Introductory*

SOA PLATFORM AND MIDDLEWARE SERVICES

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-4738	Medical Instrument Systems Middleware with SOA, OpenESB, and GlassFish™ V2 Application Server	Haridas Puthiyapurayil, Abbott Laboratories	CS	*Introductory*
BOF-5004	OSGi and the Enterprise Service Bus: Friend or Foe?	Keith Babo, Sun Microsystems, Inc. • Kevin Conner, JBoss • Mark Little, RedHat Guillaume Nodet, Progress Software		*Advanced*
BOF-5273	SOA Error and Fault Management	Bhaven Avalani, eBay		*Advanced*
BOF-5261	Web Services in Practice	Jitendra Kotamraju, Sun Microsystems, Inc. Rama Pulavarthi, Sun Microsystems, Inc.	CT:EE	*Advanced*
BOF-6730	What Is and Will Be New in OpenESB?	Sujit Biswas, Sun Microsystems, Inc. • Norbert Piega, Sun Microsystems, Inc. Sherry Weng, Sun Microsystems, Inc.		*Introductory*

WEB 2.0, NEXT-GENERATION WEB, AND CLOUD SERVICES PLATFORMS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-3896	Accessing RESTful Web Services from the JavaFX™ Script Platform	Akhil Arora, Sun Microsystems, Inc. • Kinsley Wong, Sun Microsystems, Inc.	RM	*Introductory*
TS-5400	AJAX Performance Tuning and Best Practice	Doris Chen, Sun Microsystems, Inc. • Greg Murray, Netflix		*Advanced*
TS-5587	AJAX Versus JavaFX™ Technology	Dion Almaer, Ajaxian, Inc. • Ben Galbraith, Mozilla		*Introductory*
TS-4645	AJAXifying Existing Web Applications	Anas Mughal, Bluenog		*Advanced*
TS-4544	An Introduction to Complex Event Processing on the Java™ Platform	Andy Piper, Oracle Corporation • Robin Smith, Oracle Corporation	SV:SOA	*Introductory*
TS-4308	Architecting Robust Applications for Amazon EC2	Chris Richardson, Chris Richardson Consulting		*Introductory*
TS-4351	Building Facebook and OpenSocial Applications with Java™ Technology	Richard Pack, Hyperic, Inc.	CT:EE • CS	*Introductory*
TS-5307	Building Next-Generation Web Applications with the Spring 3.0 Web Stack	Keith Donald, SpringSource • Jeremy Grelle, SpringSource		*Introductory*
TS-4514	Building Rich Internet Applications with the JavaFX™ Programming Language	Max Katz, Exadel	RM	*Introductory*
TS-5213	Cleaning Up with AJAX: Building Great Apps That Users Will Love	Clint Oram, SugarCRM	CS	*Advanced*
TS-5588	Creating Compelling User Experiences	Dion Almaer, Ajaxian, Inc. • Ben Galbraith, Mozilla	CT:SE	*Introductory*
TS-5468	Cross-Browser Vector Graphics with the Canvas Tag and SVG	Ignacio Blanco, Google, Inc. • Patrick Chanezon, Google, Inc.	CS	*Advanced*
TS-5295	Designing and Building Security into REST Applications	Sean Brydon, Sun Microsystems, Inc. Aravindan Ranganathan, Sun Microsystems, Inc.	CT:EE	*Advanced*
TS-4408	Developing JavaServer™ Faces Applications for Mobile Device Browsers	Joe Huang, Oracle Corporation • Matthias Wessendorf, Oracle Corporation	CS	*Introductory*
TS-4875	Developing RESTful Web Services with the Java™ API for RESTful Web Services (JAX-RS)	Marc Hadley, Sun Microsystems, Inc. • Paul Sandoz, Sun Microsystems, Inc.	CT:EE	*Introductory*

** Content subject to change.*

WEB 2.0, NEXT-GENERATION WEB, AND CLOUD SERVICES PLATFORMS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-5034	Developing Smart Java™ Code with Semantic Web Technology	Holger Knublauch, TopQuadrant, Inc.	RM • CT:SE • CS	*Introductory*
TS-5410	Drizzle: A New Database for the Cloud	Monty Taylor, Sun Microsystems, Inc.	CS	*Introductory*
TS-4921	Dynamic Languages Powered by GlassFish™ Application Server v3	Jacob Kessler, Sun Microsystems, Inc. • Vivek Pandey, Sun Microsystems, Inc.	CT:EE • CS • TL	*Introductory*
TS-4230	Enterprise Build and Test in the Cloud	Carlos Sanchez, Exist	TL	*Introductory*
TS-5047	Enterprise Solutions for Java™ and JavaScript™ Technology Integration with Advanced Modeling/Tooling	Justin Early, eBay • Yitao Yao, eBay	TL	*Advanced*
TS-5354	Exploiting Concurrency with Dynamic Languages	Tobias Ivarsson, Neo Technology	CT:SE • TL	*Introductory*
TS-5330	Extreme Google Web Toolkit: Exploring Advanced Aspects of GWT	David Geary, Clarity Training, Inc.		*Advanced*
TS-5198	Full-Text Search: Human Heaven and Database Savior in the Cloud	Emmanuel Bernard, JBoss, a Division of Red Hat • Aaron Walker, base2Services	CT:EE • CS	*Advanced*
TS-3802	Functional and Object-Oriented Programming in the JavaScript™ Programming Language	Roberto Chinnici, Sun Microsystems, Inc.	TL	*Introductory*
TS-6802	Hadoop, a Highly Scalable, Distributed File/Data Processing System Implemented in Java™ Technology	Sanjay Radia, Yahoo	CS	*Introductory*
TS-4238	HtmlUnit: An Efficient Approach to Testing Web Applications	Ahmed Ashour, Zain KSA • Daniel Gredler, DHL Global Mail	TL	*Introductory*
TS-3790	Java™ Servlet 3.0: Empowering Your Web Applications With Async, Extensibility and More	Jan Luehe, Sun Microsystems, Inc. • Rajiv Mordani, Sun Microsystems, Inc.	CT:EE	*Advanced*
TS-4696	JDBC? We Don't Need No Stinkin' JDBC: How LinkedIn Scaled with memcached, SOA, and a Bit of SQL	David Raccah, LinkedIn Corporation • Dhananjay Ragade, LinkedIn Corporation	CT:EE	*Introductory*
TS-5413	JRuby on Rails in Production: Lessons Learned from Operating a Live, Real-World Site	Nick Sieger, Sun Microsystems, Inc.	TL	*Advanced*
TS-3989	JSR 290: Empower Web User Interfaces for Mobile Java™ Technology	Jean-Yves Bitterlich, Sun Microsystems, Inc. Petr Panteleyev, Sun Microsystems, Inc.	RM	*Advanced*
TS-5082	Matchmaking in the Cloud: Hadoop and EC2 at eHarmony	Per Jacobsson, eHarmony • Steve Kuo, eHarmony	CS	*Introductory*
TS-5136	Nereus-V: Massively Parallel Computing of, by, and for the Community	Rhys Newman, Oxford University • Ian Preston, Oxford University	CT:SE • CS	*Introductory*
TS-4012	Pragmatic Identity 2.0: Simple, Open, Identity Services Using REST	Pat Patterson, Sun Microsystems, Inc. • Ron Ten-Hove, Sun Microsystems, Inc.	CS	*Introductory*
TS-4528	RESTful Access to Java™ Platform, Micro Edition (Java ME Platform) Service APIs	Erik Hellman, Sony Ericsson		*Advanced*
TS-5033	Scripting Java™ Technology with JRuby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • CT:SE • TL	*Advanced*
TS-4599	Taking a SIP of Java™ Technology: Building Voice Mashups with SIP Servlets	RJ Auburn, Voxeo Corporation	CT:EE • CS	*Introductory*
TS-4005	The Web on OSGi: Here's How	Don Brown, Atlassian	CT:EE	*Advanced*
TS-4629	Tips and Tricks for AJAX Push and Comet Applications	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	CS	*Introductory*
TS-4617	Using Java™ Technology in the Windows Azure Cloud via the Metro Web Services Stack	Harold Carr, Sun Microsystems, Inc. • Clemens Vasters, Microsoft		*Advanced*

** Content subject to change.*

WEB 2.0, NEXT-GENERATION WEB, AND CLOUD SERVICES PLATFORMS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-5036	Using REST and WS-* in the Cloud	Doug Tidwell, IBM	SV:SOA • CT:SE • CS	*Introductory*
TS-4701	Web 2.0 Phone Home: Rapid Development of Telecom-Enabled Web Applications	Gregory Bond, AT&T Labs Research • Thomas Smith, AT&T Labs Research		*Introductory*
TS-5246	Web 2.0 Security Puzzlers: Genuine Security Vulnerabilities or False Positives?	Ray Lai, Intuit	CT:EE	*Introductory*
TS-5015	Welcome to Ruby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • CT:SE • TL	*Introductory*
TS-5205	Writing Killer JavaServer™ Faces 2.0 UI Components	Kito Mann, Virtua	CT:EE	*Introductory*
TS-4374	XSS-Proofing Your Java™ EE, JavaServer Pages™, and JavaServer™ Faces Applications	Jeff Williams, Aspect Security	CT:EE	*Introductory*
PANEL SESSION				
PAN-5366	Cloud Computing: Show Me the Money	Jeff Barr, Amazon.com • Jeff Collins, Intuit • Adam Gross, salesforce.com, Inc. Simon Guest, Microsoft • Gregor Hohpe, Google, Inc. • Raghavan Srinivas, Intuit Lew Tucker, Sun Microsystems, Inc.	SV:SOA • CS • TL	*Introductory*
BOF SESSIONS				
BOF-4903	A RESTful Approach to Identity-based Web Services	Marc Hadley, Sun Microsystems, Inc. • Hubert Le Van Gong, Sun Microsystems, Inc.	CS • TL	*Advanced*
BOF-5009	Atmosphere: Comet for Everyone, Everywhere	Jean-François Arcand, Sun Microsystems, Inc. • Paul Sandoz, Sun Microsystems, Inc.		*Introductory*
BOF-4163	Beginning JavaScript™ Programming Language for Java™ Technology Developers	Jason Lee, Sun Microsystems, Inc.		*Introductory*
BOF-5376	Building Consistent RESTful APIs in a High-Performance Environment	Yegor Borovikov, LinkedIn Corporation • Brandon Duncan, LinkedIn Corporation	SV:SOA • CS	*Advanced*
BOF-4638	Cloud Computing and NetBeans™ IDE Enable Army Research Lab's Next-Generation Simulation System	Ronald Bowers, Army Research Laboratory • Dennis Reedy, Elastic Grid LLC.	CS	*Introductory*
BOF-4878	Developing RESTful Web Services with Jersey and Java™ API for RESTful Web Services (JAX-RS)	Craig McClanahan, Sun Microsystems, Inc. • Jakub Podlesak, Sun Microsystems, Inc. Paul Sandoz, Sun Microsystems, Inc.	CT:EE • CS • TL	*Introductory*
BOF-3952	Enterprise Web 2.0 Architectures: From Pristine Java™ EE Platform to Fully Loaded Frameworks	Alberto Lemos, Globalcode • Vinicius Senger, Globalcode	CT:EE	*Introductory*
BOF-4537	GEMs in the Living Room	Amir Amit, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	CT:EM • CS	*Introductory*
BOF-5392	Grails Integration Strategies	Dave Klein, Contegix	CT:EE • CS	*Advanced*
BOF-4434	Hacking JRuby	Ola Bini, ThoughtWorks	CT:SE • TL	*Advanced*
BOF-5063	JavaFX™ Platform RIAs Joined to GlassFish™ App Server Java™ Platform, Enterprise Edition 5 Services	Ludovic Champenois, Sun Microsystems, Inc.	RM • CT:EE • CS	*Introductory*
BOF-4869	JavaServer™ Faces Platform and AJAX: State of the Union	Ted Goddard, ICEsoft Technologies • Roger Kitain, Sun Microsystems, Inc. Andy Schwartz, Oracle Corporation • Alexander Smirnov, Exadel, Inc.	CT:EE • CS	*Advanced*
BOF-5076	Java™ Platform, Enterprise Edition 5/6 Sun Certified Architect Exam: Theory, Practice, Real World	Humphrey Sheil, Comtec (Europe) Ltd	CT:EE	*Advanced*
BOF-5058	JRuby Experiences in the Real World	Logan Barnett, Happy Camper Studios • David Koontz, Happy Camper Studios	CT:SE • TL	*Advanced*
BOF-3820	Lift: The Best Way to Create Rich Internet Applications with Scala	David Pollak, Lift Web Framework	TL	*Introductory*

WEB 2.0, NEXT-GENERATION WEB, AND CLOUD SERVICES PLATFORMS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-5049	Scaling the Asynchronous Web	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	RM • CT:EE • CS	*Introductory*
BOF-4344	Test Tools BOF	Frank Cohen, PushToTest	RM • TL	*Advanced*
BOF-3979	The Groovy and Grails BOF: With Live Grails Podcast Recording!	Sven Haiges, Technical Engineer • Glen Smith, Bytecode Pty Ltd	CT:SE • CS	*Introductory*
BOF-5275	Using and Participating in the OpenSSO Project	Sean Brydon, Sun Microsystems, Inc. • Pat Patterson, Sun Microsystems, Inc. Aravindan Ranganathan, Sun Microsystems, Inc.	CT:EE	*Introductory*
BOF-4355	Using REST and Web Services to Mash Up Communications Capabilities	Elena Fersman, Ericsson AB • Peter Yeung, Ericsson AB		*Introductory*
BOF-4146	Writing a JavaServer™ Faces 2.0 Component That Uses AJAX: It's Easy! (Really, It's Easy.)	Jim Driscoll, Sun Microsystems, Inc. • Ryan Lubke, Sun Microsystems, Inc.		*Introductory*
BOF-4050	Your Code, Your Community . . . Your Cloud: Project Kenai	John Brock, Sun Microsystems, Inc. • Sharat Chander, Sun Microsystems, Inc.	TL	*Introductory*

CORE TECHNOLOGIES

Real-time Session Information and Updates

As a serious Java programmer, you express yourself any number of ways: by tuning the garbage collector for performance or predictability, developing new techniques to better manage concurrency, shrinking Java™ technology as far as possible to meet the needs of that new embedded device, and more. The Core Technology track topics range from the compelling capabilities presented by Java Card™ version 3, which puts a Web server on a credit card, to the awesome scale and ability of Java EE 6 technology with profiles, providing the backbone for today's Web 2.0 and SOA infrastructures. And, of course, we haven't left out the heart of Java technology — Java Platform, Standard Edition — which has just seen the arrival of the consumer-oriented Java SE 6 update 10 while on the road to Java SE 7 technology.

In this track you will find a broad spectrum of topics, such as:

> **Java SE and Java Technology for the Desktop:** Java SE 6 update 10 has recently revitalized Java technology on the desktop with faster startup and JRE installation times, a new Swing look and feel, and the ability to drag applets out of the browser. In addition, Java SE 7 technology is well under way and expected to bring enhancements in terms of modularity, broad and seamless language support, concurrency, garbage collection, performance, user interface, and graphics.

> **Java EE Technology:** With Java EE 6 and profiles, Java EE technology is becoming a compelling answer for Web infrastructure providers who need to provide high-transaction, 24x7 services and lightweight services that appear and disappear with the needs of the business. This track covers Web services, Java persistence, EJB™ technology, Web-tier frameworks, REST, security, and emerging Java EE platform APIs.

> **Embedded/Real-time/Java Card Technologies:** The use of Java technology in devices other than phones is growing rapidly. Real-time Java brings precision control over applications and elements of the Java VM, such as garbage collection. Java Card technology has been powering network interfaces for advanced and feature phones for years now, but the forthcoming version 3 combines a richer CLDC-based stack with Web server capabilities — all running on your bank card, SIM chip, or embedded device.

> **Tools and Languages:** Java technology has many great tools for general development, but different domains sometimes require specific or customized tools, or new extensions to standard tools. This track also covers languages beyond Java technology, including JavaScript™, Ruby, Python, and so on, which have created new models for development and new opportunities for integration with the Java VM.

> **Cool Stuff:** In this topic you'll learn about innovative and emerging uses of Java technology in interesting new domains.

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-5395	Actor-Based Concurrency in Scala	Philipp Haller, EPFL • Frank Sommers, Artima	TL	*Advanced*
TS-5385	Alternative Languages on the JVM™ Machine	Cliff Click, Azul Systems	TL	*Advanced*
TS-4723	Ardor3D: Improving on the Monkey	Joshua Slack, Ardor Labs	CS	*Introductory*
TS-4222	Asynchronous I/O Tricks and Tips	Jean-François Arcand, Sun Microsystems, Inc. Alan Bateman, Sun Microsystems, Inc.		*Advanced*
TS-5184	Bean Validation: Declare Once, Validate Anywhere — A Reality?	Emmanuel Bernard, JBoss, a Division of Red Hat	CT:EE	*Introductory*
TS-4182	Blink: Making the World More Accessible, One Blink at a Time	Telly Stroumbis, Boeing	CS	*Advanced*
TS-4706	Bringing JTable to the Extreme	David Qiao, JIDE Software, Inc.		*Advanced*
TS-5418	Building Commercial-Quality Eclipse Plug-Ins: By the Guys Who Wrote the Book	Eric Clayberg, Instantiations, Inc. • Dan Rubel, Instantiations, Inc.	CS • TL	*Introductory*
TS-4062	Building Enterprise Java™ Technology-Based Web Apps with Google Open-Source Technology	Dhanji Prasanna, Google, Inc.	CT:EE • TL	*Introductory*

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-3809	Bulletproof User Interfaces	Jared MacDonald, The MathWorks, Inc.		*Advanced*
TS-4164	Clojure: Dynamic Functional Programming for the JVM™ Machine	Rich Hickey, Clojure	CS • TL	*Introductory*
TS-4955	Comparing Groovy and JRuby	Neal Ford, ThoughtWorks Inc.	TL	*Introductory*
TS-5301	Continuous Integration in the Cloud with Hudson	Jesse Glick, Sun Microsystems, Inc. • Kohsuke Kawaguchi, Sun Microsystems, Inc.	TL	*Introductory*
TS-5588	Creating Compelling User Experiences	Dion Almaer, Ajaxian, Inc. • Ben Galbraith, Mozilla	SV:WB	*Introductory*
TS-5335	Defective Java™ Code: Mistakes That Matter	William Pugh, University of Maryland	TL	*Introductory*
TS-4381	Deploying Java™ Technology to The Masses: How Sun Deploys The JavaFX™ Runtime	Craig Newell, Sun Microsystems, Inc. • Thomas Ng, Sun Microsystems, Inc.	CS	*Advanced*
TS-4961	"Design Patterns" for Dynamic Languages on the JVM™ Machine	Neal Ford, ThoughtWorks Inc.	CS • TL	*Advanced*
TS-5162	Developing LimeWire: Swing for the Masses	Sam Berlin, Lime Wire, LLC • Michael Everett, Lime Wire, LLC	CS	*Advanced*
TS-5034	Developing Smart Java™ Code with Semantic Web Technology	Holger Knublauch, TopQuadrant, Inc.	RM • SV:WB • CS	*Introductory*
TS-4388	Distributing JavaFX™ Applications with Java™ Web Start Software/Maven Repository Manager	Yoav Landman, JFrog Ltd. • Frederic Simon, JFrog Ltd.	CS	*Advanced*
TS-4967	Don't Do This! How Not to Write Java™ Technology-Based Software	Dean Wampler, Object Mentor, Inc.		*Introductory*
TS-4847	DTrace and Java™ Technology: Taking Observability to the Next Dimension	Jonathan Haslam, Sun Microsystems, Inc. • Simon Ritter, Sun Microsystems, Inc.	CS	*Advanced*
TS-4144	Dynamic Voice Recognition Grammar Using JSAPI2: Recognizing What You Don't Program	Eric Smith, Burning Sun Enterprises	RM	*Advanced*
TS-5217	"Effective Java": Still Effective After All These Years	Joshua Bloch, Google, Inc.	TL	*Advanced*
TS-4170	Experiences with 2-D and 3-D Mathematical Plots on the Java™ Platform	David Clayworth		*Introductory*
TS-5354	Exploiting Concurrency with Dynamic Languages	Tobias Ivarsson, Neo Technology	SV:WB • TL	*Introductory*
TS-5575	Extreme GUI Makeover (Hybrid Swing and JavaFX™ Technology)	Amy Fowler, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	RM	*Introductory*
TS-4363	Extreme Swing Debugging: The Fast and the Furious	Alexander Potochkin, Sun Microsystems, Inc. • Maxim Zakharenkov, Exigen, Inc.	CS • TL	*Introductory*
TS-4143	Flamingo: Bringing the Ribbon Component to Swing	Kirill Grouchnikov, Amdocs		*Introductory*
TS-5134	Fusing 3-D Java™ Technologies to Create a Mirror World	Scott Bennett, SRA International, Inc. • Steve Vaughan, SRA International, Inc.	CS	*Advanced*
TS-4887	Garbage Collection Tuning in the Java HotSpot™ Virtual Machine	Charlie Hunt, Sun Microsystems, Inc. • Antonios Printezis, Sun Microsystems, Inc.		*Advanced*
TS-4247	Getting More Out of the Java™ VisualVM Tool	Geertjan Wielenga, Sun Microsystems, Inc.	TL	*Introductory*
TS-5052	Hacking the File System with JDK™ Release 7	Alan Bateman, Sun Microsystems, Inc. • Carl Quinn, Google, Inc.		*Advanced*
TS-5280	JavaFX™ Platform: Animations, Timelines, and Collision Analysis for Games	Peter Pilgrim, LLoyds TSB	RM • CS	*Introductory*
TS-3968	JavaFX™ Programming Language + Groovy = Beauty + Productivity	Dierk König, Canoo Engineering AG	RM • CS • TL	*Advanced*
TS-4142	JavaFX™ Technology + JSAPI2 = VoiceFX: Add Voice Recognition to Your JavaFX Applications	Eric Smith, Burning Sun Enterprises	RM • CS	*Introductory*
TS-5574	JavaFX™ Technology for Swing Developers	Richard Bair, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	RM	*Introductory*

** Content subject to change.*

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-4863	Java™ Platform Concurrency Gotchas	Alex Miller, Terracotta	TL	*Introductory*
TS-5427	Java™ Technoogy Inside-Out	John Coomes, Sun Microsystems, Inc. • Brian Goetz, Sun Microsystems, Inc. Antonios Printezis, Sun Microsystems, Inc.		*Introductory*
TS-5389	Less Is More: Redefining the "I" of the IDE	Mik Kersten, Tasktop Technologies	CS • TL	*Introductory*
TS-4954	Modularity in the Java™ Programming Language: JSR 294 and Beyond	Alex Buckley, Sun Microsystems, Inc.		*Introductory*
TS-4466	Move Your Users: Animation Principles for Great User Experiences	Romain Guy, Google, Inc. • Chet Haase, Adobe	RM	*Advanced*
TS-5136	Nereus-V: Massively Parallel Computing of, by, and for the Community	Rhys Newman, Oxford University • Ian Preston, Oxford University	SV:WB • CS	*Introductory*
TS-5579	Nimbus: Making Swing Look Sexy!	Jasper Potts, Sun Microsystems, Inc.		*Introductory*
TS-4166	Object-Oriented Ant Scripts for the Enterprise	Douglas Bullard, Nike, Inc.	TL	*Advanced*
TS-4118	Practical Lessons in Memory Analysis	Andrew Johnson, IBM United Kingdom Limited • Krum Tsvetkov, SAP AG	TL	*Introductory*
TS-3798	Preventing Bugs with Pluggable Type Checking	Michael Ernst, University of Washington	CS • TL	*Advanced*
TS-4333	Programming Music for Fun and Productivity: JFugue and Log4JFugue	David Koelle, Charles River Analytics Inc. • Brian Tarbox, Wabi Sabi Software	CS	*Introductory*
TS-5186	Return of the Puzzlers: Schlock and Awe	Joshua Bloch, Google, Inc. • Neal Gafter, Microsoft		*Advanced*
TS-5098	RIA Teacher Gradebook Managing Millions of Students with Swing and Web Services: How It Was Done	Deane Richan, Pearson	RM • CS	*Introductory*
TS-4620	Robust and Scalable Concurrent Programming: Lessons from the Trenches	Sangjin Lee, eBay Inc. • Mahesh Somani, eBay Inc.		*Advanced*
TS-5033	Scripting Java™ Technology with JRuby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • SV:WB • TL	*Advanced*
TS-4421	Simplifying Development and Testing of GUIs with the Swing Application Framework (JSR 296) and FEST	Michael Huettermann, Training & Consulting • Alex Ruiz, Oracle Corporation		*Advanced*
TS-4559	Simply Sweet Components	Ken Orr, The MathWorks		*Introductory*
TS-4060	Small Language Changes in JDK™ Release 7	Joseph Darcy, Sun Microsystems, Inc.		*Introductory*
TS-5254	SPEC Java™ Platform Benchmarks and Their Role in the Java Technology Ecosystem	David Dagastine, Sun Microsystems, Inc. • Anil Kumar, Intel Corporation		*Introductory*
TS-4641	State: You're Doing It Wrong — Alternative Concurrency Paradigms on the JVM&trade Machine	Jonas Bonér, Scalable Solutions	CS	*Introductory*
TS-3993	Swing for Real-Time Trading Systems	Victor Glava, Optionscity • Freddy Guime, Optionscity		*Introductory*
TS-5391	The Art of (Java™ Technology) Benchmarking	Cliff Click, Azul Systems		*Introductory*
TS-4487	The Feel of Scala	Bill Venners, Artima, Inc.	TL	*Introductory*
TS-5245	The Ghost in the Virtual Machine: A Reference to References	Bob Lee, Google, Inc.	CS	*Advanced*
TS-5362	The Java™ Platform, Standard Edition (Java SE Platform) Development Kit Version 7	Mark Reinhold, Sun Microsystems, Inc.		*Introductory*
TS-4454	The Magic of the JXLayer Component	Alexander Potochkin, Sun Microsystems, Inc.	CS	*Introductory*
TS-5359	The Modular Java™ Platform and Project Jigsaw	Mark Reinhold, Sun Microsystems, Inc.		*Advanced*
TS-5578	The New World: JavaFX™ Technology-Based UI Controls	Amy Fowler, Sun Microsystems, Inc. • Jasper Potts, Sun Microsystems, Inc.	RM	*Advanced*

** Content subject to change.*

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-5496	This Is Not Your Father's Von Neumann Machine; How Modern Architecture Impacts Your Java™ Apps	Cliff Click, Azul Systems • Brian Goetz, Sun Microsystems, Inc.		*Advanced*
TS-5216	Toward a Renaissance VM	Brian Goetz, Sun Microsystems, Inc. • John Rose, Sun Microsystems, Inc.	CS	*Advanced*
TS-5253	Under the Hood: Inside a High-Performance JVM™ Machine	Trent Gray-Donald, IBM	CS	*Advanced*
TS-4964	Unit Testing That Sucks Less: Small Things Make a Big Difference	Neal Ford, ThoughtWorks Inc.		*Introductory*
TS-4966	Upgrading OSGi	BJ Hargrave, IBM • Peter Kriens, aQute	CT:EE • CS	*Advanced*
TS-5036	Using REST and WS-* in the Cloud	Doug Tidwell, IBM	SV:SOA • SV:WB • CS	*Introductory*
TS-5015	Welcome to Ruby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • SV:WB • TL	*Introductory*
TS-4215	What's New in Groovy 1.6?	Guillaume Laforge, SpringSource	TL	*Advanced*
TS-4588	Where's My I/O: Some Insights into I/O Profiling and Debugging	Pavel Genevski, SAP AG	TL	*Advanced*
PANEL SESSIONS				
PAN-5348	Script Bowl 2009: A Scripting Languages Shootout	Roberto Chinnici, Sun Microsystems, Inc. • Thomas Enebo, Sun Microsystems, Inc. Rich Hickey, Clojure • Guillaume Laforge, SpringSource • Martin Odersky, EPFL Raghavan Srinivas, Intuit • Frank Wierzbicki, Sun Microsystems, Inc.	TL	*Introductory*
PAN-4670	Why the Java™ Platform Matters in Higher Education	Gerard Briscoe, London School of Economics • Barry Burd, Drew University Rommel Feria, University of the Philippines • Bob Jacobsen, University of California - Berkeley • James Robertson, Univ of MD University College	CS	*Introductory*
BOF SESSIONS				
BOF-4743	A Lightweight Approach to Port JDK™ Software GUI Library to Unsupported Mobile/ Desktop Devices	Andrei Dmitriev, Sun Microsystems, Inc. • Roman Kennke, aicas.com Mario Torre, aicas.com	CT:EM	*Advanced*
BOF-5087	All Things I/O with JDK™ Release 7	Alan Bateman, Sun Microsystems, Inc. • Chris Hegarty, Sun Microsystems, Inc.		*Advanced*
BOF-5222	Creating Java™ Technology-Based Applications for Mac OS X: Is It Cocoa or Is It Java Technology?	Deane Richan, Xito	RM	*Introductory*
BOF-4558	Creating Professional Rich Client Applications	Jan Stola, Sun Microsystems, Inc. • Jiri Vagner, Sun Microsystems, Inc.	TL	*Advanced*
BOF-4550	Developing/Testing Accessible Java™ Technology-Based Applications in the NetBeans™ IDE	Tomas Musil, Sun Microsystems, Inc. • Jaromir Uhrik, Sun Microsystems, Inc.	CS • TL	*Introductory*
BOF-4554	From Annotations to Unit Test Code Generation	Jacques Brawerman, Petrobras	CS • TL	*Introductory*
BOF-5189	Griffon in Depth	Danno Ferrin, Intelligent Software Solutions, Inc. • James Williams, Code Herd	RM • TL	*Advanced*
BOF-4611	Grizzly 2.0: Monster Reloaded!	Jean-François Arcand, Sun Microsystems, Inc. Oleksiy Stashok, Sun Microsystems, Inc.	CT:EE	*Advanced*
BOF-4434	Hacking JRuby	Ola Bini, ThoughtWorks	SV:WB • TL	*Advanced*
BOF-5394	Improving the Java User Groups (JUGs)	Dan Sline, JPMorgan		*Introductory*

** Content subject to change.*

RM > RICH MEDIA APPLICATIONS AND INTERACTIVE | **MB** > MOBILITY | **SV:SOA** > SERVICES: SOA Platform and Middleware Services | **SV:WB** > SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms

CT:SE > CORE TECHNOLOGIES: Java SE and Java Technology for the Desktop | **CT:EE** > CORE TECHNOLOGIES: Java EE Technology | **CT:EM** > CORE TECHNOLOGIES: Embedded/Real-time/Java Card Technologies | **TL** > ALL TOPICS: Tools and Languages | **CS** > ALL TOPICS: Cool Stuff

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-4595	Insights into Java™ Platform, Standard Edition, and JavaFX™ Platform Performance	Robert Strout, Sun Microsystems, Inc.		*Advanced*
BOF-4739	Integrating Java Card™ 3.0 Technology into the Desktop Environment	Sebastian Hans, Sun Microsystems, Inc.	CT:EM	*Advanced*
BOF-4768	Integrating PDF into Java™ Technology-Based Workflow Systems	Simon Barnett, Independent Consultant • Nichole Boundy, Consultant	CS	*Introductory*
BOF-4844	Java™ and JavaFX™ Technology and the Nintendo Wiimote: Just How Much Fun Can You Have?	Angela Caicedo, Sun Microsystems, Inc. • Simon Ritter, Sun Microsystems, Inc.	RM • CS	*Advanced*
BOF-5305	Java™ API for XML Web Services (JAX-WS) 2.2	Jitendra Kotamraju, Sun Microsystems, Inc. Rama Pulavarthi, Sun Microsystems, Inc.	CT:EE	*Advanced*
BOF-3904	Java™ Champions, Java User Group Leaders, and NetBeans Dream Team Discussion with Sun Software	Reginald Hutcherson and 3 or 4 JUG Community Leaders and Java Champions	CS	*Introductory*
BOF-4135	Java™ Programming Language Tools in JDK™ Release 7	Maurizio Cimadamore, Sun Microsystems, Inc. Jonathan Gibbons, Sun Microsystems, Inc.	TL	*Advanced*
BOF-4926	JDBC™ 4.1 Specification Community Discussion	Lance Andersen, Sun Microsystems, Inc. • Mark Matthews, Sun Microsystems, Inc.	CT:EE	*Introductory*
BOF-4905	JFreeChart: Surviving and Thriving	David Gilbert, Object Refinery Limited	RM • CS	*Introductory*
BOF-4707	JideFX: Bringing Desktop Richness to the Internet	David Qiao, JIDE Software, Inc.	RM	*Advanced*
BOF-5058	JRuby Experiences in the Real World	Logan Barnett, Happy Camper Studios • David Koontz, Happy Camper Studios	SV:WB • TL	*Advanced*
BOF-5236	JSR 292 Cookbook	John Rose, Sun Microsystems, Inc.	CS • TL	*Advanced*
BOF-4870	JSR 326: Diagnosing Deadly Java™ Platform Problems — Future of Java Technology Forensics	Steve Poole, IBM	TL	*Advanced*
BOF-5358	Language Interoperability on the JVM™ Machine Made Simple	Tobias Ivarsson, Neo Technology	CS • TL	*Advanced*
BOF-5150	Make Your Users Happy: Creating JavaFX™ Environment User Experiences That Work	Jindrich Dinga, Sun Microsystems, Inc. • Jeff Hoffman, Sun Microsystems, Inc.	RM	*Introductory*
BOF-5759	Meet the Java 2D™ API and Java™ Advanced Imaging API Teams	Jim Graham, Sun Microsystems, Inc. • Phil Race, Sun Microsystems, Inc.		*Introductory*
BOF-5232	Meet the Java HotSpot™ Virtual Machine Engineering Teams	Paul Hohensee, Sun Microsystems, Inc. • James Melvin, Sun Microsystems, Inc.		*Advanced*
BOF-5152	Meet the Java™ and JavaFX™ User Experience Team	Jeff Hoffman, Sun Microsystems, Inc. • Karen Stanley, Sun Microsystems, Inc.	RM	*Introductory*
BOF-4383	Meet the Java™ Deployment Team	Gustavo Galimberti, Sun Microsystems, Inc. • William Harnois, Sun Microsystems, Inc. • Craig Newell, Sun Microsystems, Inc.		*Introductory*
BOF-4418	Meet the Java™ Posse	Joe Nuxoll, The Java Posse • Carl Quinn, Google, Inc. • Dick Wall, Navigenics, Inc.	CS	*Introductory*
BOF-5757	Meet the Swing, AWT, and I18N Teams	Masayoshi Okutsu, Sun Microsystems, Inc. • Andrey Pikalev, Sun Microsystems, Inc.		*Introductory*
BOF-3992	Meet the Team Behind JWebPane, and Learn Advanced Tips and Tricks	Artem Ananiev, Sun Microsystems, Inc. • Alexey Ushakov, Sun Microsystems, Inc.		*Advanced*
BOF-4724	Monitoring and Troubleshooting Java™ Platform Applications with JDK™ Software	Mandy Chung, Sun Microsystems, Inc. • Tomas Hurka, Sun Microsystems, Inc.	TL	*Introductory*
BOF-5102	New Security Features in JDK™ Releases 6 and 7	Sean Mullan, Sun Microsystems, Inc. • Vincent Ryan, Sun Microsystems, Inc.		*Introductory*
BOF-5129	OpenJDK™ Porting	David Herron, David Herron • Dalibor Topic, Sun Microsystems, Inc.		*Advanced*
BOF-4987	OSGi Get-Together	BJ Hargrave, IBM	CT:EM • CT:EE CS • TL	*Introductory*

JAVA SE AND JAVA TECHNOLOGY FOR THE DESKTOP

BOF SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF-4682	Performance Comparisons of Dynamic Languages on the Java™ Virtual Machine	Michael Galpin, eBay	TL	*Advanced*
BOF-4787	Piccolo2D Open-Source Community Forum: The Future of Zooming User Interfaces	Stephen Chin, Inovis	RM • CS	*Advanced*
BOF-4746	Runtime Update of Java™ Technology-Based Applications, Using Dynamic Class Redefinition	Allan Gregersen, University of Southern Denmark	CS • TL	*Introductory*
BOF-4470	Spring ME: Unleashing Spring to the Rest of the Platform	Wilfred Springer, TomTom	CT:EM • CS	*Introductory*
BOF-4455	Swing Application Framework Update	Alexander Potochkin, Sun Microsystems, Inc.		*Introductory*
BOF-4813	SwingLabs Development Update	Jan Haderka, Neat Results ltd • Alexander Potochkin, Sun Microsystems, Inc.		*Advanced*
BOF-4880	Targeting Project Fortress, a New Programming Language from Sun Labs, to the JVM™ Machine	Christine Flood, Sun Microsystems, Inc.	TL	*Advanced*
BOF-3826	The Collections Connection (Gala Tenth Edition)	Joshua Bloch, Google, Inc. • Kevin Bourrillion, Google, Inc. Martin Buchholz, Google, Inc.		*Introductory*
BOF-3979	The Groovy and Grails BOF: With Live Grails Podcast Recording!	Sven Haiges, Technical Engineer • Glen Smith, Bytecode Pty Ltd	SV:WB • CS	*Introductory*
BOF-5360	The Modular Java™ Platform: Q&A	Alex Buckley, Sun Microsystems, Inc. • Mark Reinhold, Sun Microsystems, Inc.		*Advanced*

JAVA EE TECHNOLOGY

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-4640	A Complete Tour of the JavaServer™ Faces 2.0 Platform	Ed Burns, Sun Microsystems, Inc. • Roger Kitain, Sun Microsystems, Inc.		*Advanced*
TS-5265	A Java™ Persistence API Mapping Magical Mystery Tour	Michael Keith, Oracle Corporation	TL	*Introductory*
TS-5184	Bean Validation: Declare Once, Validate Anywhere — A Reality?	Emmanuel Bernard, JBoss, a Division of Red Hat	CT:SE	*Introductory*
TS-4407	Best Practices for Large-Scale Web Sites: Lessons from eBay	Randy Shoup, eBay		*Advanced*
TS-4062	Building Enterprise Java™ Technology-Based Web Apps with Google Open-Source Technology	Dhanji Prasanna, Google, Inc.	CT:SE • TL	*Introductory*
TS-4351	Building Facebook and OpenSocial Applications with Java™ Technology	Richard Pack, Hyperic, Inc.	SV:WB • CS	*Introductory*
TS-6726	Contexts and Dependency Injection for Java™ Platform, Enterprise Edition (Java EE Platform)	Gavin King, RedHat		*Introductory*
TS-5045	Conversations and Page Flows on the JavaServer™ Faces Platform	Dan Allen, Red Hat, Inc.		*Advanced*
TS-4993	Dealing with Asynchronicity in Java™ Technology-Based Web Services	Gerard Davison, Oracle Corporation • Manoj Kumar, Oracle USA		*Advanced*
TS-5295	Designing and Building Security into REST Applications	Sean Brydon, Sun Microsystems, Inc. Aravindan Ranganathan, Sun Microsystems, Inc.	SV:WB	*Advanced*

** Content subject to change.*

JAVA EE TECHNOLOGY

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4875	Developing RESTful Web Services with the Java™ API for RESTful Web Services (JAX-RS)	Marc Hadley, Sun Microsystems, Inc. • Paul Sandoz, Sun Microsystems, Inc.	SV:WB	*Introductory*
TS-4921	Dynamic Languages Powered by GlassFish™ Application Server v3	Jacob Kessler, Sun Microsystems, Inc. • Vivek Pandey, Sun Microsystems, Inc.	SV:WB • CS • TL	*Introductory*
TS-3890	Energy, CO2 Savings with Java™ Platform, Enterprise Edition and More: Project GreenFire	Adam Bien, adam-bien.com	CT:EM • CS	*Introductory*
TS-4605	Enterprise JavaBeans™ 3.1 (EJB™ 3.1) Technology Overview	Kenneth Saks, Sun Microsystems, Inc.		*Introductory*
TS-5198	Full-Text Search: Human Heaven and Database Savior in the Cloud	Emmanuel Bernard, JBoss, a Division of Red Hat • Aaron Walker, base2Services	SV:WB • CS	*Advanced*
TS-3941	Getting Serious About Build Automation: Using Maven in the Real World	John Smart, Wakaleo Consulting Ltd	TL	*Advanced*
TS-5214	Java™ Persistence API 2.0: What's New?	Linda DeMichiel, Sun Microsystems, Inc.		*Advanced*
TS-5055	Java™ Platform, Enterprise Edition 5 and 6: Eclipse and NetBeans™ IDE Tooling Offering	Ludovic Champenois, Sun Microsystems, Inc.	TL	*Introductory*
TS-4923	Java™ Platform, Enterprise Edition 6 with Extensible GlassFish™ Application Server V3	Jerome Dochez, Sun Microsystems, Inc.		*Advanced*
TS-4733	Java™ Platform, Enterprise Edition Technology-Based Connector Architecture 1.6	Binod Pg, Sun Microsystems, Inc. • Sivakumar Thyagarajan, Sun Microsystems, Inc.	SV:SOA	*Advanced*
TS-3790	Java™ Servlet 3.0: Empowering Your Web Applications With Async, Extensibility and More	Jan Luehe, Sun Microsystems, Inc. • Rajiv Mordani, Sun Microsystems, Inc.	SV:WB	*Advanced*
TS-4696	JDBC? We Don't Need No Stinkin' JDBC: How LinkedIn Scaled with memcached, SOA, and a Bit of SQL	David Raccah, LinkedIn Corporation • Dhananjay Ragade, LinkedIn Corporation	SV:WB	*Introductory*
TS-3977	Keeping a Relational Perspective for Optimizing the Java™ Persistence API (JPA)	Debu Panda, Oracle Corporation • Reza Rahman, Cognicellence		*Advanced*
TS-4402	Metro Web Services Security Usage Scenarios	Harold Carr, Sun Microsystems, Inc. • Jiandong Guo, Sun Microsystems, Inc.		*Advanced*
TS-5225	Spring Framework 3.0: New and Notable	Rod Johnson, SpringSource	CS	*Advanced*
TS-4599	Taking a SIP of Java™ Technology: Building Voice Mashups with SIP Servlets	RJ Auburn, Voxeo Corporation	SV:WB • CS	*Introductory*
TS-4208	The Galilean Moons of Eclipse	Wayne Beaton, Eclipse • Bjorn Freeman-Benson, Eclipse Foundation	CT:EM • TL	*Introductory*
TS-4005	The Web on OSGi: Here's How	Don Brown, Atlassian	SV:WB	*Advanced*
TS-4966	Upgrading OSGi	BJ Hargrave, IBM • Peter Kriens, aQute	CT:SE • CS	*Advanced*
TS-5246	Web 2.0 Security Puzzlers: Genuine Security Vulnerabilities or False Positives?	Ray Lai, Intuit	SV:WB	*Introductory*
TS-5205	Writing Killer JavaServer™ Faces 2.0 UI Components	Kito Mann, Virtua	SV:WB	*Introductory*
TS-4374	XSS-Proofing Your Java™ EE, JavaServer Pages™, and JavaServer™ Faces Applications	Jeff Williams, Aspect Security	SV:WB	*Introductory*
BOF SESSIONS				
BOF-3794	Apache Tapestry: State of the Union	Howard Lewis Ship, Independent Consultant		*Introductory*
BOF-4520	"Availability Management for Java™," JSR 319	Jens Jensen, Ericsson AB • Peter Kristiansson, Ericsson AB		*Introductory*
BOF-4394	Case Study: Managing a Large Web Service Project Based on Java™ Technology	Manoj Kumar, Oracle USA • Vaibhav Lole, Oracle, Inc		*Introductory*

JAVA EE TECHNOLOGY

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-4878	Developing RESTful Web Services with Jersey and Java™ API for RESTful Web Services (JAX-RS)	Craig McClanahan, Sun Microsystems, Inc. • Jakub Podlesak, Sun Microsystems, Inc. Paul Sandoz, Sun Microsystems, Inc.	SV:WB • CS • TL	*Introductory*
BOF-3952	Enterprise Web 2.0 Architectures: From Pristine Java™ EE Platform to Fully Loaded Frameworks	Alberto Lemos, Globalcode • Vinicius Senger, Globalcode	SV:WB	*Introductory*
BOF-5392	Grails Integration Strategies	Dave Klein, Contegix	SV:WB • CS	*Advanced*
BOF-4611	Grizzly 2.0: Monster Reloaded!	Jean-François Arcand, Sun Microsystems, Inc. Oleksiy Stashok, Sun Microsystems, Inc.	CT:SE	*Advanced*
BOF-5105	Hudson Community Meet-Up	Kohsuke Kawaguchi, Sun Microsystems, Inc.	TL	*Introductory*
BOF-5063	JavaFX™ Platform RIAs Joined to GlassFish™ App Server Java™ Platform, Enterprise Edition 5 Services	Ludovic Champenois, Sun Microsystems, Inc.	RM • SV:WB • CS	*Introductory*
BOF-4869	JavaServer™ Faces Platform and AJAX: State of the Union	Ted Goddard, ICEsoft Technologies • Roger Kitain, Sun Microsystems, Inc. Andy Schwartz, Oracle Corporation • Alexander Smirnov, Exadel, Inc.	SV:WB • CS	*Advanced*
BOF-5305	Java™ API for XML Web Services (JAX-WS) 2.2	Jitendra Kotamraju, Sun Microsystems, Inc. Rama Pulavarthi, Sun Microsystems, Inc.	CT:SE	*Advanced*
BOF-5076	Java™ Platform, Enterprise Edition 5/6 Sun Certified Architect Exam: Theory, Practice, Real World	Humphrey Sheil, Comtec (Europe) Ltd	SV:WB	*Advanced*
BOF-4483	Java™ Platform, Enterprise Edition 6 (Java EE 6 Platform) Community Discussion	Roberto Chinnici, Sun Microsystems, Inc.		*Introductory*
BOF-4926	JDBC™ 4.1 Specification Community Discussion	Lance Andersen, Sun Microsystems, Inc. • Mark Matthews, Sun Microsystems, Inc.	CT:SE	*Introductory*
BOF-4987	OSGi Get-Together	BJ Hargrave, IBM	CT:SE • CT:EM CS • TL	*Introductory*
BOF-5049	Scaling the Asynchronous Web	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	RM • SV:WB • CS	*Introductory*
BOF-5111	The Cookie Diet: Session Encapsulation	Gary Rudolph, eHarmony, Inc. • Joshua Tuberville, eHarmony, Inc.		*Advanced*
BOF-5215	The Java Persistence 2.0 API	Linda DeMichiel, Sun Microsystems, Inc.		*Advanced*
BOF-4027	The SAT Framework: Unleashing the Power of Selenium, ANT, and TestNG	Aditya Dada, Sun Microsystems, Inc.	RM • TL	*Advanced*
BOF-5275	Using and Participating in the OpenSSO Project	Sean Brydon, Sun Microsystems, Inc. • Pat Patterson, Sun Microsystems, Inc. Aravindan Ranganathan, Sun Microsystems, Inc.	SV:WB	*Introductory*
BOF-3980	Using Embedded Containers for Enterprise JavaBeans™ 3Technology-Based Components	David Blevins, Apache • Reza Rahman, Cognicellence		*Introductory*
BOF-5261	Web Services in Practice	Jitendra Kotamraju, Sun Microsystems, Inc. Rama Pulavarthi, Sun Microsystems, Inc.	SV:SOA	*Advanced*

** Content subject to change.*

EMBEDDED/REAL-TIME/JAVA CARD TECHNOLOGIES

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-6735	Building a Java™ Technology-Based Automation Controller: What, Why, How	Greg Bollella, Sun Microsystems, Inc.		*Advanced*
TS-6989	Building Real-Time Systems for the Real World	Mike Fulton, IBM Canada		*Introductory*
TS-4010	Duke's Dancing Partner: Connecting Handheld Game Consoles with Java&trade Technology	Chuk-Munn Lee, Sun Microsystems, Inc. • Max Mu, Sun Microsystems, Inc.	CS	*Advanced*
TS-4807	Easily Tuning Your Real-Time Application	Bertrand Delsart, Sun Microsystems, Inc. • Frederic Parain, Sun Microsystems, Inc.	CS • TL	*Advanced*
TS-3890	Energy, CO2 Savings with Java™ Platform, Enterprise Edition and More: Project GreenFire	Adam Bien, adam-bien.com	CT:EE • CS	*Introductory*
TS-4945	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Brad Miller, WPI	CS	*Introductory*
TS-6734	From Parking Meters to Netbooks: Java™ Platform, Standard Edition 6 for ARM-Based Devices	Bob Vandette, Sun Microsystems, Inc.		*Introductory*
TS-4674	Java™ in the Brazilian Digital TV: Interactivity and Digital Inclusion on TV	Magno Cavalcante, Petrobras • Clayton Chagas, Brazilian Army Research Center	RM • MB • CS	*Introductory*
TS-4771	Java Card™ 3 Platform: A Platform for Embedded Systems	Saqib Ahmad, Sun Microsystems, Inc. • Laurent Lagosanto, Gemalto Patrick Van Haver, Gemalto		*Introductory*
TS-4773	Java Card™ Platform Puzzlers	Alexander Glasman, Sun Microsystems, Inc. • Hema Kalsi, Sun Microsystems, Inc. Thierry Violleau, Sun Microsystems, Inc. • Lichun Zhan, Sun Microsystems, Inc.		*Advanced*
TS-4943	LincVolt Car: Driving Toward 100 Miles per Gallon	Paul Perrone, Perrone Robotics, Inc.	CS	*Introductory*
TS-5314	Optimizing Java™ Platform, Micro Edition for Blu-ray Players and Interactive DTVs/STBs	Hobum Kwon, Samsung Electronics		*Advanced*
TS-4978	Project playSIM: Experimenting with Java Card™ 3 System Programming	Eric Arseneau, Sun Microsystems, Inc. • Fritjof Engelhardtsen, Telenor	CS	*Advanced*
TS-5059	Real Time: Understanding the Trade-Offs Between Determinism and Throughput	Eric Bruno, Sun Microsystems, Inc. • Roland Westrelin, Sun Microsystems, Inc.	CS	*Introductory*
TS-4593	Real-Life Real Time: Practicalities of Using Sun Java&trade Real-Time System in a Real-Life System	Jeremy Hoyland, Sun Microsystems, Inc.		*Advanced*
TS-4639	Step-by-Step Development of an Application for the Java Card™ 3.0 Platform	Anki Nelaturu, Sun Microsystems, Inc. • Eric Vetillard, Trusted Labs		*Advanced*
TS-4868	Sun SPOTs: A Great Solution for Small Device Development	Claudio Horvilleur, Cromasoft	CS	*Introductory*
TS-4208	The Galilean Moons of Eclipse	Wayne Beaton, Eclipse • Bjorn Freeman-Benson, Eclipse Foundation	CT:EE • TL	*Introductory*

** Content subject to change.*

EMBEDDED/REAL-TIME/JAVA CARD TECHNOLOGIES

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-4743	A Lightweight Approach to Port JDK™ Software GUI Library to Unsupported Mobile/ Desktop Devices	Andrei Dmitriev, Sun Microsystems, Inc. • Roman Kennke, aicas.com Mario Torre, aicas.com	CT:SE	*Advanced*
BOF-4576	Demonstration of Electronic Health Records (EHR) on Java Card™ 3.0 Technology-Based Devices	Nicolas Anciaux, INRIA • Jean-Jacques Vandewalle, Gemalto	CS	*Advanced*
BOF-5346	Extreme and Complex Event Processing on the Java™ Platform, Using Equinox OSGi	Balamurali Kothandaraman, BEA Systems, Inc. • Takyiu Liu, BEA Systems, Inc.	SV:SOA • CS	*Introductory*
BOF-4953	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Derek White, Sun Microsystems, Inc.	CS	*Introductory*
BOF-5108	Fun with Java™ Technology on Lego Mindstorms	Roger Glassey, Berkeley University • Andy Shaw, Sun Microsystems, Inc.	CS	*Introductory*
BOF-4537	GEMs in the Living Room	Amir Amit, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	SV:WB • CS	*Introductory*
BOF-4560	Inside the Sun Java™ Real-Time System	Eric Bruno, Sun Microsystems, Inc. • Bertrand Delsart, Sun Microsystems, Inc. Antonios Printezis, Sun Microsystems, Inc.	CS	*Advanced*
BOF-4739	Integrating Java Card™ 3.0 Technology into the Desktop Environment	Sebastian Hans, Sun Microsystems, Inc.	CT:SE	*Advanced*
BOF-4679	Java™, the Internet of Things, and the Sun SPOT	Randall Smith, Sun Microsystems, Inc.	CS	*Introductory*
BOF-4987	OSGi Get-Together	BJ Hargrave, IBM	CT:SE • CT:EE CS • TL	*Introductory*
BOF-4470	Spring ME: Unleashing Spring to the Rest of the Platform	Wilfred Springer, TomTom	CT:SE • CS	*Introductory*
BOF-5369	Swarm of Brian	Bruce Boyes, Systronix Inc. • Brian Jenkins, Sun Microsystems, Inc.	CS	*Introductory*

** Content subject to change.*

TOOLS AND LANGUAGES

TECHNICAL SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TS-5265	A Java™ Persistence API Mapping Magical Mystery Tour	Michael Keith, Oracle Corporation	CT:EE	*Introductory*
TS-5395	Actor-Based Concurrency in Scala	Philipp Haller, EPFL • Frank Sommers, Artima	CT:SE	*Advanced*
TS-5385	Alternative Languages on the JVM™ Machine	Cliff Click, Azul Systems	CT:SE	*Advanced*
TS-5418	Building Commercial-Quality Eclipse Plug-Ins: By the Guys Who Wrote the Book	Eric Clayberg, Instantiations, Inc. • Dan Rubel, Instantiations, Inc.	CT:SE • CS	*Introductory*
TS-4062	Building Enterprise Java™ Technology-Based Web Apps with Google Open-Source Technology	Dhanji Prasanna, Google, Inc.	CT:SE • CT:EE	*Introductory*
TS-4164	Clojure: Dynamic Functional Programming for the JVM™ Machine	Rich Hickey, Clojure	CT:SE • CS	*Introductory*
TS-4955	Comparing Groovy and JRuby	Neal Ford, ThoughtWorks Inc.	CT:SE	*Introductory*
TS-5301	Continuous Integration in the Cloud with Hudson	Jesse Glick, Sun Microsystems, Inc. • Kohsuke Kawaguchi, Sun Microsystems, Inc.	CT:SE	*Introductory*
TS-4694	Debugging Your Production JVM™ Machine	Ken Sipe, Perficient	CS	*Advanced*
TS-5335	Defective Java™ Code: Mistakes That Matter	William Pugh, University of Maryland	CT:SE	*Introductory*
TS-4961	“Design Patterns” for Dynamic Languages on the JVM™ Machine	Neal Ford, ThoughtWorks Inc.	CT:SE • CS	*Advanced*
TS-4921	Dynamic Languages Powered by GlassFish™ Application Server v3	Jacob Kessler, Sun Microsystems, Inc. • Vivek Pandey, Sun Microsystems, Inc.	SV:WB • CT:EE • CS	*Introductory*
TS-4807	Easily Tuning Your Real-Time Application	Bertrand Delsart, Sun Microsystems, Inc. • Frederic Parain, Sun Microsystems, Inc.	CT:EM • CS	*Advanced*
TS-5217	“Effective Java”: Still Effective After All These Years	Joshua Bloch, Google, Inc.	CT:SE	*Advanced*
TS-4230	Enterprise Build and Test in the Cloud	Carlos Sanchez, Exist	SV:WB	*Introductory*
TS-5047	Enterprise Solutions for Java™ and JavaScript™ Technology Integration with Advanced Modeling/Tooling	Justin Early, eBay • Yitao Yao, eBay	SV:WB	*Advanced*
TS-5354	Exploiting Concurrency with Dynamic Languages	Tobias Ivarsson, Neo Technology	SV:WB • CT:SE	*Introductory*
TS-4363	Extreme Swing Debugging: The Fast and the Furious	Alexander Potochkin, Sun Microsystems, Inc. • Maxim Zakharenkov, Exigen, Inc.	CT:SE • CS	*Introductory*
TS-3802	Functional and Object-Oriented Programming in the JavaScript™ Programming Language	Roberto Chinnici, Sun Microsystems, Inc.	SV:WB	*Introductory*
TS-4247	Getting More Out of the Java™ VisualVM Tool	Geertjan Wielenga, Sun Microsystems, Inc.	CT:SE	*Introductory*
TS-3941	Getting Serious About Build Automation: Using Maven in the Real World	John Smart, Wakaleo Consulting Ltd	CT:EE	*Advanced*
TS-4238	HtmlUnit: An Efficient Approach to Testing Web Applications	Ahmed Ashour, Zain KSA • Daniel Gredler, DHL Global Mail	SV:WB	*Introductory*
TS-3968	JavaFX™ Programming Language + Groovy = Beauty + Productivity	Dierk König, Canoo Engineering AG	RM • CT:SE • CS	*Advanced*
TS-4863	Java™ Platform Concurrency Gotchas	Alex Miller, Terracotta	CT:SE	*Introductory*
TS-5055	Java™ Platform, Enterprise Edition 5 and 6: Eclipse and NetBeans™ IDE Tooling Offering	Ludovic Champenois, Sun Microsystems, Inc.	CT:EE	*Introductory*
TS-5413	JRuby on Rails in Production: Lessons Learned from Operating a Live, Real-World Site	Nick Sieger, Sun Microsystems, Inc.	SV:WB	*Advanced*
TS-5389	Less Is More: Redefining the “I” of the IDE	Mik Kersten, Tasktop Technologies	CT:SE • CS	*Introductory*

TOOLS AND LANGUAGES

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4166	Object-Oriented Ant Scripts for the Enterprise	Douglas Bullard, Nike, Inc.	CT:SE	*Advanced*
TS-4118	Practical Lessons in Memory Analysis	Andrew Johnson, IBM United Kingdom Limited • Krum Tsvetkov, SAP AG	CT:SE	*Introductory*
TS-3798	Preventing Bugs with Pluggable Type Checking	Michael Ernst, University of Washington	CT:SE • CS	*Advanced*
TS-5033	Scripting Java™ Technology with JRuby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • SV:WB • CT:SE	*Advanced*
TS-4487	The Feel of Scala	Bill Venners, Artima, Inc.	CT:SE	*Introductory*
TS-4208	The Galilean Moons of Eclipse	Wayne Beaton, Eclipse • Bjorn Freeman-Benson, Eclipse Foundation	CT:EM • CT:EE	*Introductory*
TS-5015	Welcome to Ruby	Thomas Enebo, Sun Microsystems, Inc. • Charles Nutter, Sun Microsystems, Inc.	RM • SV:WB • CT:SE	*Introductory*
TS-4215	What's New in Groovy 1.6?	Guillaume Laforge, SpringSource	CT:SE	*Advanced*
TS-4588	Where's My I/O: Some Insights into I/O Profiling and Debugging	Pavel Genevski, SAP AG	CT:SE	*Advanced*
PANEL SESSIONS				
PAN-5366	Cloud Computing: Show Me the Money	Jeff Barr, Amazon.com • Jeff Collins, Intuit • Adam Gross, salesforce.com, Inc. Simon Guest, Microsoft • Gregor Hohpe, Google, Inc. • Raghavan Srinivas, Intuit Lew Tucker, Sun Microsystems, Inc.	SV:SOA • SV:WB • CS	*Introductory*
PAN-5348	Script Bowl 2009: A Scripting Languages Shootout	Roberto Chinnici, Sun Microsystems, Inc. • Thomas Enebo, Sun Microsystems, Inc. Rich Hickey, Clojure • Guillaume Laforge, SpringSource • Martin Odersky, EPFL Raghavan Srinivas, Intuit • Frank Wierzbicki, Sun Microsystems, Inc.	CT:SE	*Introductory*
BOF SESSIONS				
BOF-4464	2008: The Rise of Mobile Scripting	Roy Ben Hayun, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	RM • CS	*Introductory*
BOF-4903	A RESTful Approach to Identity-based Web Services	Marc Hadley, Sun Microsystems, Inc. • Hubert Le Van Gong, Sun Microsystems, Inc.	SV:WB • CS	*Advanced*
BOF-4424	Advanced Debugging and Profiling on Java™ Technology-Enabled Devices	Iddo Arie, Sun Microsystems, Inc. • Roy Ben Hayun, Sun Microsystems, Inc.		*Advanced*
BOF-4558	Creating Professional Rich Client Applications	Jan Stola, Sun Microsystems, Inc. • Jiri Vagner, Sun Microsystems, Inc.	CT:SE	*Advanced*
BOF-4878	Developing RESTful Web Services with Jersey and Java™ API for RESTful Web Services (JAX-RS)	Craig McClanahan, Sun Microsystems, Inc. • Jakub Podlesak, Sun Microsystems, Inc. Paul Sandoz, Sun Microsystems, Inc.	SV:WB • CT:EE • CS	*Introductory*
BOF-4550	Developing/Testing Accessible Java™ Technology-Based Applications in the NetBeans™ IDE	Tomas Musil, Sun Microsystems, Inc. • Jaromir Uhrik, Sun Microsystems, Inc.	CT:SE • CS	*Introductory*
BOF-4554	From Annotations to Unit Test Code Generation	Jacques Brawerman, Petrobras	CT:SE	*Introductory*
BOF-5189	Griffon in Depth	Danno Ferrin, Intelligent Software Solutions, Inc. • James Williams, Code Herd	RM • CT:SE	*Advanced*
BOF-4434	Hacking JRuby	Ola Bini, ThoughtWorks	SV:WB • CT:SE	*Advanced*
BOF-5048	How to Use the Enterprise Service Bus Without Its Using You	David Wroton, Oppenheimer Funds	SV:SOA	*Advanced*
BOF-5105	Hudson Community Meet-Up	Kohsuke Kawaguchi, Sun Microsystems, Inc.	CT:EE	*Introductory*
BOF-4135	Java™ Programming Language Tools in JDK™ Release 7	Maurizio Cimadamore, Sun Microsystems, Inc. Jonathan Gibbons, Sun Microsystems, Inc.	CT:SE	*Advanced*

TOOLS AND LANGUAGES

BOF SESSIONS

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF-5058	JRuby Experiences in the Real World	Logan Barnett, Happy Camper Studios • David Koontz, Happy Camper Studios	SV:WB • CT:SE	*Advanced*
BOF-5236	JSR 292 Cookbook	John Rose, Sun Microsystems, Inc.	CT:SE • CS	*Advanced*
BOF-4870	JSR 326: Diagnosing Deadly Java™ Platform Problems — Future of Java Technology Forensics	Steve Poole, IBM	CT:SE	*Advanced*
BOF-5358	Language Interoperability on the JVM™ Machine Made Simple	Tobias Ivarsson, Neo Technology	CT:SE	*Advanced*
BOF-3820	Lift: The Best Way to Create Rich Internet Applications with Scala	David Pollak, Lift Web Framework	SV:WB	*Introductory*
BOF-4724	Monitoring and Troubleshooting Java™ Platform Applications with JDK™ Software	Mandy Chung, Sun Microsystems, Inc. • Tomas Hurka, Sun Microsystems, Inc.	CT:SE	*Introductory*
BOF-4987	OSGi Get-Together	BJ Hargrave, IBM	CT:SE • CT:EM CT:EE • CS	*Introductory*
BOF-4682	Performance Comparisons of Dynamic Languages on the Java™ Virtual Machine	Michael Galpin, eBay	CT:SE	*Advanced*
BOF-4746	Runtime Update of Java™ Technology-Based Applications, Using Dynamic Class Redefinition	Allan Gregersen, University of Southern Denmark	CT:SE	*Introductory*
BOF-4880	Targeting Project Fortress, a New Programming Language from Sun Labs, to the JVM™ Machine	Christine Flood, Sun Microsystems, Inc.	CT:SE	*Advanced*
BOF-4344	Test Tools BOF	Frank Cohen, PushToTest	RM • SV:WB	*Advanced*
BOF-4027	The SAT Framework: Unleashing the Power of Selenium, ANT, and TestNG	Aditya Dada, Sun Microsystems, Inc.	RM • CT:EE	*Advanced*
BOF-5221	Writing Rich Applications for IPTV	Steven Doyle, Sun Microsystems, Inc.	RM • CS	*Introductory*
BOF-4050	Your Code, Your Community . . . Your Cloud: Project Kenai	John Brock, Sun Microsystems, Inc. • Sharat Chander, Sun Microsystems, Inc.	SV:WB	*Introductory*

COOL STUFF

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-4842	A Music Visualizer with the Java™ Media Framework API and JavaFX™ Technology	Lucas Jordan, EffectiveUI	RM	*Introductory*
TS-4538	A Virtual Multimedia Office	Eltjo Boersma, Ericsson • Erik Reitsma, Ericsson	RM	*Introductory*
TS-4475	Applying Complex Event Processing (CEP) with a Stateful Rules Engine for Real-Time Intelligence	Adam Mollenkopf, FedEx Custom Critical • Mark Proctor, Red Hat	SV:SOA	*Introductory*
TS-4723	Ardor3D: Improving on the Monkey	Joshua Slack, Ardor Labs	CT:SE	*Introductory*
TS-4533	Augmented Reality with Java™ Platform, Micro Edition (Java ME Platform) Devices	Kenneth Andersson, Sony Ericsson • Erik Hellman, Sony Ericsson		*Advanced*
TS-4854	Beyond Broadcast: Building and Optimizing Interactive Television Applications with Two-Way Data	Anne Dirkse, enableTV, Inc. • Wendy Lally, enableTV, Inc.	RM	*Advanced*
TS-4182	Blink: Making the World More Accessible, One Blink at a Time	Telly Stroumbis, Boeing	CT:SE	*Advanced*
TS-5418	Building Commercial-Quality Eclipse Plug-Ins: By the Guys Who Wrote the Book	Eric Clayberg, Instantiations, Inc. • Dan Rubel, Instantiations, Inc.	CT:SE • TL	*Introductory*
TS-4351	Building Facebook and OpenSocial Applications with Java™ Technology	Richard Pack, Hyperic, Inc.	SV:WB • CT:EE	*Introductory*
TS-5213	Cleaning Up with AJAX: Building Great Apps That Users Will Love	Clint Oram, SugarCRM	SV:WB	*Advanced*
TS-4164	Clojure: Dynamic Functional Programming for the JVM™ Machine	Rich Hickey, Clojure	CT:SE • TL	*Introductory*
TS-4403	Creating Games with the Open-Source Multithreaded Game Engine (MTGame)	Doug Twilleager, Sun Microsystems, Inc.	RM	*Advanced*
TS-5468	Cross-Browser Vector Graphics with the Canvas Tag and SVG	Ignacio Blanco, Google, Inc. • Patrick Chanezon, Google, Inc.	SV:WB	*Advanced*
TS-4694	Debugging Your Production JVM™ Machine	Ken Sipe, Perficient	TL	*Advanced*
TS-4381	Deploying Java™ Technology to The Masses: How Sun Deploys The JavaFX™ Runtime	Craig Newell, Sun Microsystems, Inc. • Thomas Ng, Sun Microsystems, Inc.	CT:SE	*Advanced*
TS-4961	"Design Patterns" for Dynamic Languages on the JVM™ Machine	Neal Ford, ThoughtWorks Inc.	CT:SE • TL	*Advanced*
TS-4408	Developing JavaServer™ Faces Applications for Mobile Device Browsers	Joe Huang, Oracle Corporation • Matthias Wessendorf, Oracle Corporation	SV:WB	*Introductory*
TS-5162	Developing LimeWire: Swing for the Masses	Sam Berlin, Lime Wire, LLC • Michael Everett, Lime Wire, LLC	CT:SE	*Advanced*
TS-5034	Developing Smart Java™ Code with Semantic Web Technology	Holger Knublauch, TopQuadrant, Inc.	RM • SV:WB • CT:SE	*Introductory*
TS-4789	Developing Visually Stunning 3-D User Experiences with Java™ Technology and M3G on Mobile	Peter Horsman, ARM Ltd.	RM	*Introductory*
TS-4388	Distributing JavaFX™ Applications with Java™ Web Start Software/Maven Repository Manager	Yoav Landman, JFrog Ltd. • Frederic Simon, JFrog Ltd.	CT:SE	*Advanced*
TS-5410	Drizzle: A New Database for the Cloud	Monty Taylor, Sun Microsystems, Inc.	SV:WB	*Introductory*
TS-4847	DTrace and Java™ Technology: Taking Observability to the Next Dimension	Jonathan Haslam, Sun Microsystems, Inc. • Simon Ritter, Sun Microsystems, Inc.	CT:SE	*Advanced*
TS-4010	Duke's Dancing Partner: Connecting Handheld Game Consoles with Java&trade Technology	Chuk-Munn Lee, Sun Microsystems, Inc. • Max Mu, Sun Microsystems, Inc.	CT:EM	*Advanced*
TS-4921	Dynamic Languages Powered by GlassFish™ Application Server v3	Jacob Kessler, Sun Microsystems, Inc. • Vivek Pandey, Sun Microsystems, Inc.	SV:WB • CT:EE • TL	*Introductory*
TS-5487	Easily Creating Games for Blu-ray Disc, tru2way, MHP and Other TV Platforms	Bill Foote, Sun Microsystems, Inc.	RM	*Advanced*
TS-4807	Easily Tuning Your Real-Time Application	Bertrand Delsart, Sun Microsystems, Inc. • Frederic Parain, Sun Microsystems, Inc.	CT:EM • TL	*Advanced*

** Content subject to change.*

COOL STUFF

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-3890	Energy, CO2 Savings with Java™ Platform, Enterprise Edition and More: Project GreenFire	Adam Bien, adam-bien.com	CT:EM • CT:EE	*Introductory*
TS-5038	Exploring Spontaneous Communication in a Seamless World	Vando Batista, C.E.S.A.R		*Advanced*
TS-4363	Extreme Swing Debugging: The Fast and the Furious	Alexander Potochkin, Sun Microsystems, Inc. • Maxim Zakharenkov, Exigen, Inc.	CT:SE • TL	*Introductory*
TS-4945	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Brad Miller, WPI	CT:EM	*Introductory*
TS-5198	Full-Text Search: Human Heaven and Database Savior in the Cloud	Emmanuel Bernard, JBoss, a Division of Red Hat • Aaron Walker, base2Services	SV:WB • CT:EE	*Advanced*
TS-5134	Fusing 3-D Java™ Technologies to Create a Mirror World	Scott Bennett, SRA International, Inc. • Steve Vaughan, SRA International, Inc.	CT:SE	*Advanced*
TS-4564	Gaming Package for Java™ Technology on TV: Solving the Gaming Problem	Amir Amit, Sun Microsystems, Inc. • Sourath Roy, Sun Microsystems, Inc.	RM	*Introductory*
TS-6802	Hadoop, a Highly Scalable, Distributed File/Data Processing System Implemented in Java™ Technology	Sanjay Radia, Yahoo	SV:WB	*Introductory*
TS-5035	How to BluTube: Broadcasting over Broadband to a Blu-ray Player	Won Baek, Dreamer • John Kim, Dreamer	RM	*Advanced*
TS-5280	JavaFX™ Platform: Animations, Timelines, and Collision Analysis for Games	Peter Pilgrim, LLoyds TSB	RM • CT:SE	*Introductory*
TS-3968	JavaFX™ Programming Language + Groovy = Beauty + Productivity	Dierk König, Canoo Engineering AG	RM • CT:SE • TL	*Advanced*
TS-4142	JavaFX™ Technology + JSAPI2 = VoiceFX: Add Voice Recognition to Your JavaFX Applications	Eric Smith, Burning Sun Enterprises	RM • CT:SE	*Introductory*
TS-4069	JavaFX™ Technology in Action: From Design Tool to Desktop, to Mobile Device	Mike Mannion, Canoo Engineering AG	RM	*Introductory*
TS-4674	Java™ in the Brazilian Digital TV: Interactivity and Digital Inclusion on TV	Magno Cavalcante, Petrobras • Clayton Chagas, Brazilian Army Research Center	RM • MB • CT:EM	*Introductory*
TS-5389	Less Is More: Redefining the "I" of the IDE	Mik Kersten, Tasktop Technologies	CT:SE • TL	*Introductory*
TS-4943	LincVolt Car: Driving Toward 100 Miles per Gallon	Paul Perrone, Perrone Robotics, Inc.	CT:EM	*Introductory*
TS-5082	Matchmaking in the Cloud: Hadoop and EC2 at eHarmony	Per Jacobsson, eHarmony • Steve Kuo, eHarmony	SV:WB	*Introductory*
TS-4506	Migrating Your Java™ Platform, Micro Edition Midlets to JavaFX™ Mobile Technology	Hinkmond Wong, Sun Microsystems, Inc.	RM	*Introductory*
TS-5136	Nereus-V: Massively Parallel Computing of, by, and for the Community	Rhys Newman, Oxford University • Ian Preston, Oxford University	SV:WB • CT:SE	*Introductory*
TS-4012	Pragmatic Identity 2.0: Simple, Open, Identity Services Using REST	Pat Patterson, Sun Microsystems, Inc. • Ron Ten-Hove, Sun Microsystems, Inc.	SV:WB	*Introductory*
TS-3798	Preventing Bugs with Pluggable Type Checking	Michael Ernst, University of Washington	CT:SE • TL	*Advanced*
TS-4861	Pro JavaFX™ Platform: RIA Enterprise Application Development with JavaFX Technology	Stephen Chin, Inovis • Jim Weaver, Veriana	RM	*Introductory*
TS-4333	Programming Music for Fun and Productivity: JFugue and Log4JFugue	David Koelle, Charles River Analytics Inc. • Brian Tarbox, Wabi Sabi Software	CT:SE	*Introductory*
TS-4575	Project Darkstar: A Scalable Application Server for Networked Games, Virtual Worlds, and MMOGs	Owen Kellett, Sun Microsystems, Inc.	RM	*Introductory*
TS-4978	Project playSIM: Experimenting with Java Card™ 3 System Programming	Eric Arseneau, Sun Microsystems, Inc. • Fritjof Engelhardtsen, Telenor	CT:EM	*Advanced*

** Content subject to change.*

COOL STUFF

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
TECHNICAL SESSIONS				
TS-5059	Real Time: Understanding the Trade-Offs Between Determinism and Throughput	Eric Bruno, Sun Microsystems, Inc. • Roland Westrelin, Sun Microsystems, Inc.	CT:EM	*Introductory*
TS-5173	Resource-Oriented Architecture (ROA) and REST	Scott Davis, Davisworld Consulting, Inc.	SV:SOA	*Introductory*
TS-5098	RIA Teacher Gradebook Managing Millions of Students with Swing and Web Services: How It Was Done	Deane Richan, Pearson	RM • CT:SE	*Introductory*
TS-5201	Save the Planet! Go Green by Using Java™ Technology in Unexpected Places	Joe Polastre, Sentilla		*Introductory*
TS-5225	Spring Framework 3.0: New and Notable	Rod Johnson, SpringSource	CT:EE	*Advanced*
TS-4641	State: You're Doing It Wrong — Alternative Concurrency Paradigms on the JVM&trade Machine	Jonas Bonér, Scalable Solutions	CT:SE	*Introductory*
TS-4877	Sun GlassFish™ Mobility Platform	Hans Hrasna, Sun Microsystems, Inc. Santiago Pericas-Geertsen, Sun Microsystems, Inc.		*Introductory*
TS-4868	Sun SPOTs: A Great Solution for Small Device Development	Claudio Horvilleur, Cromasoft	CT:EM	*Introductory*
TS-4599	Taking a SIP of Java™ Technology: Building Voice Mashups with SIP Servlets	RJ Auburn, Voxeo Corporation	SV:WB • CT:EE	*Introductory*
TS-5245	The Ghost in the Virtual Machine: A Reference to References	Bob Lee, Google, Inc.	CT:SE	*Advanced*
TS-4454	The Magic of the JXLayer Component	Alexander Potochkin, Sun Microsystems, Inc.	CT:SE	*Introductory*
TS-5488	The Mobile Evolution: From Java™ Platform, Micro Edition to JavaFX™ Mobile Applications	Adam Sotona, Sun Microsystems, Inc. • Petr Suchomel, Sun Microsystems, Inc.		*Advanced*
TS-4629	Tips and Tricks for AJAX Push and Comet Applications	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	SV:WB	*Introductory*
TS-5117	Touch Our Application! Building a Rich Touch-Enabled SVG UI for Java™ Platform, Micro Edition	Karol Harezlak, Sun Microsystems, Inc.		*Advanced*
TS-5216	Toward a Renaissance VM	Brian Goetz, Sun Microsystems, Inc. • John Rose, Sun Microsystems, Inc.	CT:SE	*Advanced*
TS-5253	Under the Hood: Inside a High-Performance JVM™ Machine	Trent Gray-Donald, IBM	CT:SE	*Advanced*
TS-4966	Upgrading OSGi	BJ Hargrave, IBM • Peter Kriens, aQute	CT:SE • CT:EE	*Advanced*
TS-5036	Using REST and WS-* in the Cloud	Doug Tidwell, IBM	SV:SOA • SV:WB CT:SE	*Introductory*
TS-4086	Visual JavaFX™ Technology-Based Design with JFXBuilder	Josh Doenias, ReportMill Software • Jeff Martin, ReportMill Software, Inc.	RM	*Introductory*
TS-5154	XTP: Patterns for Scaling SOA, WOA, and REST Predictably with a Java™ Technology-Based Data Grid	David Chappell, Oracle Corporation	SV:SOA	*Advanced*

* *Content subject to change.*

COOL STUFF

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
PANEL SESSIONS				
PAN-5210	Blu-ray and Java™ Technology Roundtable	Ivar Chan, Trailer Park • Bill Foote, Sun Microsystems, Inc. Joe Rice, MX Production Services	RM	*Introductory*
PAN-5366	Cloud Computing: Show Me the Money	Jeff Barr, Amazon.com • Jeff Collins, Intuit • Adam Gross, salesforce.com, Inc. Simon Guest, Microsoft • Gregor Hohpe, Google, Inc. • Raghavan Srinivas, Intuit Lew Tucker, Sun Microsystems, Inc.	SV:SOA • SV:WB TL	*Introductory*
PAN-5388	Making Music with the Java™ Programming Language	Frank Greco, NYJavaSIG	RM	*Advanced*
PAN-4670	Why the Java™ Platform Matters in Higher Education	Gerard Briscoe, London School of Economics • Barry Burd, Drew University Rommel Feria, University of the Philippines • Bob Jacobsen, University of California - Berkeley • James Robertson, Univ of MD University College	CT:SE	*Introductory*
BOF SESSIONS				
BOF-4464	2008: The Rise of Mobile Scripting	Roy Ben Hayun, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	RM • TL	*Introductory*
BOF-4903	A RESTful Approach to Identity-based Web Services	Marc Hadley, Sun Microsystems, Inc. • Hubert Le Van Gong, Sun Microsystems, Inc.	SV:WB • TL	*Advanced*
BOF-4982	Alice 3: Introducing Java™ Technology-Based Programming with 3-D Graphics	Dennis Cosgrove, Carnegie Mellon University • Wanda Dann, Carnegie Mellon University • Donald Slater, Carnegie Mellon University	RM	*Introductory*
BOF-5376	Building Consistent RESTful APIs in a High-Performance Environment	Yegor Borovikov, LinkedIn Corporation • Brandon Duncan, LinkedIn Corporation	SV:SOA • SV:WB	*Advanced*
BOF-4638	Cloud Computing and NetBeans™ IDE Enable Army Research Lab's Next-Generation Simulation System	Ronald Bowers, Army Research Laboratory • Dennis Reedy, Elastic Grid LLC.	SV:WB	*Introductory*
BOF-4958	Data Integration with Smooks: Split, Transform, and Analyze Your Data in an ESB World	Tom Fennelly, JBoss / Red Hat	SV:SOA	*Introductory*
BOF-4576	Demonstration of Electronic Health Records (EHR) on Java Card™ 3.0 Technology-Based Devices	Nicolas Anciaux, INRIA • Jean-Jacques Vandewalle, Gemalto	CT:EM	*Advanced*
BOF-4878	Developing RESTful Web Services with Jersey and Java™ API for RESTful Web Services (JAX-RS)	Craig McClanahan, Sun Microsystems, Inc. • Jakub Podlesak, Sun Microsystems, Inc. Paul Sandoz, Sun Microsystems, Inc.	SV:WB • CT:EE • TL	*Introductory*
BOF-4550	Developing/Testing Accessible Java™ Technology-Based Applications in the NetBeans™ IDE	Tomas Musil, Sun Microsystems, Inc. • Jaromir Uhrik, Sun Microsystems, Inc.	CT:SE • TL	*Introductory*
BOF-5346	Extreme and Complex Event Processing on the Java™ Platform, Using Equinox OSGi	Balamurali Kothandaraman, BEA Systems, Inc. • Takyiu Liu, BEA Systems, Inc.	SV:SOA • CT:EM	*Introductory*
BOF-4953	FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition	Eric Arseneau, Sun Microsystems, Inc. • Derek White, Sun Microsystems, Inc.	CT:EM	*Introductory*
BOF-4554	From Annotations to Unit Test Code Generation	Jacques Brawerman, Petrobras	CT:SE	*Introductory*
BOF-5108	Fun with Java™ Technology on Lego Mindstorms	Roger Glassey, Berkeley University • Andy Shaw, Sun Microsystems, Inc.	CT:EM	*Introductory*
BOF-4537	GEMs in the Living Room	Amir Amit, Sun Microsystems, Inc. • Assaf Yavnai, Sun Microsystems, Inc.	SV:WB • CT:EM	*Introductory*
BOF-5392	Grails Integration Strategies	Dave Klein, Contegix	SV:WB • CT:EE	*Advanced*

* *Content subject to change.*

COOL STUFF

Session ID	Session Title	Speaker(s)	Related Topic(s)	Level
BOF SESSIONS				
BOF-4560	Inside the Sun Java™ Real-Time System	Eric Bruno, Sun Microsystems, Inc. • Bertrand Delsart, Sun Microsystems, Inc. Antonios Printezis, Sun Microsystems, Inc.	CT:EM	*Advanced*
BOF-4768	Integrating PDF into Java™ Technology-Based Workflow Systems	Simon Barnett, Independent Consultant • Nichole Boundy, Consultant	CT:SE	*Introductory*
BOF-5063	JavaFX™ Platform RIAs Joined to GlassFish™ App Server Java™ Platform, Enterprise Edition 5 Services	Ludovic Champenois, Sun Microsystems, Inc.	RM • SV:WB • CT:EE	*Introductory*
BOF-4548	JavaFX™ Technology for TV: That Other Screen in Your Life	Ronan McBrien, Sun Microsystems, Inc.	RM	*Introductory*
BOF-4869	JavaServer™ Faces Platform and AJAX: State of the Union	Ted Goddard, ICEsoft Technologies • Roger Kitain, Sun Microsystems, Inc. Andy Schwartz, Oracle Corporation • Alexander Smirnov, Exadel, Inc.	SV:WB • CT:EE	*Advanced*
BOF-4844	Java™ and JavaFX™ Technology and the Nintendo Wiimote: Just How Much Fun Can You Have?	Angela Caicedo, Sun Microsystems, Inc. • Simon Ritter, Sun Microsystems, Inc.	RM • CT:SE	*Advanced*
BOF-3904	Java™ Champions, Java User Group Leaders, and NetBeans Dream Team Discussion with Sun Software	Reginald Hutcherson and 3 or 4 JUG Community Leaders and Java Champions	CT:SE	*Introductory*
BOF-4679	Java™, the Internet of Things, and the Sun SPOT	Randall Smith, Sun Microsystems, Inc.	CT:EM	*Introductory*
BOF-4905	JFreeChart: Surviving and Thriving	David Gilbert, Object Refinery Limited	RM • CT:SE	*Introductory*
BOF-5236	JSR 292 Cookbook	John Rose, Sun Microsystems, Inc.	CT:SE • TL	*Advanced*
BOF-4738	Medical Instrument Systems Middleware with SOA, OpenESB, and GlassFish™ V2 Application Server	Haridas Puthiyapurayil, Abbott Laboratories	SV:SOA	*Introductory*
BOF-4418	Meet the Java™ Posse	Joe Nuxoll, The Java Posse • Carl Quinn, Google, Inc. • Dick Wall, Navigenics, Inc.	CT:SE	*Introductory*
BOF-4849	Mobile Motion and Noise Detector Application with Network Support	Péter Ekler, Budapest University of Tech.	RM	*Introductory*
BOF-4702	Mobile Phone in Continuous Glucose Monitoring	Irvin Ye, Sun Microsystems, Inc.		*Introductory*
BOF-4987	OSGi Get-Together	BJ Hargrave, IBM	CT:SE • CT:EM CT:EE • TL	*Introductory*
BOF-4787	Piccolo2D Open-Source Community Forum: The Future of Zooming User Interfaces	Stephen Chin, Inovis	RM • CT:SE	*Advanced*
BOF-5131	Project Wonderland: Build 3-D Virtual Worlds with Java™ Technology	Paul Byrne, Sun Microsystems, Inc. • Jonathan Kaplan, Sun Microsystems, Inc.	RM	*Introductory*
BOF-4746	Runtime Update of Java™ Technology-Based Applications, Using Dynamic Class Redefinition	Allan Gregersen, University of Southern Denmark	CT:SE	*Introductory*
BOF-5049	Scaling the Asynchronous Web	Jean-François Arcand, Sun Microsystems, Inc. • Ted Goddard, ICEsoft Technologies	RM • SV:WB • CT:EE	*Introductory*
BOF-4805	Spice Up Your JavaFX™ Mobile Applications with Rich Multimedia	Michael Heinrichs, Sun Microsystems, Inc. • Petr Vasenda, Sun Microsystems, Inc.	RM	*Introductory*
BOF-4470	Spring ME: Unleashing Spring to the Rest of the Platform	Wilfred Springer, TomTom	CT:SE • CT:EM	*Introductory*
BOF-5369	Swarm of Brian	Bruce Boyes, Systronix Inc. • Brian Jenkins, Sun Microsystems, Inc.	CT:EM	*Introductory*
BOF-3979	The Groovy and Grails BOF: With Live Grails Podcast Recording!	Sven Haiges, Technical Engineer • Glen Smith, Bytecode Pty Ltd	SV:WB • CT:SE	*Introductory*
BOF-5221	Writing Rich Applications for IPTV	Steven Doyle, Sun Microsystems, Inc.	RM • TL	*Introductory*

** Content subject to change.*

TECHNICAL SESSIONS

TS-3790 Java™ Servlet 3.0: Empowering Your Web Applications With Async, Extensibility and More

Jan Luehe, Sun Microsystems, Inc.
Rajiv Mordani, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms •
CORE TECHNOLOGY: Java EE Technology | *Advanced*

Java™ Servlet 3.0 is a major revision of the Java Servlet specification and includes changes to enable pluggability of frameworks, ease of development, support for async processing, security enhancements, and other minor updates to the existing APIs. This session gives you an overview of the new features with focus on extensibility and async features. In addition to discussing the new features, the session includes demos that show the implementation of the specification in action with the GlassFish™ application server implementation.

TS-3798 Preventing Bugs with Pluggable Type Checking

Michael Ernst, University of Washington

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop •
Cool Stuff • Tools and Languages | *Advanced*

Are you tired of null pointer exceptions, unintended side effects, mistaken equality tests, and other runtime errors that appear during testing or in the field? A pluggable type system can guarantee the absence of these types of errors and many more. This session describes a set of pluggable type checkers that operate as annotation processors for javac. The type checkers are easy to use (for example, the syntax is much less verbose than generics) and have found many errors in real programs. The Java™ 7 programming language will contain syntactic support for type annotations, but meanwhile your code remains backward-compatible with all versions of the Java programming language.

The session also discusses and demonstrates the Checker Framework, which enables programmers to write an annotation processor that checks custom properties of your code and prevents even more bugs. The type checkers and the Checker Framework are publicly available at http://groups.csail.mit.edu/pag/jsr308/.

This presentation is intended for programmers who are familiar with the Java programming language and want to improve the quality of their code to prevent runtime exceptions.

You will learn
- About practical tools that detect and prevent bugs
- How you can download and use the tools today
- How to write custom checkers to prevent even more bugs

You will also see the Java 7 programming language's type annotations in action.

TS-3802 Functional and Object-Oriented Programming in the JavaScript™ Programming Language

Roberto Chinnici, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms •
Tools and Languages | *Introductory*

The JavaScript™ programming language is recognized as the assembly language for the Web. It is ubiquitous as a key component of AJAX, and as such it has been covered in detail in books, technical articles, and programming Web sites.

Recently people have started recognizing that the JavaScript programming language is more than a language for Web pages. One the one hand, our understanding of the language itself has improved, and with it the realization that, for all its warts, the JavaScript programming language is at its core a modern, powerful, and expressive programming language. The other contribution to the rediscovery of the JavaScript programming language as a general-purpose language comes from the latest generation of implementations (V8, TraceMonkey, SquirrelFish) and their use of sophisticated just-in-time compilation and optmization strategies.

This session focuses on the best parts of the JavaScript programming language, starting with its functional core, rooted in Lisp and Scheme, and progressing to its prototype-based object system. In the process, it shows how the two aspects build on each other to realize the potential of the JavaScript programming language as a language. The presentation uses examples drawn from popular AJAX toolkits such as jQuery and Prototype.

TS-3809 Bulletproof User Interfaces

Jared MacDonald, The MathWorks, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Consider: Test-driven development isn't performed on user interface code, for a variety of alleged reasons: (1) it is too hard, (2) it requires difficult or unmaintained tools, or (3) it just isn't worth it. These are, in fact, all myths — assuming that you want user interface code that isn't buggy, that can be refactored with confidence, and that clearly satisfies requirements. This session demonstrates how to apply test-driven development to produce a bulletproof Swing-based user interface.

The intended audience for this session is developers who are facile in Swing but new to test-driven development or who haven't considered applying it to Swing. The presentation challenges attendees to write Swing code in a fundamentally different way.

In this session, attendees will
- Learn how to translate user interface requirements into tests
- Understand the "red, green, refactor" cycle of test-driven development
- See how to apply that process to produce bug-free Swing code
- Learn how to write tests that handle changing requirements

TS-3890 Energy, CO2 Savings with Java™ Platform, Enterprise Edition and More: Project GreenFire

Adam Bien, adam-bien.com

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies •
CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Introductory*

Intelligent heating control not only saves energy (30 %–50%) and is environmentally friendly but also increases living comfort. The prioritization of energy sources — solar thermal collector, wood-burning stove, main heater — combined with the inclusion of weather forecasts, contributes considerably to energy savings. This session describes the architecture of the GreenFire.dev.java.net project, focusing on
- Use of JSR 223 (Scripting Integration) in the Java™ Platform, Enterprise Edition 6 (Java EE 6) environment for implementing flexible rule systems
- Reporting

cont. >>

* Content subject to change.

- Using Enterprise JavaBeans™ 3 (EJB™ 3) technology-based timer service
- Java EE technology-compatible hardware integration
- Sun SPOT and sensor network integration
- Using JavaFX™ technology with Swing and EJB 3 technology
- Sensor testing (with JUnit and mocking)
- Speech synthesizer integration (FreeTTS)
- Management and monitoring of heating systems over the Internet
- Mobile device integration
- Integration of multimedia center systems

The session concentrates on the technical aspects, especially experiences with the modularization, architecture, and implementation, of the GreenFire heating system. Parallels to the integration of legacy systems using Java EE technology and problems with testing of "inconvenient" systems are highlighted too.

TS-3895 Swing Filthy-Rich Clients on Mobile Devices with Lightweight User Interface Toolkit (LWUIT)

Shai Almog, vPrise LLC
Chen Fishbein, Sun Microsystems, Inc.

MOBILITY | *Advanced*

Similar to the sessions made famous by the Swing team this session covers in depth customization of LWUIT converting a plain looking LWUIT application to a flashy Mobile 2.0 style application.

This session is designed for people with technical familiarity of LWUIT and deemed "advanced" however it would be entertaining for novices in its coverage of what can be done in mobile phones today.

In this session you will learn how to leverage LWUIT even further by creating a UI that is unique and expressive. You will learn how to think outside the box and use Java ME's strengths to the fullest extent.

TS-3896 Accessing RESTful Web Services from the JavaFX™ Script Platform

Akhil Arora, Sun Microsystems, Inc.
Kinsley Wong, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

This session, for developers intending to use Web services in their JavaFX™ Script applications, introduces support for RESTful Web services on the JavaFX Script platform. It covers the foundational blocks — HttpRequest for transferring resource representations and XML and JSON parsers — in depth. It also discusses and demonstrates multiple examples of accessing popular Web services.

In this session:

- Learn how to make HTTP requests from the JavaFX Script platform
- Learn how to parse XML and JSON
- Use these JavaFX Script technology-based APIs in desktop and mobile applications

TS-3941 Getting Serious About Build Automation: Using Maven in the Real World

John Smart, Wakaleo Consulting Ltd

CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Advanced*

Maven 2 is becoming increasingly popular in larger organizations looking to standardize and industrialize their build processes as well as in smaller shops simply trying to get more out of their builds. This session, for developers wanting to learn about Maven and Maven users wanting to get more out of their build tool, covers the main features and benefits of Maven and then looks at some of the more advanced uses of Maven in the real world, including complex transitive dependency management, dependency conflicts, multimodule projects, and integration with other build systems. It also looks at how the m2eclipse plug-in can be used to improve the Maven user experience and how to use the Nexus repository manager with the Maven release process to publish your APIs within your organization.

This session will help you

- Understand how Maven 2 can help improve your build process
- Understand how to organize complex projects by using Maven modules
- Understand how to manage transitive dependencies with Maven
- Understand how to use the Nexus repository server to publish your internal APIs

TS-3966 Using REST and WS-* Together for SOA

Mark Little, JBoss Inc.

SERVICES: SOA Platform and Middleware Services | *Advanced*

In recent years, REST-versus-WS-* debates have raged, as advocates from both camps paint a black-or-white picture of systems development using only one or the other approach. With the exception of SOAP and HTTP, WS-* ignores REST and owes much of its architecture to distributed systems such as CORBA and Java™ 2 Platform, Enterprise Edition (J2EE™ platform). The perceived lack of enterprise capabilities plus issues such as the broken-link problem make it easy for people to persuade themselves that the Web is only an infrastructure for documents. But there are important things that both sides can learn from one another as well as from work that occurred before the advent of the Web.

Architects and engineers, as well as those who simply want to know which approach they should take for SOA, will benefit from this presentation.

In the session,

- The speakers debunk the REST/WS-* debate
- You'll learn the pros and cons of REST/HTTP and WS-*, particularly as they apply to SOA
- You'll leran where each approach applies
- You'll learn where the future of REST and WS-* lies

TS-3968 JavaFX™ Programming Language + Groovy = Beauty + Productivity

Dierk König, Canoo Engineering AG

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Advanced*

The JavaFX™ programming language is the ideal choice for creating beautiful user interfaces. Groovy is the dynamic language for the Java™ platform that enables you to leverage the stunning new GUI capabilities for your Java technology-based projects.

This session is for experienced Java technology practitioners who want to see live demos of how to use these new technologies in their everyday work.

In the session, you will see
- A practitioner's introduction to the JavaFX programming language and Groovy
- Demos of cool JavaFX technology-based features
- Real-world data binding
- Descriptions of leading technology pioneers' experiences

TS-3977 Keeping a Relational Perspective for Optimizing the Java™ Persistence API (JPA)

Debu Panda, Oracle Corporation
Reza Rahman, Cognicellence

CORE TECHNOLOGY: Java EE Technology | *Advanced*

It is easy to overlook the relational database while working with the Java™ Persistence API (JPA), because it hides a lot of low-level persistence code. In reality, keeping an eye on relational database optimization concerns can help achieve maximum performance from JPA while keeping your persistence code agile. This session outlines strategies for tuning relational databases for JPA as well as adjusting JPA to best use relational databases.

The session covers several optimization techniques gleaned from practical applications, including doing optimal schema design, refactoring tables, doing effective indexing, fully utilizing database features, adjusting the domain model, making the right mapping choices, tweaking fetching strategies, utilizing native queries, tuning Java Persistence Query Language (JPQL), and reducing database load by caching. The session assumes intermediate knowledge of relational databases, SQL, and JPA.

TS-3989 JSR 290: Empower Web User Interfaces for Mobile Java™ Technology

Jean-Yves Bitterlich, Sun Microsystems, Inc.
Petr Panteleyev, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

Imagine building dynamic and transient Java™ Platform, Micro Edition (Java ME platform) technology-based user interfaces using known Web technologies such as XHTML, SVG, and ECMAScript; featuring DOM-based communication between the ECMAScript and Java technology-based runtimes; and accessing all Java ME technology-based, attractive, feature-oriented APIs such as camera, location, networking, audio/video, PIM, and telephony.

The Java Language & XML User Interface Markup Integration API (JSR 290) enables the creation of Java ME technology-based applications that combine the ease of authoring and graphical richness of Web UI technologies (driven by W3C CDF with XHTML Basic and SVG Tiny) with the power, flexibility, and breadth of the Java ME platform.

This session dives into the API, demoing many use cases as well as JSR 290-related development processes and tools — opening up a whole new and innovative development paradigm for Java ME technology.

TS-3993 Swing for Real-Time Trading Systems

Victor Glava, Optionscity
Freddy Guime, Optionscity

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session covers the challenges of making Swing performant enough for real-time trading data. The CBOT (Chicago Board of Trade), CME (Chicago Mercantile Exchange), and CBOE (Chicago Board of Exchange) pump gigabytes of data every second, and traders want to see every bit of it. Imagine having ten 500 X 500 JTables, with each and every one of them having to not just be updated but also decorated in real time with colors, filtering, and conditionals.

TS-4005 The Web on OSGi: Here's How

Don Brown, Atlassian

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Advanced*

Enterprise Web applications tend to grow like weeds in monolithic complexity. OSGi, although more often associated with Java™ technology-based clients and application servers, can bring a new level of modularity, uptime, and stability that is needed with today's always-on hosted Web applications. OSGi gets really interesting when the pretty architecture diagrams meet the real world, because it consists of various deployment platforms, development environments, and application architectures. This presentation, for Java 2 Platform, Enterprise Edition (J2EE™ platform)-savvy architects and senior developers, provides a practical guide to the Web on OSGi, from integration approach to bundle development, to real-world code you can use today.

The session discusses
- What benefits OSGi brings to the J2EE platform
- Three integration strategies
- How to use Spring DM and Maven to ease development
- Lessons learned from Atlassian's recent OSGi deployment
- A production-ready example to use immediately

TS-4010 Duke's Dancing Partner: Connecting Handheld Game Consoles with Java&trade Technology

Chuk-Munn Lee, Sun Microsystems, Inc.
Max Mu, Sun Microsystems, Inc.

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Advanced*

The phoneME™ Feature project (https://phoneme.dev.java.net/content/phoneme_platforms.html#phonemefeature) is Sun's open-source implementation of the CLDC/MIDP platform. phoneME Feature software, PSPKVM and doublevision, has been ported to popular game consoles. PSPKVM (http://www.pspkvm.org) is a port to the PlayStation Portable, and doublevision (http://doublevision.sourceforge.net/) is for the Nintendo DS.

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* Content subject to change.

This presentation shows you how game devolopers can develop multiplayer online games with Java™ Platform, Micro Edition (Java ME platform) and deploy them on these popular handheld game consoles. Due to the various differences in these gaming platforms, playing multiplayer games between these popular console brands has been impossible and porting efforts can be time-consuming and costly. However, by leveraging the Java ME platform, we can, for the first time, enable game developers to develop games for these game consoles without significant porting effort.

The session includes a demonstration of a simple multiplayer Java technology-based game running on PSP and NDS with Project Darkstar (http://www.projectdarkstar.com) as the game server. It also shows how to create the Darkstar game artifacts with the NetBeans&trade IDE.

This session is for attendees who are interested in developing multiplayer Java ME technology-based games for handheld game consoles and the Darkstar game server or in learning about porting phoneME Feature software to a new platform.

TS-4012 Pragmatic Identity 2.0: Simple, Open, Identity Services Using REST

Pat Patterson, Sun Microsystems, Inc.
Ron Ten-Hove, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

According to Gartner Group, software as a service (SaaS) is forecast to have a compound annual growth rate of more than 20% through 2011 for the aggregate enterprise application software markets, more than double the growth rate for total enterprise software. Traditional enterprise applications are evolving toward cloud computing, and SaaS applications such as Google Apps, Facebook, Dopplr, and Twitter are slowly becoming core services leveraged by enterprises.

A common challenge for developers is to find an easy way to invoke common identity services using a resource-oriented architecture (ROA)/representational state transfer (REST) across their traditional infrastructure, hosted services, and SaaS services in the cloud. This session explains how developers can use Sun's open-source identity stack to build RESTful identity services into developer applications. There is no longer a need to build homegrown security. Using tools such as the NetBeans™ IDE, Eclipse, or Microsoft Visual Studio, developers will learn how to leverage a common identity model, regardless of the programmatic language — the Java™ programming language, PHP, Ruby, .NET, and the like.

The session includes
- Overview of identity services
- Information on deploying Sun's open-source identity stack
- Demo 1: Implementing user management and registration for a social networking application
- Demo 2: Implementing fine-grained authorization for a social networking application

TS-4060 Small Language Changes in JDK™ Release 7

Joseph Darcy, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Come to this session to hear about the small Java™ programming language changes coming in JDK™ release 7.

TS-4062 Building Enterprise Java™ Technology-Based Web Apps with Google Open-Source Technology

Dhanji Prasanna, Google, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Introductory*

Google open-source technologies bring a new perspective to enterprise Web applications. The company likes simple stuff that's easy to maintain and that works and scales REALLY well. It also believes that the Java™ platform is strong and thriving and can be as lightweight and competitive as other popular dynamic platforms. With the right approach.

This session explores how you can take away the pain of traditional enterprise development with Googley alternatives in your stack. Use Google Guice, the Google Web Toolkit, and SiteBricks to completely rethink how you write applications. These technologies all employ idiomatic Java programming language — but in highly productive, novel ways — and have produced enormous success in some of the largest and most complex applications ever built.

Take the simple back! The Googley way.

TS-4069 JavaFX™ Technology in Action: From Design Tool to Desktop, to Mobile Device

Mike Mannion, Canoo Engineering AG

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

In this session — for graphic designers, Java™ (client) technology developers, and product and project managers — discover how, in a matter of weeks, a fun multimedia application was designed by graphical user interface professionals, converted to a running desktop application, and finally migrated to a mobile device.

The key tools used to achieve this were Adobe Photoshop, JavaFX™ Production Suite, JavaFX Script software, and the JavaFX Mobile API. The speaker, an experienced software engineer, describes his experiences with using these tools, highlights the obstacles encountered (and how they were overcome), and outlines his wish list for the future of these technologies.

In this session
- Graphic designers will obtain insight concerning their specific role in the development of JavaFX technology-based applications, specifically in the use of Adobe Photoshop/ Illustrator and the JavaFX Production Suite
- Java technology developers will obtain insight concerning their specific role in the development of JavaFX technology-based applications, particularly in the use of the NetBeans™ 6.5 IDE and JavaFX technology-based tools.
- Product and project managers will obtain insight concerning JavaFX technology development process prerequisites and opportunities.

TS-4086 Visual JavaFX™ Technology-Based Design with JFXBuilder

Josh Doenias, ReportMill Software
Jeff Martin, ReportMill Software, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

Some people say the best line of code is the one you don't have to write. But the most fun line of code is the one you get to draw. This session introduces the world's first JavaFX™ technology-based visual design tool, JFXBuilder. It lets you draw JavaFX code in minutes that would take hours or days to code by hand. And the best part: JFXBuilder is free!

The session demonstrates how to
- Perform drawing and illustration
- Add and edit rich text (fonts, colors, styles, wrapping, spelling, etc.)
- Apply advanced fills (textures and gradients)
- Apply advanced effects (shadow, reflection, emboss, glow, etc.)
- Apply advanced transforms (rotation, scale, skew)
- Drag and drop images and other media
- Drag and drop application components
- Apply key-frame-based animation
- Apply path-based animation
- Apply input-related behavior (mouse-over, mouse-down, etc.)
- Attach to a database or XML and perform data binding
- Design simple layouts for default JavaFX Mobile technology-based devices
- Show on-the-fly JavaFX code generation

Finally, the presentation shows "one-click applet deployment," which makes it possible to publish a JavaFX technology-based application to the Web with the push of a button.

TS-4118 Practical Lessons in Memory Analysis

Andrew Johnson, IBM United Kingdom Limited
Krum Tsvetkov, SAP AG

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Memory leaks? Sporadic crashes with an OutOfMemoryError? Exhausted permanent generation? High memory footprint? Have you experienced them already? If you're still reading, the answer is probably "yes" and you're probably searching for an easy way to cope with them. This technical, practical session for you!

The session, based on live demos, presents how to analyze some of the most critical and common memory-related problems with the help of the Memory Analyzer tool. For each of the selected issues, the presentation includes
- An introduction to the problem — what is stored in the permanent generation and how it can be exhausted
- Hints for effective analysis — how to extract semantic information for a thread by inspecting its local variables
- A demo showing and explaining the troubleshooting process — how to find the biggest objects, and why they are kept alive
- A suggestion on how the analysis of the problem can be automated and thereby significantly simplified and accelerated

Memory Analyzer is an open-source tool (www.eclipse.org/mat) and was shown at the past two years' JavaOne℠ conferences. One of the new features unique to the tool is that it can work not only with HPROF heap dumps from the Java™ HotSpot technology-based family of JVM™ machines but also with system dumps from various IBM JVM machines. So you can apply the new analysis techniques you learn in the session to investigate problems on a wide range of platforms.

TS-4125 Introducing Mobile Java™ Technology-Based Widget Development

Yoav Barel, Sun Microsystems, Inc.
Ariel Levin, Sun Microsystems, Inc.

MOBILITY | *Introductory*

Although the Java™ Platform, Micro Edition (Java ME platform) has developed significantly over the past years, there is still no vehicle enabling the rapid development and deployment of mobile Java technology-based widgets to devices' forefront while providing a compelling user experience.

There have been numerous attempts to solve this problem, frequently using a proprietary markup language that requires developers to acquire additional technical expertise.

Sun's Java On Device Portal (Java ODP) was developed to address these issues. Java ODP provides a platform that enables developers to easily create mobile Java technology-based widgets and deploy them to devices' forefront. By leveraging the Lightweight User Interface Toolkit (LWUIT), Java ODP provides a rich, compelling user interface while reducing the time and effort for creating new Java technology-based widgets.

This session introduces Java ODP and demonstrates how developers can leverage their Java ME platform expertise to quickly and easily develop mobile Java technology-based widgets from scratch or from existing MIDlets. The session is for developers and nondevelopers interested in learning about Java ODP and leveraging it to get mobile Java technology-based widgets to consumers.

TS-4136 Java™ Platform, Micro Edition (Java ME Platform) Myth Busters

Marlon Luz, Nokia Institute of Technology
Bruno Oliveira, Santander

MOBILITY | *Introductory*

In the current technology scenario, the world converges on mobile devices and we know that the everyday financial applications and biomedical and real-time systems are designed for mobile devices. The complexity in the development of rich and portable mobile applications is in the hands and knowledge of the developers, not the API, as on any platform.

This technical session aims to break some paradigms created on Java™ Platform, Micro Edition (Java ME platform), myths created by many developers sometimes knowledgeable about the Java programming language but little accustomed to working in a restricted environment, creating a general vision of and a wrong perspective on the platform from their own bad experiences. The presentation shows the common myths among most IT professionals and tries to bust them, making an allusion to the famous American "MythBusters" TV program.

Key points of this technical session:
- The current mobile scenario: where we are, where we go
- Explanation of technology in multiple limited environments, the Java ME platform is not just for games but also for your refrigerator

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- Developing graphical interfaces: lazy programmers develop poor software
- A limited environment is not limited architecture and not to restrict your mind too

TS-4142 JavaFX™ Technology + JSAPI2 = VoiceFX: Add Voice Recognition to Your JavaFX Applications

Eric Smith, Burning Sun Enterprises

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

In this session, learn how to expand the user interface capabilities of your JavaFX™ application beyond graphics, keyboard, and mouse by using the Java™ Speech API (JSAPI2). The presentation takes you step-by-step through the development of a simple JavaFX application and how to incorporate voice recognition and synthesis to provide a voice-enabled JavaFX application.

The intended audience is conference attendees with an interest in JavaFX technology or voice recognition and a desire to learn how to use one or more of these exciting technologies.

This fun and exciting session covers
- Developing in the JavaFX programming language
- Using the declarative language to incorporate Java technology classes
- Integration with JSAPI2
- Adding voice synthesis to JavaFX applications

TS-4143 Flamingo: Bringing the Ribbon Component to Swing

Kirill Grouchnikov, Amdocs

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Introduced in Microsoft Office 2007, the ribbon component replaces the traditional menu bars and tool bars, aiming to consolidate the program's functions and commands in one place. Targeting mainly large programs with hundreds and thousands of commands, it greatly aids the discoverability of existing features and provides time-saving features such as live preview on ribbon galleries.

Many third-party vendors in the .NET, C#, and Delphi ecosystems have provided complete implementations for certain applications, and Windows 7 will take the ribbon a step further. It will be available for MFC, WPF, and Win32 developers, and some programs bundled with Windows have been rewritten to use ribbon.

The goal of the Flamingo project is to bring a feature-complete ribbon component to Swing applications. Supporting all existing core and third-party look-and-feels, it also provides extension points for interested parties to further fine-tune the visuals.

Among the many features the Flamingo ribbon component supports:
- Application menu button
- Task bar panel
- Contextual task groups
- Extended pop-ups that can host button panels, menu buttons, and more
- Rich tool tips
- Key tips
- Pluggable resizability policies
- Support for shrinking and scrolling
- Hooks for placing content on the decorated title pane

Come to this session to see the Flamingo ribbon component in action and learn how you can bring order and discoverability to your UIs.

TS-4144 Dynamic Voice Recognition Grammar Using JSAPI2: Recognizing What You Don't Program

Eric Smith, Burning Sun Enterprises

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

JSAPI2 provides capabilities for extending a recognition grammar on the fly. Using step-by-step examples and a simple Java™ technology-based program, this session shows how to extend your JSAIP2 voice recognition grammar and how to put the grammar to use immediately within your programs.

The presentation is aimed at attendees with an interest in voice recognition and simplifying user interfaces and a desire to learn how to use one or more of these exciting technologies.

This fun and exciting session demonstrates
- What grammar rules are and how we use them
- Developing a simple JSAPI2 grammar
- Dynamically creating and adding grammar rules
- Using JSAPI2 to affect the user interface

TS-4164 Clojure: Dynamic Functional Programming for the JVM™ Machine

Rich Hickey, Clojure

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Introductory*

Tempted by the succinctness, flexibility, and productivity of dynamic languages? Have concerns about running on your infrastructure, accessing your existing libraries, and performance? Struggling with concurrency using native threads and locking and wondering how you'll leverage multicore? This presentation introduces Clojure, a dynamic programming language for the JVM™ machine that's as simple and succinct as Python and Ruby but oriented toward making programs that are robust, fast, and concurrency-aware.

Attendees should be experienced developers ready to improve their programs with disruptive technology.

The session covers the following:
- Reliable programming with immutable data structures — lose the statefulness!
- Fundamentals of functional programming — lose the loops!
- Handling pf concurrency with transactions and agents — lose the locks!
- The power of macros — lose the repetition!
- Seamless interoperability — keep your Java™ technology investment!

TS-4166 Object-Oriented Ant Scripts for the Enterprise

Douglas Bullard, Nike, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Ant build scripts are an integral part of building and deploying many Java™ technology-based applications, but they're often custom-built for each project and vary across the enterprise. This

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presentation shows how Nike, Inc., reduced its build scripts to almost nothing while preserving the functionality needed to do customized builds for everything from small standalone apps to large enterprise projects.

This topic will be of interest to developers who develop and maintain build scripts for multiple applications and need ways to minimize the amount of time and new scripts they need to write.

The session covers
- How to write Ant scripts in an object-oriented paradigm, including inheritance, extending, and overriding
- How to make most application build scripts 10 lines or fewer
- How to unit-test build scripts
- How to version build scripts

TS-4170 Experiences with 2-D and 3-D Mathematical Plots on the Java™ Platform

David Clayworth

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Maple is a leading cross-platform symbolic calculation engine used worldwide by mathematicians, educators, and engineers. The user interface client is written almost entirely in the Java™ programming language, consisting of several hundred thousand lines of Java code. This session describes from a practical viewpoint a project to rewrite packages for plotting 2-D and 3-D graphs, using the Java 2D™ API and Java OpenGL (JOGL).

The 2-D part describes the architectural approach used; ways to maximize the accuracy and smoothness of the plots; and some techniques for improving rendering speed, specifically with a quadtree approach. It also covers differences between rendering on the Windows and Mac platforms. The 3-D part discusses issues encountered with JOGL installations on different platforms, mixing mathematical symbols into 3-D plotting, and how to overcome some limitations of JOGL for plotting many graphs simultaneously.

The session is aimed at Java technology programmers who want to develop tools for graphical rendering of scientific, mathematical, or engineering data.

The session provides
- A proven approach to developing 2-D and 3-D scientific charting and plotting on the Java platform
- Practical tips for improving the look and performance of Java 2D API scientific plotting
- Techniques for adding 2-D images to 3-D charts by use of JOGL

TS-4182 Blink: Making the World More Accessible, One Blink at a Time

Telly Stroumbis, Boeing

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

The Blink system is a free Java™ technology-based application providing augmentative and alternative communication (AAC) and device control for people with severe disabilities. It is a Java™ technology-based systems integration effort built on Swing. It leverages an embedded Java DB for text prediction, the Java Speech API for text-to-speech capabilities, and the JavaMail™ API for sending email and SMS text messages and provides device control for X10-, INSTEON-, and IR-controlled devices.

This session is intended for an intermediate to advanced audience with a basic understanding of Java technology and Swing.

Key points of the presentation:
- Applying Swing hacks to a real-world application
- Predictive text using an embedded Java DB
- Providing text-to-speech by using the Java Speech API
- Device control using X10, INSTEON, and IR technologies

TS-4208 The Galilean Moons of Eclipse

Wayne Beaton, Eclipse
Bjorn Freeman-Benson, Eclipse Foundation

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Introductory*

Eclipse comes out with a new simultaneous release and code name every year. Callisto in 2006, Europa in 2007, and Ganymede in 2008. This year the Eclipse release train takes a break from the moons of Jupiter and gives their discoverer, Galileo Galilei, a turn. More than 30 Eclipse projects are releasing on June 24, 2009, as part of the Eclipse Galileo release train.

What can you do with Eclipse's increasingly powerful tools and frameworks• This presentation starts with a brief outline of the new and noteworthy features of longtime participants (including stalwarts such as the Eclipse Project, EMF, and CDT) and then introduces some of this year's new additions (including PHP development tools, EclipseLink, Riena, and Swordfish). A live demonstration shows Eclipse runtime technology in action.

The presentation makes the safe assumption that the attendees are already familiar with the basics of Eclipse: that it's a Java™ integrated development environment; that it's a framework for building IDEs; that it's a framework for tool integration; and that it's a great platform for rich component-based applications on devices, clients, and servers.

TS-4213 Securing Web and Service-Oriented Architectures with Apache Axis, WSS4J, Spring, and OpenLDAP

Shawn McKinney, Fidelity National Info Svcs

SERVICES: SOA Platform and Middleware Services | *Advanced*

The risk and cost of securing SOA applications can be reduced significantly by use of open-source tools and standard technologies. The tools and technologies this session covers are widely used in the financial services industry. This technical session shows how others can use products from Apache, Spring, and OpenLDAP to provide a secure, cost-effective, and working security solution for their own SOA and Web application deployments.

It provide attendees an outline they can use in designing future SOA security systems that will be capable of running on various application server platforms, both commercial and open-source. These security concepts will not be confusing, because they are neither complex nor bleeding-edge. The session covers these technology solutions because they all have proven value within high-volume production environments yet are safe and relatively easy to implement. These tips have the potential to provide real cost savings via use of several stable and proven third-party open-source libraries.

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The presentation includes the following security topics:
- Authentication and identity management
- Authorization
- Message integrity and confidentiality
- Audit trail

The session is for project managers, technical managers, engineers, developers, and architects who are looking for low-cost options for implementing standard security technologies that are both safe and secure to use within SOA deployments.

TS-4215 What's New in Groovy 1.6?

Guillaume Laforge, SpringSource

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Groovy is a dynamic language for the JVM&trade: machine, providing modern features to Java™ technology developers, in that it offers the best integration with the Java platform and language available up to now. In this session, you will learn step by step how Groovy can help you in your daily Java technology development and how you will still be able to tell your boss you are working with Java technology, and you will also discover all the cool new and useful features the new Groovy 1.6 release provides.

The presentation shows how Groovy works on its own and how it can interact with usual Java code. It covers the major Groovy-isms you should be aware of when coming to Groovy from a Java programming language background and provides a high-level overview of all the Groovy syntax constructs and Groovy's specific features and APIs for simplifying the life of enterprise Java technology developers.

Also, with the recent release of Groovy 1.6, new features have seen the light of day, and this session covers the novelties in this new version: multiple assignments, Swing support improvements, metaprogramming additions, abstract syntax tree transformations, and more.

TS-4222 Asynchronous I/O Tricks and Tips

Jean-François Arcand, Sun Microsystems, Inc.
Alan Bateman, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Writing scalable, high-volume-traffic network server applications in the Java™ programming language has always been difficult. The advent of new I/O (NIO) greatly improved the way powerful, scalable applications could be written with the Java programming language. With JDK™ release 7, a new I/O paradigm called asynchronous I/O (JSR 203) has been added. In short, asynchronous I/O gives you a notification when the I/O is complete. The big difference between AIO and NIO is that with AIO you get a notification when the I/O operation is complete, whereas with NIO you are notified when the I/O operation is ready to be completed.

The asynchronous I/O API supports the development of event-driven applications that use the Proactor pattern. It integrates the demultiplexing of I/O and completion events with dispatching to application-provided handlers that consume the result of I/O operations. In brief, an application initiates an I/O operation and specifies a completion handler that is invoked when the I/O is complete. This session contrasts this with the existing API that supports the development of event-driven applications that use the Reactor pattern. With the existing API, a selector is used to multiplex channels to receive events when the channel is ready for I/O.

The session presents lessons learned in implementing a highly scalable AIO-based server and describes how AIO was implemented inside the Project Grizzly framework.

TS-4230 Enterprise Build and Test in the Cloud

Carlos Sanchez, Exist

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Introductory*

Building and testing software can be a time- and resource-consuming task. Cloud computing/on-demand services such as Amazon EC2 provide a cost-effective way to scale applications and, for building and testing software, can reduce the time needed to find and correct problems, meaning a cost reduction as well.

Properly configuring your build tools (Maven, Ant,...), continuous integration servers (Continuum, Cruise Control,...), and testing tools (TestNG, Selenium,...) can enable you to run all the building/testing process in a cloud environment, simulating high-load environments, distributing long-running tests to reduce their execution time, using different environments for client or server applications, and so on — and in the case of on-demand services such as Amazon EC2, pay only for the time you use it.

In this presentation we will introduce a development process and architecture using popular open source tools for the build and test process such as Apache Maven or Ant for building, Apache Continuum as continuous integration server, TestNG and Selenium for testing, and how to configure them to achieve the best results and performance in several typical use cases (long running testing processes, different client platforms,...) by using he Amazon Elastic Computing Cloud EC2, and therefore reducing time and costs compared to other solutions.

TS-4238 HtmlUnit: An Efficient Approach to Testing Web Applications

Ahmed Ashour, Zain KSA
Daniel Gredler, DHL Global Mail

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Introductory*

Top-to-bottom integration testing is a critical step in ensuring Web application quality. HtmlUnit is an open-source Java™ technology-based headless browser that provides an efficient means of automating these integration tests. Unlike most other tools in this area, HtmlUnit simulates a browser rather than driving a "real" browser and is capable of emulating the behavior of Firefox or Microsoft Internet Explorer for a very large number of Web applications: from simple old-fashioned pre-AJAX applications all the way to complex Web 2.0 apps.

HtmlUnit's approach provides obvious benefits in areas such as ease of deployment, performance, scalability, and AJAX testing but also has some limitations. In this session, project committers

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Daniel Gredler and Ahmed Ashour provide a detailed overview of the library; explain how to get the most out of the HtmlUnit approach; and show why, in many cases, it is far more efficient than working with a "real" browser to ensure the quality of your Web apps.

The session is for Java technology developers who need to write top-to-bottom integration tests for their Web applications.

Attendees will learn about
- The two approaches to Web app integration testing: browser simulation and browser driving
- The cons of the browser simulation approach
- The pros of the browser simulation approach
- Key extension points provided by HtmlUnit
- Wrappers that enable you to hedge your bets and switch between the two approaches

TS-4247 Getting More Out of the Java™ VisualVM Tool

Geertjan Wielenga, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

The Java™ VisualVM tool is now part of JDK™ software. Many developers have taken it for a spin and are aware of its main features. It is an all-in-one troubleshooting and diagnostics tool that bundles the functionality of many of the small applications in the JDK software into one modern-looking visual application. Thread dumps, heap dumps, threading, bottlenecks, and more can be pinpointed, and the tool enables you to jump into your source code and analyze the problems identified.

At this point, though, it makes sense to introduce developers to the simple ways in which the Java VisualVM tool can be extended. This session addresses the following topics:
- Leveraging existing JConsole plug-ins
- Creating new plug-ins for specific applications such as application servers
- Creating new plug-ins for specific tasks that are not supported out of the box

At the end of the session, the audience will have a thorough overview of the main APIs that VisualVM makes available and will have seen them in action. They will have been given pointers to the many resources that are available to support them further.

TS-4308 Architecting Robust Applications for Amazon EC2

Chris Richardson, Chris Richardson Consulting

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The Amazon Elastic Compute Cloud (EC2) is a virtualized computing environment in which you rapidly provision and manage servers via a Web services API. It is ideally suited to running Java™ technology-based applications, because it enables you to develop applications by using standard software packages such as the GlassFish™ application server and the MySQL™ database. However, because it is a cloud, some aspects of EC2 are very different from those of a traditional physical computing environment, which has an impact on how you handle security, networking, storage, and availability.

In this session, for senior Java™ technology developers and architects, you will learn
- How to use EC2 and the other Amazon Web services to develop and deploy Java Platform, Enterprise Edition (Java EE platform) technology-based applications
- How to significantly simplify common administrative tasks such as upgrades
- How to design highly available applications with EC2 availability zones
- How to architect secure applications for Amazon EC2

TS-4333 Programming Music for Fun and Productivity: JFugue and Log4JFugue

David Koelle, Charles River Analytics Inc.
Brian Tarbox, Wabi Sabi Software

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

Would you like to create Java™ technology-based programs that play or create music but don't know where to begin? Come to this session to learn all about JFugue, an open-souce API that enables you to program music with ease. With its simple but powerful API, new UI components, and cool features, JFugue promotes creative music programming and exploration. For example, what if you could listen to what your application has been trying to say to you? Learn about Log4JFugue, which combines the power of Log4J and JFugue to turn your application's logging into a real-time song. By listening to your application, your pattern-matching brain can detect subtle changes in behavior that would normally be lost in a sea of log messages.

The intended audience for this technical session is developers at any level who are interested in writing musical programs or who would like to use more parts of their brain to increase their productivity.

In the session
- Learn how to get and use JFugue
- Learn about some advanced and exciting features of JFugue, including new ones
- Learn about Log4JFugue for turning your log files into songs

TS-4351 Building Facebook and OpenSocial Applications with Java™ Technology

Richard Pack, Hyperic, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Introductory*

Facebook and OpenSocial APIs have forged a path for a new type of Web application: one that harnesses the power of the social graph. This game-changing computing paradigm ushers in a new opportunity to exploit this new frontier of viral computing.

The leaders of enterprise Web businesses have been dominated by Java™ technology-based applications. Java technology developers are renowned for building relevant, reliable, enterprise-grade applications that run successful businesses. Yet enterprises experienced in delivering the most-successful, reliable, and scalable Java technology-based Web applications of today have yet to set foot in this new landscape.

The challenge is to demystify the architecture and demonstrate the usefulness of these social APIs, create a common API interface/object model on the Java platform, and provide a

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clear path for the new development and migration of these applications for the new social platforms. In this session, which presents real-word examples, learn how both new and existing Java technology-based applications can easily harness the power of social networks.

TS-4363 Extreme Swing Debugging: The Fast and the Furious

Alexander Potochkin, Sun Microsystems, Inc.
Maxim Zakharenkov, Exigen, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Introductory*

This presentation is a practical guide to simple and fast debugging of Swing applications with the Swing Explorer tool. It may be useful for novices and experienced developers.

Imagine you have a bunch of Swing UI code implemented by a former colleague a couple of months ago. Now your boss says you have to fix some bugs as soon as possible. How to start? How to understand this mess? How to find which component on the screen corresponds to which variable in this badly commented code? Debugging a Swing application is not always easy, because Swing is a visual toolkit and, in many cases, you cannot just write an automated test that checks whether your user interface looks good, all components are of the right sizes, all necessary information is visible, and painting is done correctly. This presentation covers some common difficulties related to the visual nature of the Swing toolkit and provides fast solutions for solving them with the Swing Explorer tool.

You will learn how to answer the following questions:
- Which component painted this pixel? In which line of code?
- Where is a particular component created? In which line of code?
- Does your application access Swing from the correct thread?
- How does Swing perform painting step by step?
- Even more . . .

TS-4374 XSS-Proofing Your Java™ EE, JavaServer Pages™, and JavaServer™ Faces Applications

Jeff Williams, Aspect Security

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

Cross-site scripting (XSS) allows a complete takeover of the victim's Web browser and has overtaken the buffer overflow as the most prevalent application security problem. More than 70% of Java™ technology-based Web applications still have XSS issues. This session — for Java Platform, Enterprise Edition (Java EE platform) developers and architects, particularly those focusing on the presentation layer — explores all the different browser contexts in which XSS is possible, including HTML attributes, style blocks, URLs, event handlers, and more. Each of these contexts has a different escaping/encoding syntax that must be followed to prevent XSS attacks. The presentation provides a framework for using escaping to truly make XSS impossible and also demonstrates a free Open Web Application Security Project (OWASP) tool for analyzing your current JavaServer Pages™ and JavaServer™ Faces technology-based libraries to evaluate their susceptibility to XSS attack.

In the session, you will learn
- How real-world XSS attacks work
- Why input validation is only a partial defense
- How to properly escape/encode output for all the browser contexts
- How to integrate escaping/encoding into your framework
- How to analyze component libraries for XSS vulnerability

TS-4381 Deploying Java™ Technology to The Masses: How Sun Deploys The JavaFX™ Runtime

Craig Newell, Sun Microsystems, Inc.
Thomas Ng, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

How did the JavaFX™ technology group apply the Java™ deployment technologies on the client and the server to enable the use of browser- and desktop-based applications using the JavaFX runtime by 100 million users? This presentation covers the use of Java Web Start software, Java Deployment Toolkit, Java Plugin software, JNLPAppletLauncher, pack200, and the JNLPDownloadServlet, along with a content distribution network.

The session is for Java technology-based content providers wanting to efficiently deploy Java Network Launch Protocol (JNLP) applications, applets, or extensions and for those needing to scale such deployments to large customer bases.

The session discusses the problems encountered by the JavaFX technology team and solutions it found for scaling such deployments to hundreds of millions of users.

TS-4388 Distributing JavaFX™ Applications with Java™ Web Start Software/Maven Repository Manager

Yoav Landman, JFrog Ltd.
Frederic Simon, JFrog Ltd.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

Creating a modular JavaFX™ application with Maven is easier today than ever. Deploying and distributing your final application via Java™ Web Start software to all potential users is, however, still a complicated and delicate process that requires careful crafting of deployment metadata.

This session shows how the speakers managed to leverage Maven, Java Web Start software, and their Maven Repository Manager (Artifactory) to streamline the transition from development to distribution and optimize the end-user experience with Java Web Start software-enabled JavaFX applications.

Their setup
- Relieves developers from managing Java Network Launch Protocol (JNLP) files and module extensions, by dynamically generating this data
- Offers centralized control over on-the-fly JAR signing
- Provides instant feedback on JavaFX (JNLP) applications usage statistics
- Provides the ability to redeploy and REUSE submodules common to many JavaFX applications.
- Improves the overall experience for end users by optimizing the download process and avoiding local duplication of JARs.

TS-4389 Enhancing the Role of a Federal Agency as a Service Broker via a Service Registry: A Case Study

Walt Melo, MDS

SERVICES: SOA Platform and Middleware Services | *Advanced*

This session presents a case study conducted in a large U.S. federal agency where a service registry was used to enhance the agency's role as a reliable intermediary in the federal supply chain. First it describes the environment in which this study was conducted, and then it discusses the main drivers, the outstanding challenges (technical and nontechnical), and the benefits a service registry has for inter- and intragovernmental business operations. It also covers how government policies are published, discovered, and enforced among partners in the federal supply chain ecosystem by leveraging of this service registry.

The presentation also demonstrates how the OMB Federal Enterprise Architecture (FEA) Service Component Reference Model (SRM) was used for service classification, publication, reuse, and composition of federal supply chain services. It includes an analytical evaluation of open-source service registry products, including interoperability, and a service registry standard comparison. Finally, it discusses how SOA government and a higher level of SOA maturity can be achieved incrementally, highlighting lessons learned and outlining future work.

TS-4402 Metro Web Services Security Usage Scenarios

Harold Carr, Sun Microsystems, Inc.
Jiandong Guo, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

Metro is an advanced Web services stack. It provides transactions, reliable messaging, security, large attachment optimizations, and so on. The most used feature of Metro is security. It comprises streaming encryption/signatures, secure conversation, and trust — each with many options. To simplify security usage, Metro provides 13 security profiles that cover the most-used cases.

This session provides information on which profiles apply to which use cases and when to change the options for each profile from their default settings. It demonstrates information such as the following:

Choosing a profile according to the following criteria (including use cases):
- Type of security: transport or message level
- Type of client credentials: user name/password, X.509 certificate, SAML assertion, Kerberos ticket, or issued token from a third-party trust authority
- The role the client credential plays in securing the messages

It also presents an example profile of mutual certificates security:

Use case: Use when messages must pass through intermediaries and both sides have X.509 certificates (typical for service-to-service communication).

Options: If the message body is signed and encrypted, select "Encrypt Signature," because the signature contains a digest of the body that can be used to obtain information. Encrypting the signatures protects this information.

TS-4403 Creating Games with the Open-Source Multithreaded Game Engine (MTGame)

Doug Twilleager, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Advanced*

This session's speakers have created a new open-source game engine framework that utilizes the power of multi-CPU machines that is now common in many people's desktops and laptops. This engine, initially developed for Project Wonderland, can be used independently for creating games. The main difference between this engine and others is that it has multithreaded capabilities while still presenting a single-threaded programming model to developers. The engine supports JMonkey Engine graphics, model import via Collada, an event distribution system, a processor execution system, and a pluggable collision and physics system. The session presents the technical details of this game engine framework. It explores the complete game engine framework by using demos and code examples to present the details of each subsystem and concludes by putting all the systems together to build a simple game.

Beginning and experienced game developers who attend this session will gain new insights into the possibilities of using multi-CPU systems. Other developers who want to visualize 3-D content by using game techniques will also find this new framework interesting and useful.

Attendees of this session will get
- Details on an open-source game engine framework
- New methods for utilizing multi-CPU systems in real-time visualization
- Exposure to the latest 3-D graphics techniques
- To see some cool demos

TS-4407 Best Practices for Large-Scale Web Sites: Lessons from eBay

Randy Shoup, eBay, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

As one of the largest e-commerce sites in the world, eBay faces a unique set of scaling challenges. This session covers the architectural and operational best practices eBay has developed over time to grow and evolve its Java™ technology-based infrastructure to massive scale while maintaining a 24x7 environment. It covers the forces (or "-ilities") that large-scale systems need to contend with and design for: scalability, availability, manageability, and so on. It outlines a set of best practices that meet — and trade off — those forces in the real world, describes reusable patterns associated with each best practice, and follows with specific examples from the eBay infrastructure that illustrate the patterns in action.

This session is meant for intermediate and advanced developers, technical leads, and system architects.

What you will get from this session:
- A set of proven strategies and techniques for massively scaling a Web site
- Information on forces involved at massive scale and how to make explicit trade-offs among them
- Specific scaling patterns

TS-4408 Developing JavaServer™ Faces Applications for Mobile Device Browsers

Joe Huang, Oracle Corporation
Matthias Wessendorf, Oracle Corporation

MOBILITY • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

Rapid advancements in mobile browsers, such as iPhone Safari and BlackBerry Bold, present new challenges for mobile developers. It is desirable to leverage the AJAX capabilities in smart-phone browsers while maintaining compatibility with less capable mobile browsers. Mobile devices' vastly different processing power and network speeds introduce major variations in mobile Web performance. Each mobile device is optimized to support a particular UI navigation pattern — iPhone is optimized for finger navigation, whereas BlackBerry devices are optimized for track-wheel use. To deliver an easy-to-use and performant user interface, Web apps cannot simply render the same UI across all mobile browsers. JavaServer™ Faces technology enables any UI component to be rendered differently on various mobile device browsers, thus offering a framework that can meet the foregoing challenges.

This session discusses mobile browser rendering support in the MyFaces Trinidad JavaServer Faces components, where the same component can leverage AJAX and advanced processing/network capabilities in the smart-phone browsers while remaining compatible and performant on less capable, plain-HTML browsers. It also covers techniques for using MyFaces Trinidad components and style sheets to achieve a mobile-device-friendly UI for a variety of mobile devices, all within the same app. Last, it offers lessons learned during the development of a mobile device render kit in the MyFaces Trinidad project.

TS-4421 Simplifying Development and Testing of GUIs with the Swing Application Framework (JSR 296) and FEST

Michael Huettermann, Training & Consulting
Alex Ruiz, Oracle Corporation

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Developing applications in Swing usually involves solving common problems over and over again. Typical problems include managing application lifecycles, event handling, threading, and localization. Swing developers need an application framework that provides much of the common infrastructure that most applications need.

That's the mission of the Swing Application Framework (SAF), which aims to recognize common patterns and best practices to create Swing applications to enable developers to quickly create Swing applications.

Testing graphical user interfaces (GUIs) is as important as developing them. Unfortunately, GUI development has been slow to include automated testing as a core practice, mainly because writing tests for GUIs is hard. GUIs are complex pieces of software that need testing; otherwise, they can become a potential source of bugs.

This session provides an innovative open-source library, FEST, that facilitates functional Swing GUI testing. It uses the concept of fluent interfaces to provide a compact, intuitive, and easy-to-use API. FEST not only makes creation of GUI tests easy but also simplifies maintenance, by providing many useful features that can help in troubleshooting test failures.

After an introduction to the SAF, this session covers
- Common problems the SAF solves
- Introduction to FEST
- Writing robust and maintainable Swing GUI tests
- Creating an application with the SAF and FEST, using test-driven development (demo)

TS-4454 The Magic of the JXLayer Component

Alexander Potochkin, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

This session illustrates how easy it is to enhance your applications with various JXLayer extensions such as mouse auto-scrolling, lightweight disabling of compound components, the spotlight effect, and many others.

TS-4466 Move Your Users: Animation Principles for Great User Experiences

Romain Guy, Google, Inc.
Chet Haase, Adobe

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Traditional animators use several principles (such as the 12 rules developed in the classic "The Illusion of Life: Disney Animation" book) for animated films. This session discusses what we can learn from these principles when applying them to user interfaces to create the best user experiences possible.

The intended audience is developers of client applications who want to know more about how to creatively and effectively use proven animation techniques to create great user experiences.

TS-4475 Applying Complex Event Processing (CEP) with a Stateful Rules Engine for Real-Time Intelligence

Adam Mollenkopf, FedEx Custom Critical
Mark Proctor, Red Hat

SERVICES: SOA Platform and Middleware Services • Cool Stuff | *Introductory*

This session provides attendees with an understanding of
- What complex event processing (CEP) is
- Why CEP is important, particularly in the context of SOA
- How CEP processes Java Message Service event streams from a messaging bus
- The power of CEP when combined with stateful rules engines
- A real-world case study, including architecture review, code samples, and demonstrations
- How to get started and references on where to learn more

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* *Content subject to change.*

This session is appropriate for anyone new to CEP as well as those already familiar with CEP who want to see techniques that are profiled in the case study.

CEP adds another dimension of reasoning beyond what rules (inference) engines traditionally provide. The additional capabilities include detection of patterns; event correlation; event hierarchies; and relationships between events such as causality, membership, and timing. In this session, Adam Mollenkopf, strategic technologist at FedEx Custom Critical, and Mark Proctor, technical lead of the OSS Drools project, walk attendees through a practical case study of how CEP is being leveraged to assist decision management for complex logistics problems. Attend the session to see how CEP and stateful rules engine knowledge bases have been practically applied to increase real-time operational intelligence, including situational awareness, track and trace, sense and respond, and diagnostic drill-down into detected exception conditions.

TS-4476 SOA Deployment Challenges in the Real World

Sastry Malladi, eBay, Inc.

SERVICES: SOA Platform and Middleware Services | *Advanced*

Service-oriented architecture (SOA) concepts have been around for a while, and all the benefits and promises SOA offers are well understood. The complexity of implementing and deploying it in large enterprises is, however, typically underestimated. The problems are further exacerbated in efforts to migrate from existing monolithic Web applications and its infrastructure to a SOA model, rather than starting fresh from the ground up.

This presentation discusses some of the real challenges, technical as well as operational, in moving to the SOA model in a large enterprise. The session then covers how eBay is addressing some of these challenges by using approaches such as using a highly efficient, scalable and extensible SOA platform and an automated SOA governance process. It concludes with some key takeaway points to keep in mind when considering a SOA deployment.

This session is for architects and lead developers who are interested in hearing about the challenges in deploying SOA in large-scale enterprises and who want to learn how eBay is addressing some of them.

After this session, you will
- Understand the technical and operational challenges in large-scale SOA deployments
- Understand how eBay is addressing the technical challenges
- Understand how eBay is addressing the operational challenges
- Get some key takeaway points to consider when moving to SOA

TS-4487 The Feel of Scala

Bill Venners, Artima, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Scala is a new language for the Java™ platform that blends object-oriented and functional programming concepts. This session focuses on the design choices of Scala and what they mean for developer productivity. The presentation highlights what it means to program in a functional style and shows you how Scala facilitates a hybrid of functional and imperative programming styles. The session also explores how Scala compares to dynamic languages such as Ruby, Python, and Groovy. And you'll see examples of real production Scala code that illustrate what it feels like to program in Scala.

The session is for Java technology programmers who want to understand what Scala is all about.

You'll learn
- How alternative JVM™ machine-based languages can help manage complexity
- How Scala can be used to design libraries for which client code is concise, to the extent that it captures the essence of the programmer's intent, with no extra noise
- How Scala provides alternative, and more type-safe, ways to obtain many of the benefits attributed to more-dynamic languages on the JVM machine
- How Scala's compiler plug-in architecture make it possible to add constraints on code that can't be expressed in Scala's type system

TS-4506 Migrating Your Java™ Platform, Micro Edition Midlets to JavaFX™ Mobile Technology

Hinkmond Wong, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

JavaFX™ Mobile technology provides a new rich user experience for cell phones comparable to graphical user interfaces found on the Apple iPhone, Google Android, and other next-generation cell phones utilizing advanced graphics techniques such as transparency, animations, 3-D graphics, and swooping motions. By taking existing Java™ Platform, Micro Edition (Java ME platform) MIDlets, you can leverage the new JavaFX Rich User Experience environment by migrating to the new JavaFX Mobile platform without having to start from scratch.

TS-4514 Building Rich Internet Applications with the JavaFX™ Programming Language

Max Katz, Exadel

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The JavaFX™ programming language is a new open-source scripting language that runs inside the new, more lightweight but still familiar Java™ runtime environment. The JavaFX Script programming language enables developers to quickly and easily build rich Internet applications while utilizing the full power of Java technology. This session demonstrates how next-generation Web applications are built with the JavaFX programming language and connected to a Spring, a Seam, or just a JavaBeans™ architecture-based back end.

TS-4521 Interactive Applications Development for TV

Kobi Luz, Sun Microsystems, Inc.
Tamir Shabat, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

Developing interactive applications for TV set-top boxes, such as games or electronic program guides means various challenges: device constraints, high screen resolution, and supporting a variety of screen resolutions.

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The Java™ Media family of APIs for TV set-top boxes, based on the Connected Device Configuration (JSR 218), provides built-in solutions mitigating these challenges. It enables rapid development of compelling Java technology-bsed applications by providing rich sets of APIs such as the Personal Basis Profile (JSR 219), for games, and the Lightweight User Interface Toolkit (LWUIT), for other interactive applications. These are accompanied by an easy-to-use development tool.

To exploit all these Java Media Platform solutions, developers should follow a set of application development guidelines. This session reviews the challenges in developing interactive applications for TV and covers how to combine built-in solutions in the Java Media family of APIs with best practices for application development.

This session is for Java technology developers producing TV market content who have basic knowledge of the Java programming language and the Abstract Window Toolkit (AWT).

In the session, learn
- The challenges of developing TV interactive applications
- Solutions and development environment in the Java Media family of APIs
- Best practices for developing content for TV
- How to avoid performance and memory issues in TV applications

TS-4528 RESTful Access to Java™ Platform, Micro Edition (Java ME Platform) Service APIs

Erik Hellman, Sony Ericsson

MOBILITY • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

What if the services provided on mobile phones (such as GPS, accelerometer, or contact list) could be accessed over a common interface regardless of runtime and where the application is executed from? In the enterprise domain, we have had access to several choices for cross-platform service invocation; one of the latest and most powerful is called RESTful Web services.

Enabling this technology for Java™ Platform, Micro Edition (Java ME) technology-capable devices gives developers the potential to create applications regardless of which runtime they choose or even where the application is running.

This session, for advanced developers interested in application development using services in mobile phones, demonstrates how access has been provided to Java ME platform-based service APIs in a handset as several RESTful Web services that can be accessed by any runtime, either locally on the device or remotely, with only basic HTTP support.

Demos in this session include the following:
- How to access the phones contact list through your PC Web browser
- Reading a phone's accelerometer from the JavaScript&trade programming language in the mobile Web browser
- Building a Web application running on the handset that can be accessed over the Internet

The demos are both on the phone and through the desktop browser, illustrating how to bring advanced handset services to the Web through a standard MIDlet and showing the power of this approach.

TS-4529 A Closer Look at the Java™ Platform, Micro Edition (Java ME Platform) SDK 3.0

Tomas Brandalik, Sun Microsystems, Inc.
Richard Gregor, Sun Microsystems, Inc.
Erik Hellman, Sony Ericsson

MOBILITY | *Introductory*

To handle the growing complexity of Java™ Platform, Micro Edition (Java ME platform) applications, Sun is proud to introduce Java ME Platform SDK 3.0. This comprehensive toolkit can reduce the cost and time spent on functional testing and increase developer productivity, as this session shows.

The Java ME Platform SDK succeeds the Sun Java Wireless Toolkit, and it is the first and only SDK to integrate CDC, CLDC, and even support for creating Blu-ray Disc Java technology-based applications.

The new Java ME Platform SDK architecture allows integration of third-party emulators and devices. Java ME Platform SDK comes with Sun's Java runtime environment for Windows Mobile. A user can install this runtime on a Windows Mobile device or a Microsoft device emulator and experience all the on-device features of Java ME Platform SDK.

With the release of Java ME Platform SDK 3.0, Sony Ericsson is releasing a plug-in to enable features such as on-device debugging and CPU profiling for its devices. Developers can now use all the new features in Java ME Platform SDK 3.0 while benefiting from the additional development features provided by Sony Ericsson.

The Java ME Platform SDK emulator runs on the same VM that Sun provides manufacturers, for much-higher-fidelity emulation. This is enhanced by one-click network monitoring and on-device tooling (on-device debugging, profiling, etc.). For JavaFX™ Mobile applications, a JavaFX Mobile emulator is included.

TS-4533 Augmented Reality with Java™ Platform, Micro Edition (Java ME Platform) Devices

Kenneth Andersson, Sony Ericsson
Erik Hellman, Sony Ericsson

MOBILITY • Cool Stuff | *Advanced*

With a growing number of handsets now equipped with a camera, an accelerometer, GPS, and other sensors, it's now possible to create applications that react to the real-world surroundings and environment, making mobile devices come alive. Developers have several opportunities, ranging from simple things such as pedometers or alarms to more-advanced applications and games such as real-world interactive games or computer-generated feedback on the user's surroundings. In this session, the attendees will see several code examples and applications demonstrating the possibilities with the Mobile Sensors API and the Location API on a Java™ Platform, Micro Edition (Java ME platform)-capable device.

The demonstrations in this session include the following:
- Accelerometer applications (Mobile Sensors API)
- Reading network field intensity and battery status (Mobile Sensors API)
- Location-aware applications (Location API)
- Camera applications

The session is intended for developers who want to learn more about APIs such as Location and Mobile Sensors.

TS-4538 A Virtual Multimedia Office

Eltjo Boersma, Ericsson
Erik Reitsma, Ericsson

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

The Virtual Multimedia Office integrates a 3-D virtual world with mobile devices for real-time collaboration from anywhere. This session shows developers how to build a "mixed-reality" environment using Sun's 100% Java™ technology-based open-source virtual world software stack. It demonstrates how users can access the Virtual Multimedia Office from the road with only a smart phone, in their living room with a television and photo frame, or in a corporate meeting room with an electronic whiteboard and streaming video.

The session also covers the integration of the 3-D virtual world with a smart phone mobile client. It demonstrates how desktop virtual world client avatars interact with Mobile Information Device Profile (MIDP) client avatars. Even with limited capabilities, mobile phone users can navigate around the virtual world; chat with colleagues, using voice; attend meetings; watch presentations; use the interactive whiteboard; and place and receive phone calls to and from the outside world.

With a mobile phone, the session covers how Sun's Project Wonderland virtual world toolkit lets developers build a range of clients that access the same virtual world. Via live demos, it shows the mobile phone user interface and an experimental user interface using a consumer-grade photo frame to notify people at home of a request to join a meeting. That accelerometer-equipped frame can then be used to navigate around the virtual world, displayed on a nearby television.

TS-4544 An Introduction to Complex Event Processing on the Java™ Platform

Andy Piper, Oracle Corporation
Robin Smith, Oracle Corporation

SERVICES: SOA Platform and Middleware Services • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Just what exactly is complex event processing (CEP), and why are event-driven architectures (EDAs) important? CEP is rapidly gaining mainstream adoption as temporal data volumes get exponentially larger. Just as SQL birthed an entire industry of declarative, relational-data-oriented computing, so complex query languages allow the rapid formulation of temporal queries on streaming data. The increasing complexity of these queries makes it increasingly hard to express them in standard programming languages. In addition, CEP applications require a platform to provide enterprise-class features such as monitoring, management, reliability, and availability. This session covers the basics of CEP and the typical use cases it can solve and then moves on to describe a state-of-the-art Java™ platform that is able to fulfill today's demanding requirements.

The presentation aims to introduce architects and managers to what CEP solutions might be able to offer their businesses.

The session covers

- The world of EDA and CEP. Why are events important now, and why is this new?
- EDA use cases and typical implementations. What is driving the demand?
- A detailed CEP use case and its implementation.

TS-4555 Mobile Service Architecture 2: Introducing New Features in Mobile Devices

Kay Glahn, Vodafone
Erkki Rysa, Nokia

MOBILITY | *Advanced*

Mobile devices complying with the JSR 248 — Mobile Service Architecture (MSA) — specification are already on the market in large volumes. These devices provide great opportunities for application developers wanting to address a large number of users. The MSA Expert Group is now finalizing the Mobile Service Architecture 2 specification in JSR 249. MSA 2 extends the MSA platform to cover both very low-end and also high-end mobile devices. It also adds many new features available in modern mobile devices, by including new component JSRs in the specification.

The MSA 2 specification addresses Mobile Information Device Profile (MIDP) 2.1 and 3 devices based on Connected Limited Device Configuration (CLDC) or Connected Device Configuration (CDC). It defines an architecture describing the required client components for the MIDP environment in mobile devices. These components can be APIs defined in JSRs or features within the APIs, such as supported protocols and content formats. The specification also provides additional requirements and specification clarifications aiming to unify the Java™ technology-based platform implementations in mobile devices.

In this session, you will learn about the architectural enhancements introduced in MSA 2 (JSR 249) and the new features that will be available for developers. You will also get an overview of devices currently supporting MSA 1 (JSR 248) and see a demonstration of MSA features in the form of sample applications.

TS-4559 Simply Sweet Components

Ken Orr, The MathWorks

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Component-oriented user interface design offers a refreshingly simple take on widget design. By hiding details and throwing inheritance out the window, you can create an API that is simple to use and less prone to bugs. Swing hasn't provided us with the best design model, in that it offers deeply hierarchical (and therefore complicated) APIs for getting user interface controls onto the screen. The sheer surface area of the API slows down even the most veteran of developers. Componentized UI design squarely addresses the usability of an API, by encouraging small, deliberate APIs that correspond to higher-level widget functionality.

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This session looks at what component-oriented UI design is, how it differs from traditional widget design, and how it will simplify your APIs, and it applies this technique to the design of two different components to help illustrate the technique. First the presentation walks through the design of a search/filter component that provides an OS-appropriate look on Windows and Macintosh. Second, it looks at how the componentized approach can simplify the design of a Macintosh-style source list by hiding the complexities of the underlying JTree implementation.

TS-4564 Gaming Package for Java™ Technology on TV: Solving the Gaming Problem

Amir Amit, Sun Microsystems, Inc.
Sourath Roy, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

With the fast evolution of gaming applications, it is evident that gaming is becoming an essential part of all the screens of our lives, so gaming applications are important for TV too. Java™ technology-based games are very popular on desktop and mobile platforms and are catching on quickly on TV. The programming paradigm between these platforms is different and driven by the available technologies/specifications (such as lcdui.game in CLDC/MIDP 2.0).

The most popular Java technology for TV is CDC with PBP, JSR 219, providing basic graphics support, but PBP alone has some limitations with respect to gaming applications.

This session presents a new gaming package on PBP, a package meant to enable easier game development with Java technology on TV. The package can be used for developing more-compelling applications for TV too. It includes classes used for animation, game controllers, sound for games, hardware access for games, networked communications, and game databases. The motivation for creating this package is to make game development for TV easier, faster, and better. The package aims to reduce time to market and the overall cost of game development.

The session shows key benefits this gaming package introduces for PBP game development and discusses APIs included in this package, along with use cases. It also focuses on the SDKs required for game development and demonstrates gaming applications developed with the package.

TS-4575 Project Darkstar: A Scalable Application Server for Networked Games, Virtual Worlds, and MMOGs

Owen Kellett, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

Today's business applications take advantage of horizontally scalable, high-throughput-oriented computing platforms to meet the ever-increasing capacity demands of users. However, for developers of some applications — including online games, virtual worlds, and social networking software — the demands for short user response time and low latency are somewhat at odds with the high-throughput focus of modern systems architectures.

This session is an all-new deep dive into Project Darkstar, an open-source server-side Java™ platform that focuses on these problems and aims to enable developers of these applications to more easily and successfully harness the power of today's computing technologies. More than just a communications framework, Project Darkstar boasts a simple API that transparently provides a multithreaded, transactional, persistent, and scalable system without the need for zones or shards.

Any developer of networked games, virtual worlds, social networking software, or other online applications will benefit from this brand-new technical session, which provides an overview of the API and how the technology directly addresses these challenges. It also covers

- Typical technical challenges faced when developing scalable networked games and similar applications
- Recent advances and current work being done on and with Project Darkstar
- The actual design and code of Project Snowman, a new 3-D action game built with Project Darkstar

TS-4588 Where's My I/O: Some Insights into I/O Profiling and Debugging

Pavel Genevski, SAP AG

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Once upon a time, software developers witnessed a frightening phenomenon. Technology had reached its natural limits, and CPU clock rates stopped increasing. Developers were concerned. It turned out that they had been relying on ever-increasing CPU speeds to write fancy programs without worrying too much about performance . . . .

That's not a fairy tale but the reality we've been through for the last couple of years. There's been a shift from single to multicore CPUs; virtualization; and big-volume, service-oriented software. In such an environment, performance plays a key role. In today's computing, performance can be viewed in three dimensions:

- CPU
- Memory
- I/O

Every software under load reaches the limits of one of these dimensions. After that the users can either add more resources or try to optimize the software. Although there are plentiful tools and resources that address the first two dimensions, I/O profiling and debugging have somehow been neglected. The amount and structure of I/O is one of the major factors limiting performance of software. There are tools for I/O tracing and heap dump analysis that may help to some extent, but none of them is sufficient to solve the problem.

This session, for developers and testers, covers

- How I/O affects performance of software — a case study
- Some common I/O antipatterns and pitfalls
- JPicus — a live demo of a new Java™ technology-based I/O analysis tool

TS-4593 Real-Life Real Time: Practicalities of Using Sun Java&trade Real-Time System in a Real-Life System

Jeremy Hoyland, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

The latest release of Sun Java™ Real-Time System makes deployment of real-time Java technology-based systems easier than ever. Nevertheless, there are patterns and practices that can improve system performance and robustness, in addition to some antipatterns to be avoided.

This BOF, for developers of real-time and embedded Java technology, is based on real-life experiences during the design and deployment of a large-scale distributed Java Real-Time System with both hard and soft real-time constraints. The attendees get to analyze code samples with nonobvious problems, and some new Java Real-Time System idioms are introduced. The session concludes with a demonstration of how the Java Real-Time System tools can be used to improve overall system tuning.

Attendees will come away from this session with practical skills and idioms for tuning and deployment of successful real-time Java technology-based systems.

TS-4599 Taking a SIP of Java™ Technology: Building Voice Mashups with SIP Servlets

RJ Auburn, Voxeo Corporation

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Introductory*

The Java™ technology world has seen more than its fair share of telephony APIs come and go over the years. Things like JAIN SIP, JTAPI, Parlay, and JAIN SLEE have been showing up on product roadmaps for several years now, but SIP Servlets (just released as version 1.1) are now finally seeing some industry-wide adoption in application servers, both closed and open-source. Companies such as IBM (WebSphere), Red Hat (JBoss), Sun (GlassFish™ application server), Oracle, HP, and Voxeo (sipmethod) have all recently added support for this standard.

SIP Servlets provide a simple API that mimics the widely deployed HTTP Servlet model that enables Java technology developers to easily adapt their existing code and framework for communications applications.

This session provides a short introduction to SIP Servlets, discusses why developers should pay attention, and shows how they can quickly create a converged application using the technology. It also shows how to quickly plug into simple Web APIs by using SOAP and REST to create quick Web mashups.

Concluding the session is information on how the attendees can find out more about the technologies discussed and on what they can do to download and build applications themselves.

TS-4605 Enterprise JavaBeans™ 3.1 (EJB™ 3.1) Technology Overview

Kenneth Saks, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Introductory*

This session provides an overview of Enterprise JavaBeans™ 3.1 (EJB™ 3.1) — JSR 318 — technology.

With its 3.0 release, the EJB architecture was dramatically simplified through a focus on ease of use for application developers. The purpose of the EJB 3.1 specification is to build on the success of that approach by further simplifying the EJB architecture at all stages of the development lifecycle while also adding significant new features requested by the community.

The session covers

- .war packaging of components based on the EJB specification (EJB components)
- A “no interface” local EJB component view
- Portable global Java Naming and Directory Interface™ API names
- EJB “Lite” technology — a standard lightweight subset of the EJB technology-based API
- Standardized unit testing support via the embeddable EJB technology-based API
- Singleton beans
- Startup/shutdown callbacks
- Asynchronous session bean invocations
- Automatic timer creation and calendar-based scheduling

TS-4617 Using Java™ Technology in the Windows Azure Cloud via the Metro Web Services Stack

Harold Carr, Sun Microsystems, Inc.
Clemens Vasters, Microsoft

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

Learn how to build Java™ technology-based Web service clients to access Windows Azure services and how to expose Java technology-based Web services with the Metro Web service stack and .NET Access Control Service and Service Bus.

This session concentrates on how to use Java technology-based services/clients with Windows Azure.

Metro is an advanced Web services stack providing transactions, reliable messaging, and security. .NET Access Control Service is a cloud-based service for controlling access to services in the cloud. .NET Service Bus lets services hosted behind firewalls and NAT be exposed to the Internet.

With the NetBeans™ IDE, the speakers build a Metro-based Web service that uses reliable messaging, deploy that service on the GlassFish™ application server behind a firewall, and make the service reachable from the Internet by using the .NET Service Bus.

They build a Metro-based client that interacts, via the .NET Service Bus, with the Metro-based service and add message-level security to the service and require access control. The service will be registered with the .NET Access Control Service. The client Web service will get a SAML token for authentication and authorization from OpenSSO. This token will then be passed to the .NET Access Control Service, which will produce a new token based on the user credentials and the access authorized for that user for the specific program. The token is passed to the actual service via the .NET Service Bus.

* Content subject to change.

TS-4620 Robust and Scalable Concurrent Programming: Lessons from the Trenches

Sangjin Lee, eBay, Inc.
Mahesh Somani, eBay, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Writing thread-safe and concurrent code is a central element in today's programming on the Java™ platform. Multicore systems are now a firm trend in enterprise Java technology, but software often turns out to be a bottleneck in harnessing the full power of these systems. Highly concurrent software is critical in achieving scalability, yet writing correct thread-safe and concurrent code remains a surprisingly difficult task for many developers.

While working with a big code base and numerous developers at eBay, the speakers see several problematic patterns and errors repeated over and over again in the area of concurrent programming. In tackling these issues, they have accumulated several important solutions and lessons that have proven to be useful and applicable in most of these situations.

This session presents some of the most frequent "antipatterns" that are incorrect or not scalable (or both) and suggests solutions to them. It focuses on concrete examples and provides practical solutions and considerations drawn from these examples. The presentation also discusses how applying these practices and lessons has resulted in substantial scalability improvements at eBay, the world's largest e-commerce Web deployment.

TS-4629 Tips and Tricks for AJAX Push and Comet Applications

Jean-François Arcand, Sun Microsystems, Inc.
Ted Goddard, ICEsoft Technologies

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

Emerging AJAX techniques called AJAX Push or Comet have brought revolutionary changes to Web application interactivity and have moved the Web into the Participation Age. In this session, learn the tips and tricks the speakers have acquired through application development. The session sets the stage with a brief overview and some demos of AJAX Push and then dives into the lessons learned. What is the impact of the browser two-connection limit, and how can you multiplex over a single connection? What is "long polling," and how can you guarantee that no messages are lost during reconnection? What is "HTTP streaming," and how can it be made to work with proxies? How can push operations be implemented in the application, and how can they be filtered, aggregated, and throttled to avoid bottlenecks and achieve real-time performance? How can reliable delivery be guaranteed? How can push applications be clustered for reliability and scalability? Attendees will leave with the real-world experience that will allow them to successfully move their AJAX Push and Comet applications into production.

This session is suitable for developers, at any level, interested in AJAX Push and Comet.

Attendees will learn how to
- Deal with browser connection limits
- Use long polling and streaming on the open Internet
- Effectively develop push applications
- Filter, aggregate, and throttle to achieve real-time performance
- Use clustering for reliability and scalability

TS-4639 Step-by-Step Development of an Application for the Java Card™ 3.0 Platform

Anki Nelaturu, Sun Microsystems, Inc.
Eric Vetillard, Trusted Labs

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

This session introduces the various features of the Java Card™ 3.0 platform through the development of a realistic application that can manage your authentication credentials. This application is based on the Java Card 3.0 platform's Servlet model, and it will use the Java Card 3.0 platform's most innovative features, such as persistent data and transactions, sharing between applications, and declarative security. The session also covers topics that go beyond the basic features of the Java Card 3.0 platform and focuses on the security of the application. It emphasizes the protection of the Web application by use of declarative security and the protection of sensitive data through cryptography. The presentation also explores other aspects of security, such as the possible exploitation of standard Web attacks on smart card platforms.

The session is aimed at Java Card 2 technology and Java™ Platform, Enterprise Edition (Java EE platform) technology developers who would like to learn about the new Servlet model introduced by the Java Card 3.0 platform.

The session includes the development of a small but realistic Java Card 3.0 technology-based application and also covers
- Typical practical issues faced by Java Card 3.0 technology developers
- Java Card 3.0 technology-specific security challenges

TS-4640 A Complete Tour of the JavaServer™ Faces 2.0 Platform

Ed Burns, Sun Microsystems, Inc.
Roger Kitain, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

This session presents a comprehensive tour of all the new features in the JavaServer™ Faces 2.0 platform. The presentation focuses exclusively on breadth and provides very little depth but offers pointers on how to get more depth on the features.

The session covers the following topics:
- Annotations for the JavaServer Faces 2.0 platform
- Resources
- What's a resource?
- What's a resource library?
- How are resource libraries localized and versioned?
- Annotations
- Example
- Composite components
- What's a composite component?
- How are resource libraries localized and versioned?
- Example
- Event system
- Publish/subscribe
- Uses
- AJAX
- Using from components
- Using with a tag
- Other features

TS-4641 State: You're Doing It Wrong — Alternative Concurrency Paradigms on the JVM&trade Machine

Jonas Bonér, Scalable Solutions

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

Writing concurrent programs in the Java™ programming language is hard, and writing correct concurrent programs is even harder. What should be noted is that the main problem is not concurrency itself but the use of mutable shared state. Reasoning about concurrent updates to, and guarding of, mutable shared state is extremely difficult. It imposes problems such as dealing with race conditions, deadlocks, live locks, thread starvation, and the like.

It might come as a surprise to some people, but there are alternatives to so-called shared-state concurrency (which has been adopted by C, C++, and the Java programming language and become the default industry-standard way of dealing with concurrency problems).

This session discusses the importance of immutability and explores alternative paradigms such as dataflow concurrency, message-passing concurrency, and software transactional memory. It includes a pragmatic discussion of the drawbacks and benefits of each paradigm and, through hands-on examples, shows you how each one, in its own way, can raise the abstraction level and give you a model that is much easier to reason about and use. The presentation also shows you how, by choosing the right abstractions and technologies, you can make hard concurrency problems close to trivial. All discussions are driven by examples using state-of-the-art implementations available for the JVM™ machine.

TS-4645 AJAXifying Existing Web Applications

Anas Mughal, Bluenog

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

Rich Internet applications offer richer user experiences than non-RIA applications and are considered for many new projects, but existing non-RIA applications do not get much attention. Technically, these applications' back ends were designed to serve HTML content. Business users often do not anticipate the benefits of improving an interface that already delivers some business value. However, AJAXifying existing Web applications to deliver greater value can be straightforward.

Almost all business applications must report tabular data. This session, for Web developers, describes how to incorporate ExtJS's rich data grids into these applications to present tabular data, with sorting and paging capabilities. It covers the design and implementation of Java™ technology-based server-side applications to provide data payload, sorting, and pagination for the rich data grid.

Portals must enforce security on all portlet-based AJAX calls. The session presents an appropriate design approach to facilitate the easy addition of AJAX handlers and to provide portlet-level security on AJAX calls. The AJAX handlers will use the Spring MVC framework.

Attendees will learn how to
- Incorporate ExtJS's rich data grids into Web applications
- Design and implement Java technology-based server-side applications to provide data payload, sorting, and pagination
- Facilitate the addition of AJAX handlers and provide portlet-level security on AJAX calls

TS-4674 Java™ in the Brazilian Digital TV: Interactivity and Digital Inclusion on TV

Magno Cavalcante, PETROBRAS

Clayton Chagas, Brazilian Army Research Center

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

This presentation aims to demonstrate the singularities techniques implemented in the Brazilian System of Digital Terrestrial TV (SBTVD — Sistema Brasileiro de TV Digital Terrestre), whose development and technological advances are the result of joint work of governmental institutions, universities, research centers and private companies.This integrated effort resulted in an open standard, royalty-free, whose primary goal is to facilitate digital and social inclusion (low cost of set-top-box), besides being one of the most modern systems of digital TV in the world, in all its parts and features.

The software responsible for interactive applications in SBTVD is based on Java™ technology for digital TV: JSR-927 Java TV API 1.1, JMF and a new Brazilian API called Java DTV, that specifies how to implement the innovations that were added to the standard, in an open and portable format, through the Ginga middleware (product developed at Brazilian research centers and universities), whose module responsible for the execution of Java TV is called Ginga-J.

The presentation will also inform the business that could be originated from the broad adoption of the Digital TV standard by the industry, as well as its use by the population.

Target audience: students, researchers and professionals with intermediate knowledge of Java, producers of multimedia content and applications for devices shipped (JME) and businessman of the industry of IT and telecommunications.

TS-4694 Debugging Your Production JVM™ Machine

Ken Sipe, Perficient

Cool Stuff • Tools and Languages | *Advanced*

So your server is having issues? With memory? Connections? Limited response? Is the first solution to bounce the server? Perhaps change some VM flags or add some logging? In today's Java™ 6 technology world, with its superior runtime monitoring and management capabilities, the reasons to bounce the server have been greatly reduced. With proper Java Management Extensions instrumentation, the need to bounce the server may be eliminated for all but the rarest of cases.

This session, for all Java technology developers and administrators, looks at the Java 6 platform's monitoring and management capabilities, which include the ability to make VM argument changes on the fly. In addition to what is provided in the JDK™ software, it demonstrates several management tools that are available at no cost.

The session dives deeply into
- jconsole — for memory monitoring, heap dumping, and thread analysis
- JMV tools — jmap, jhat, jinfo, jstack
- BTrace — the open-source option for on-the-fly monitoring of the JVM machine

TS-4696 JDBC? We Don't Need No Stinkin' JDBC: How LinkedIn Scaled with memcached, SOA, and a Bit of SQL

David Raccah, LinkedIn Corporation
Dhananjay Ragade, LinkedIn Corporation

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

Have you built your site around the JDBC™ API and MySQL™ database or Oracle Database, only to find it slowing when you need it the most? Have you found that more customers means more hardware and more sleepless nights? No, this isn't an infomercial for yet another SOA boondoggle. This session shows how LinkedIn and many other high-scaling Web sites are storing their most precious data and, even more importantly, how they keep to ACID rules while still responding to user requests from external caches. Higher user loads mean more opportunity to interact and sell to your users but also mean that you need to have the systems to respond to their requests. Come learn about how to scale large back-end systems that stay ACID from the end user's perspective but scale with open-source technologies, to many cheap machines, without using the dreaded two-phase commit.

The session provides

- A quick overview of JDBC and caching technologies
- Gap analysis of most systems out there today
- An explanation of how LinkedIn uses open-source technologies (memcached, MySQL database, Tomcat, Jetty, and Java™ technology) to build a scalable data storage tier
- Best practices for storing user-generated content in multiple languages and in a way that allows for more languages and features — without rebuilding the tables and/or the file structure
- Best practices, including phased conversion and rollout — no need for a massive all-or-nothing conversion

TS-4701 Web 2.0 Phone Home: Rapid Development of Telecom-Enabled Web Applications

Gregory Bond, AT&T Labs Research
Thomas Smith, AT&T Labs Research

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

New open standards and open-source software let you add telecom capabilities, such as clicking a button to launch a phone call or automatically answering a call and forwarding it, to your Web applications. This session, for Web developers with no telecom background who want to add telecom capabilities to their Web applications and for telecom service developers looking to simplify development of their applications, provides a detailed look at how to rapidly develop telecom-enabled Web applications with open-source tools. It shows how the ECharts for SIP Servlets (E4SS) framework and the KitCAT test tool simplify development of telecom components based on the SIP Servlet standard. Telecom components rarely stand alone, so the session shows how easy it is to integrate telecom components with Web applications, using the Grails Web application framework as an example. Finally, it shows how the resulting converged application can be deployed on the SailFin Servlet container, a Servlet container built atop the Java™ Platform, Enterprise Edition (Java EE platform) technology-based GlassFish™ application server container.

You will learn

- How to develop modular, robust telecom applications with E4SS
- How to compose telecom applications into complex, powerful services with application routing
- How to conduct JUnit-style testing of converged telecom applications with KitCAT
- How to integrate E4SS telecom components with Grails Web applications

TS-4706 Bringing JTable to the Extreme

David Qiao, JIDE Software, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

There is no question that JTable is one of the most used and most powerful components among all Swing components. The Swing toolkit is heavily used among enterprise applications that deal with tons of data. JTable is the first-choice component for displaying, manipulating, and interacting with data. Developers expect too much from JTable, but as it is, it has many limitations. This session's speaker has often been asked by people from different companies in various industries, "Is this feature possible with JTable"? The answer is pretty much the same most of the time: "Yes, but you need to extend JTable to do it". But the question is, how? This session tells you how. The presentation

- Uncovers the internals of JTable design
- Explores possible ways to extend JTable
- Shows many useful (and cool) features made possible by extension of JTable

You can use these features to meet your real-world applications' requirements. In the session, you will not only find out about adding existing features to JTable but also learn how to extend JTable to add your own features and bring JTable to the extreme. You will find this presentation extremely helpful if you are doing a data-rich desktop application by using Swing.

TS-4723 Ardor3D: Improving on the Monkey

Joshua Slack, Ardor Labs

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

From two of the senior developers of the jMonkeyEngine comes Ardor3D, a new 3D Java™ engine targeted at serious applications, tools and of course... games!

Come learn what's new in 3D Java technology, see some professional applications using Ardor3D, and learn how you can start using this advanced engine today.

* *Content subject to change.*

TS-4733 Java™ Platform, Enterprise Edition Technology-Based Connector Architecture 1.6

Binod Pg, Sun Microsystems, Inc.
Sivakumar Thyagarajan, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services • CORE TECHNOLOGY: Java EE Technology | *Advanced*

The connector architecture in Java™ Platform, Enterprise Edition (Java EE platform) enables an enterprise application to work with disparate enterprise information systems (EISs) such as databases, MoM products, and transaction monitors. The technology enables the application server to become the integration tier, helps developers and EIS vendors consolidate their integration logic, and saves application component developers the trouble of integrating with multivendor systems.

The Connector 1.6 specification (through the work done in JSR 322), part of the Java EE 6 platform, enhances the the earlier Connector 1.5 specification in the following areas:

- Defining a generic mechanism for contextual information during work execution. The specification standardizes propagation of security and transactional information from an EIS to a Java EE technology-based component.
- Dramatically simplifying the development of connectors through extensive use of Java programming language annotations, reducing the need to develop redundant code and the need for a deployment descriptor, better programmatic defaults, and so on.
- Providing features that enhance QoS and the reliability of connection management, work execution, and the like.

This session covers these changes and demonstrates how developers can effectively use them in building resource adapters.

TS-4771 Java Card™ 3 Platform: A Platform for Embedded Systems

Saqib Ahmad, Sun Microsystems, Inc.
Laurent Lagosanto, Gemalto
Patrick Van Haver, Gemalto

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Introductory*

Java Card™ 3 technology, unveiled in 2008, is ready for deployment.

With its two editions, Classic and Connected, it's suited for all smart cards: legacy to high-end multimedia products. This session looks beyond this to envision how Java Card 3 technology can be used in the embedded systems area.

The session compares this technology with existing Java™ Platform, Micro Edition (Java ME platform) technologies (CLDC, MIDp, IMP, Squawk) and embedded Linux solutions in terms of footprint, CPU requirements, execution, and application models.

Some intrinsic properties of the Java Card platform make it competitive for building embedded systems:

- Persistent memory model and execute-in-place: impacts on system startup, power budget
- JVM™ machine on bare metal
- Dynamic application downloading: not necessarily a closed system
- Web server and container (unique in this memory budget)
- Remotely management with open/standard protocols
- Security model supporting multiple actors and trust delegation

The session presents real-life use cases:

- Healthcare systems (USB token French experimentation)
- Sensors (value of an HTTP[s] client stack)
- Digital home (value of an HTTP[s] server stack)

It also suggests evolutions of the spec:

- Reducing footprint with static products (fixed feature set)
- Getting rid of APDUs: beyond cards, APDUs and applets are useless
- Going beyond the Servlets application model

TS-4773 Java Card™ Platform Puzzlers

Alexander Glasman, Sun Microsystems, Inc.
Hema Kalsi, Sun Microsystems, Inc.
Thierry Violleau, Sun Microsystems, Inc.
Lichun Zhan, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

The recent release of the Java Card™ 3.0 Platform, Connected Edition, gives smart card application developers rich functionalities and some of the latest features of Java™ Platform, Micro Edition (Java ME platform); Java Platform, Standard Edition (Java SE platform); and Java Platform, Enterprise Edition (Java EE platform). Simultaneously, the specifics of Java Card 3.0 platform features may seem like pitfalls to mainstream Java technology developers new to the Java Card environment.

This session shows specifics of the Java Card platform — persistence, transactions, security, multithreading — in a "solve a riddle" way. It is illustrated with code examples that can easily be understood by anyone with some experience with Java technologies. All these puzzles may work as expected in other Java environments but behave differently when deployed on a Java Card platform. Their analysis familiarizes attendees with the core features of Java Card technology and shows how to avoid traps during application development.

The session is for Java Card technology developers and a wide range of Java technology developers interested in learning about this topic or extending their skills to smart card applications.

The session presents

- An overview of core features of the Java Card platform
- Entertaining puzzles about Java Card platform specifics
- Information on avoiding possible pitfalls during development of Java Card technology-based applications

** Content subject to change.*

TS-4775 RESTful Transaction Systems

Mark Little, JBoss Inc.
Michael Musgrove, Red Hat

SERVICES: SOA Platform and Middleware Services | *Advanced*

The emerging world of Web services and e-commerce means that application developers must ensure consistency in the presence of failures (machine, network, and so on). In the traditional world of distributed objects, consistency guarantees are typically provided by transaction systems with the well-known ACID properties, but ACID semantics require use of a blocking protocol, with resources acquired within the scope of such a transaction needing to remain inaccessible to others until that transaction is complete. In the Web services world, where business interactions may span hours or days, ACID semantics become too restrictive.

In the SOAP world, this problem has been addressed by OASIS WS-TX work. However, we are seeing an increase in the use of REST-based developments, which build on standard HTTP interactions, alongside the need to ensure consistency and reliability within these types of applications. Unfortunately, applying WS-TX to REST is not straightforward and not necessarily the right approach in the first place. This presentation looks at the requirements for RESTful transactions and describes a corresponding protocol the speakers have been developing for the past few years. They compare and contrast it with OASIS WS-TX. Finally, they demonstrate an initial prototype they have implemented based on the Java™ API for RESTful Web Services (JAX-RS) and the RESTeasy implementation (although nothing they have done is dependent on a specific JAX-RS implementation).

TS-4783 Design Patterns for Complex Event Processing

Alexandre Alves, Oracle Corporation
Shailendra Mishra, Oracle Corporation

SERVICES: SOA Platform and Middleware Services | *Introductory*

Complex event processing (CEP) enables the real-time processing of high-volume streaming data. CEP applications can be authored with the declarative Continuous Query Language (CQL), which extends SQL. As with any programming language, one of the best ways to learn it is to take a look at its design patterns.

This session goes through several design patterns for CEP, using CQL, including the following:

- Event filtering
- Event routing
- One-to-one and one-to-many event correlation
- Event partitioning
- Event aggregation
- Jumping windows
- Sliding windows
- Event enrichment with static data
- The “a followed by b” pattern
- The “W” pattern

TS-4789 Developing Visually Stunning 3-D User Experiences with Java™ Technology and M3G on Mobile

Peter Horsman, ARM Ltd.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

The Mobile 3D Graphics (M3G) API is used to deliver 3-D gaming on millions of mobile phones today. This session explains how M3G can be used to create exciting applications beyond gaming. It covers the existing API and some new features of the updated API, including programmable shaders.

The intended audience will have a knowledge of Java™ technology-based MIDlet development and an interest in using 3-D to enhance application design.

What you will get from this session:

- Using 3-D APIs for nongaming mobile applications
- Human interaction via picking and ray intersection
- Using programmable shaders to enhance content

TS-4801 Does Your Mobile Speak the JavaFX™ Programming Language?

Jan Sterba, Sun Microsystems, Inc.
Juraj Svec, Sun Microsystems, Inc.

MOBILITY | *Introductory*

How do you get developers and designers to speak the same language? How do you bridge the gap between the desktop and mobile worlds? With the JavaFX™ programming language, that’s how. The new JavaFX platform brings rich Internet applications to all the screens of your life. You can write the source code for an application once and then compile and run it in either a desktop or mobile environment. You can leverage the power of animation and 3-D sound and video to develop interactive 2-D and 3-D games that work across all JavaFX platforms. Even better, you don’t have to throw away your existing Java Platform, Micro Edition (Java ME platform) code to do it. Supercharge your old applications by just adding JavaFX platform features on top of your existing Java ME code. If you want to see some eye-popping demos of these and other cool new features of the JavaFX platform, then don’t miss this presentation.

TS-4807 Easily Tuning Your Real-Time Application

Bertrand Delsart, Sun Microsystems, Inc.
Frederic Parain, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff • Tools and Languages | *Advanced*

The usual Java™ technology-based tools are of limited use for profiling and understanding real-time applications. First of all, real-time applications are very sensitive to monitoring interference. In addition, the Real-Time Specification for Java (RTSJ) defines new paradigms, such as ImmortalMemory and NoHeapRealtimeThreads, that are not supported by the existing profiling APIs. Even more importantly, new tools must be developed to help users interpret the new determinism-related information and to configure the new tunable mechanisms that have been added to the various JMV™ machines to offer soft or hard real time.

This session covers how Sun’s NetBeans™ IDE module addresses these issues for the Sun Java Real-Time System. A demo will

cont. >>

help you understand how to easily perform, for instance, the following actions:

- Select some key configuration parameters
- Enable the system to learn how your application behaves and to tune the configuration accordingly
- Visualize the execution of your threads with very little interference, focusing on what matters
- Profile memory consumption

TS-4839 Enterprise Integration Patterns In Practice

Keith Babo, Sun Microsystems, Inc.
Bruce Snyder, SpringSource, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

This session explores enterprise integration patterns from both a practitioner's and implementer's perspective, providing guidance on where patterns fit in your application architecture, along with insight into how the patterns are best implemented. The presentation includes a broad survey of the EIP catalog, followed by in-depth analysis of common use cases and application of patterns in the real world. It covers deployment considerations for a variety of deployment environments, including MOM, SOA, and ESBs, and also addresses the relationship between EIP and integration standards such as SCA, JBI, and WS-*. It includes multiple demonstrations using Apache Camel and OpenESB to show patterns in practice.

Attendees with no experience with integration or enterprise integration patterns will benefit from the broad coverage of the subject and hands-on demonstrations. Seasoned integration developers will appreciate the implementation tips and tricks learned in the trenches while putting EIP into practice.

Apache Camel: http://activemq.apache.org/camel/

Project Fuji: https://fuji.dev.java.net/

TS-4842 A Music Visualizer with the Java™ Media Framework API and JavaFX™ Technology

Lucas Jordan, EffectiveUI

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

An overview of the technical challenges in creating a music visualizer with JavaFX™ technology — including sampling audio streams, synchronizing animations, user interaction, and deployment — this session is intended for those interested in implementing audio applications with Java™ and JavaFX technology. The presentation provides insight into

- Integrating JavaFX technology with AMF
- Creating animations based on audio data
- Related deployment pitfalls

TS-4846 Building Asynchronous Services with Service Component Architecture

Mike Edwards, IBM

SERVICES: SOA Platform and Middleware Services | *Advanced*

Real-life enterprise applications often involve processing steps that can take a long time to complete, but clients cannot always afford to wait around for a service to complete. One solution to this problem is to create asynchronous services, where a client can make a request to the service and the service response (or responses) is later delivered separately.

Creating asynchronous services and clients to asynchronous services is not so easy with traditional programming APIs but is much simpler with service component architecture, which has a full model for creating components that provide or use asynchronous services, including simple Java™ technology-based interfaces with a minimum of middleware getting in the way.

Learn more in this session.

TS-4847 DTrace and Java™ Technology: Taking Observability to the Next Dimension

Jonathan Haslam, Sun Microsystems, Inc.
Simon Ritter, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

The Solaris™ 10 operating system (Solaris 10 OS) delivered a revolutionary new subsystem called the Solaris Dynamic Tracing framework, more affectionately called DTrace. DTrace is an observability technology that enables you, for the first time, to answer virtually every question you ever wanted to ask about the behavior of your systems and applications.

Unlike traditional profilers designed for Java™ technology-based applications, DTrace enables you to slice through the entire system from Java application code right through to kernel-level interactions. This session looks at how DTrace can be used to analyze the code of a Java technology-based application and the resultant interaction of the JVM™ machine running this code with the rest of the Solaris OS. Also, new features are being added to the Java Platform, Standard Edition 7 (Java SE platform 7) that will enable the creation and use of programmer-defined instrumentation points, similar to those of the existing User-Level Statically Defined Tracing (USDT) provider. The session also details how to use the new JavaScript™ Development Toolkit (JSDT) provider.

The session also covers how data obtained from DTrace can be visualized in innovative ways and presents a proof of concept that uses anaglyph 3-D rendering by JMonkeyEngine to display a call graph in three dimensions. Attendees will use special 3-D glasses for maximum enjoyment of the demonstration.

** Content subject to change.*

TS-4854 Beyond Broadcast: Building and Optimizing Interactive Television Applications with Two-Way Data

Anne Dirkse, enableTV, Inc.
Wendy Lally, enableTV, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Advanced*

This session discusses two-way data in GEM-based interactive television platforms, with examples of a cross-platform Blu-ray and tru2way/OCAP application. The case study for the presentation is a cross-platform travel application in which content is dynamically updated and viewers can choose their own viewing sequence. The sequence is based on the traveler's own itinerary or criteria, rather than the traditional fixed-sequence and static content of broadcast and disc-based media. The presentation covers implementing live data updates so that content not available at the time the program or disc was created can be seamlessly integrated, with a focus on optimization for constrained platforms and on optimizing applications for usability and compatibility across GEM-based interactive television platforms.

TS-4856 GlassFish™ESB: Get Your Apps on the Bus

Keith Babo, Sun Microsystems, Inc.
Frank Kieviet, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

You're writing Java™ Platform, Enterprise Edition (Java EE platform) apps with ease and boosting productivity and efficiency with annotations, dependency injection, and simple persistence APIs. What more could your manager want? Well, what about orchestrating the beautiful business logic you've written in the Java EE programming language? Sprinkle a little workflow into your Web-based front end? Hook your logic up to your stack of legacy apps? Maybe it's time to consider what an enterprise service bus (ESB) can offer you.

This session introduces the latest addition to the GlassFish™ project family, GlassFish ESB, and highlights how application developers can open their business logic to completely new domains in the enterprise. It includes several common use cases, with concrete examples of how to address them with an ESB:

- Coordinating business logic via orchestration and workflow management
- Consuming resources offered by legacy applications and information resources
- Decoupling business logic from protocol details
- Leveraging bus services to enrich applications

You will learn how existing applications can be adapted to leverage an ESB's power, focusing on minimizing change to existing business logic and maximizing the ESB's value-add. Sun GlassFish Enterprise Service Bus is used for demo purposes, but the lessons of this session apply to any ESB environment.

https://open-esb.dev.java.net/glassfishesb/

TS-4861 Pro JavaFX™ Platform: RIA Enterprise Application Development with JavaFX Technology

Stephen Chin, Inovis
Jim Weaver, Veriana

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

The JavaFX™ platform is the new platform of choice for developing rich Internet applications for the enterprise. This session picks up where the Pro JavaFX Platform book series ends, with step-by-step demos and instructions for building a rich enterprise application for desktop and mobile platforms.

In this session, you will learn how to
- Build a rich JavaFX technology-based enterprise GUI with graphing and reporting
- Communicate with back-end services for data visibility
- Unit-test back-end code on the JavaFX platform
- Deploy JavaFX technology in an application server context
- Integrate with security and authentication services
- Drag and drop to create desktop widgets using WidgetFX
- Deploy enterprise services to a mobile device

No prior experience with JavaFX technology is required. Don't miss this opportunity to learn from veteran Java™ and JavaFX technology instructors and authors Jim Weaver and Stephen Chin.

TS-4863 Java™ Platform Concurrency Gotchas

Alex Miller, Terracotta

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Concurrency is hard. The Java™ platform has a rich set of concurrency primitives, but it's still possible to shoot yourself in the foot. In fact, concurrency makes it substantially more likely that you'll shoot not just yourself but everyone else in the room. This session covers common concurrency gotchas on the Java platform, such as what NOT to synchronize on, inconsistent or missing locking, dangers of wait/notify, deadlock, safe publication, and visibility problems.

The presentation illustrates each concurrency issue with a code example. It uses existing tools such as FindBugs and the Java VisualVM tool to help attendees understand the problem and finally gives a solution.

The intended audience is Java technology developers working on concurrency applications.

Key points:
- Common concurrency problems
- Tools for detecting concurrency problems
- Ways to fix concurrency problems

TS-4868 Sun SPOTs: A Great Solution for Small Device Development

Claudio Horvilleur, Cromasoft

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

This session shows how to develop new devices based on the Sun Small Programmable Object Technology (Sun SPOT), converting a complex firmware development process into a simple software development. The presentation is supported with practical working demos and devices.

* *Content subject to change.*

TS-4875 Developing RESTful Web Services with the Java™ API for RESTful Web Services (JAX-RS)

Marc Hadley, Sun Microsystems, Inc.
Paul Sandoz, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

The Java™ API for RESTful Web Services (JAX-RS) is an annotation-driven API that makes it easy to build Java technology-based RESTful Web services that adhere to the REST architectural style.

This detailed overview of JAX-RS, now an approved final JSR, is designed to appeal to novice and expert Java technology developers who want to understand more about this API and how to build RESTful applications. At the end of the session, developers will have a better understanding of how to build their own RESTful Web services using JAX-RS. This session forgoes a detailed introduction to REST to ensure that more time is spent presenting and demonstrating the API.

It examines the following areas in detail, and, where appropriate, includes live coding demonstrations:

- Mapping URLs to Java class files and methods
- Handling HTTP requests for common HTTP methods
- Obtaining parameters from the HTTP request
- Using MIME media types and mapping representations to MIME media types and Java programming language types
- Returning representations and HTTP metadata
- Injecting useful helper classes, general injection rules
- Support in Java Platform, Enterprise Edition 6 (Java EE 6 platform) with Enterprise JavaBeans™ (EJB™) technology

It also covers the following areas in less detail:

- Building of URIs
- Mapping of Java programming language exceptions to HTTP responses
- Security with servlet-based security

TS-4877 Sun GlassFish™ Mobility Platform

Hans Hrasna, Sun Microsystems, Inc.
Santiago Pericas-Geertsen, Sun Microsystems, Inc.

MOBILITY • Cool Stuff | *Introductory*

The Sun GlassFish™ Mobility Platform is a standards-based development platform for enterprise and consumer mobile applications that runs atop the GlassFish application server.

Mobile applications developed with the Sun GlassFish Mobility Platform can access data via synchronization (based on the OMA DS standard) and RESTful Web services using the JSR 311 (Java™ API for RESTful Web Services [JAX-RS]) client API JerseyMe. Data is encrypted and cached on the device for offline access. A connector, a server-side component giving access to a specific data store, can be developed for any data store providing basic CRUD access to its objects. The Sun GlassFish Mobility Platform offers out-of-the-box adapters that connectors can use to access data from popular enterprise information systems such as SAP, Siebel, and Oracle, plus RDBMS databases and file systems.

This session covers the Sun GlassFish Mobility Platform and its new features and APIs that simplify developing mobile clients and connectors for a rich mobile user experience. The evolution of the Sun Java System Mobile Enterprise Platform, the Sun GlassFish Mobility Platform offers better client and server APIs, better integration with the Java On Device Portal, OpenESB, support for object merging, and more. Come see demos of the most recent Sun GlassFish Mobility Platform sample mobile solutions and get access to a URL to download the demos by using the Sun GlassFish Mobility Platform's provisioning server.

TS-4883 Coding REST and SOAP Together

Martin Grebac, Sun Microsystems, Inc.
Jakub Podlesak, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Advanced*

This session questions the possibilities of architecting a new application, or rearchitecting an existing one, for exposing SOAP as well as REST front ends. In such a situation, the largest drawback is cost of maintenance and thus code reuse becomes increasingly important. With SOAP and REST being rather opposite architectures, fighting cost increases the need for compromises. This session questions the principles of both styles and discusses the potential drawbacks and outcomes of not adhering to each of the individual principles.

Java™ API for XML Web Services (JAX-WS) and Java API for RESTful Web Services (JAX-RS) are annotation-driven APIs that make it easy to build Java technology-based SOAP and RESTful Web services. People can easily use annotations from both specifications to implement both SOAP and REST interfaces in their Web services, and the presentation introduces general guidelines on how to apply this approach and make SOAP and REST live peacefully together. It also discusses cases in which the REST style can be broken if all of its principles are not adhered to, and it provides some patterns for fixing it.

TS-4887 Garbage Collection Tuning in the Java HotSpot™ Virtual Machine

Charlie Hunt, Sun Microsystems, Inc.
Antonios Printezis, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Users of the Java HotSpot™ Virtual Machine (HotSpot JVM™ machine) have several different garbage collectors (GCs) at their disposal, with each GC exhibiting different performance trade-offs. What the GCs have in common, however, is a long list of tuning parameters that enable users to tune many aspects of the GC's behavior. Even though the GCs work quite well out of the box for many applications, sophisticated users with challenging applications need to do some (or a lot of) GC tuning to get the last ounce of performance out of the HotSpot JVM machine.

GC tuning often intimidates users, but there are some easy approaches they can take to make the process more straightforward and effective. This session covers several GC tuning techniques the speakers have developed, based on years of experience with helping their customers, and illustrates their effectiveness with concrete examples.

cont. >>

The presentation covers various GC tuning topics, including
- Tuning advice for the younger generation (space sizing, tenuring threshold tuning, and so on), which is shared among all the GCs in the HotSpot JVM machine
- Specific tuning advice for throughput and low pause, concurrent GCs (tuning GC cycle initiating occupancy, minimizing GC pause times, trade-off between low pause times and high throughput, and so on)
- Miscellaneous topics such as tuning for chip multithreading (CMT) and tuning for multiple JVM machines per system

TS-4921 Dynamic Languages Powered by GlassFish™ Application Server v3

Jacob Kessler, Sun Microsystems, Inc.
Vivek Pandey, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff • Tools and Languages | *Introductory*

Traditionally, a Java™ Platform, Enterprise Edition (Java EE project) application server is meant to run only Java technology-based applications, but now the support for dynamic languages running on the JVM™ machine means new possibilities for running applications on Java EE platform servers.

Developers don't need to be aware of Java EE platform-specific technologies unless they want to leverage Java EE platform features. The GlassFish™ application server v3, via its extensibility mechanism, makes this best-of-both-worlds approach a reality.

Among the topics in this session:
- Dynamic language support overview
- Ruby on Rack : Rails, Merb, Sinatra, Campsite....
- Python and Django
- Groovy on Grails
- How it works
- Architecture
- Grizzly wired DL frameworks
- Jython
- Django support
- WSGI and Grizzly
- Groovy on Grails
- Grails support out of the box
- Better Grails support
- JRuby
- Rack specification: any framework support possible
- Default support of Rails, Merb, Sinatra
- Accessing Java EE platform features (database connection pool, Java Message Service [JMS], Enterprise JavaBeans™ (EJB™) technology)
- GlassFish gem vs. GlassFish v3 application server (light weight vs. flexibility)
- Administration/monitoring
- Demo: Rails/Merb application development with GlassFish gem application server
- Demo: Django on GlassFish application server v3

TS-4923 Java™ Platform, Enterprise Edition 6 with Extensible GlassFish™ Application Server V3

Jerome Dochez, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

There's some exciting news in the Java™ Platform, Enterprise Edition (Java EE platform) world. First of all, a new version, the Java EE 6 platform, is being released, and coupled with the newest version of the GlassFish™ application server, V3, this is a cornerstone of the Java platform on the server.

V3 of the GlassFish application server is a major rewrite of this application server: It is now entirely modular and based on an industry-standard module subsystem OSGi implementation, Apache Felix. This session looks at the new application server's architecture and what modularity has brought to GlassFish application server users and developers.

With the release of the Java EE 6 platform, focused on programmer productivity, GlassFish application server V3 is offering some exciting new features for programmers, and the session runs through some of the major changes available, such as the Java Servlet 3.0 API and Enterprise JavaBeans™ 3.1 (EJB™ 3.1) technology.

The GlassFish application server is also more than just a Java EE technology-compatible application server, leveraging OSGi and numerous extension points. The session demonstrates how easy it is to use the GlassFish application server to run Rails and Grails applications and extend the frameworks available, such as Spring.

The session ends with a roadmap update on the next releases, including clustering support and GlassFish application server community vitals.

TS-4943 LincVolt Car: Driving Toward 100 Miles per Gallon

Paul Perrone, Perrone Robotics, Inc.

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

Rising gas prices and demand for clean energy are spawning alternative energy solutions from industry innovators. Rock star and visionary Neil Young's 2.5-ton 1959 Lincoln Continental convertible "LincVolt" is being repurposed to demonstrate that 100-mile-per-gallon automobiles are possible now. An Automotive X-Prize competitive entrant and showcase for clean, green, and energy-efficient mobility, LincVolt is raising the bar for energy-efficient vehicular technology, leveraging Java™ technology on-board and on the Web for sensor telemetry and energy management controls.

This session describes LincVolt's use of Java technology on-board to gather vital data and statistics about the car's operational energy efficiency and how this data is pushed to the Web for the world to see. It also discusses how the flexible Java technology-based software on-board evolved to also monitor and manage LincVolt's motors and energy sources. The presentation demonstrates the LincVolt intelligent dashboard, a.k.a. "LID," and its touch screen user interface and shows them alongside video of LincVolt in action.

TS-4945 FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition

Eric Arseneau, Sun Microsystems, Inc.
Brad Miller, WPI

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

1. The Java™ platform is an interesting vehicle for teaching kids about programming.
2. FIRST is an organization whose mission is to inspire young people to be science and technology leaders by engaging them in exciting mentor-based programs that build science, engineering, and technology skills; inspire innovation; and foster well-rounded life abilities such as self-confidence, communication, and leadership.
3. Robots are cool; robotic competitions are even cooler.

What happens when you mix these three things? You come up with a winning combination that lets kids and "adults" have a lot of fun.

FIRST is always in need of technical mentors of all types and capabilities. How would you like to get the thrill of helping a young mind expand its horizons while having fun yourself? More than 1,500 teams, 40,000 kids, and 20,000 mentors are involved worldwide.

This session, for for novice to advanced developers, covers

- How FIRST ported Java technology to National Instrument's CompactRIO programmable automation controller
- The APIs FIRST has in place to program the robots through the CompactRIO
- WPIlib
- Java Platform, Micro Edition (Java ME platform) Information Module Profile (IMP)
- Squawk Java Virtual Machine (JVM™ machine)
- The development process that enables these rather large robots to perform intelligent things
- Live programming of these 4-to-5-foot-high robots
- An actual FRC team that competes
- How you can help

TS-4954 Modularity in the Java™ Programming Language: JSR 294 and Beyond

Alex Buckley, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session reports on new Java™ programming language features for modularity and the Jigsaw module system being used to modularize the JDK™ software itself.

TS-4955 Comparing Groovy and JRuby

Neal Ford, ThoughtWorks Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Life used to be so simple in the Java™ technology world. The only real decisions you had to make were which dozen frameworks to use in your project. Now dynamic languages have invaded Java technology land, and you have lots of choices. But to the casual observer, JRuby and Groovy look like pretty much the same thing, with slightly different syntax. Nothing could be further from the truth. Although they both share lots of commonalities, they are also quite different.

This session delves into those differences, providing the attendees with enough concrete facts to make decisions. It covers differences between type systems, extending the core JDK™ software, closures, and properties. It also covers metaprogramming differences, where the languages diverge the most, including open classes, code synthesis, mix-ins, interfaces, intercepting method missing calls, shadow metaclasses, and lots more.

Code is the focus of this presentation, with tons of examples. It will give attendees a clear picture of the real differences between these new kids on the Java technology block.

TS-4961 "Design Patterns" for Dynamic Languages on the JVM™ Machine

Neal Ford, ThoughtWorks Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Advanced*

The "Gang of Four" book was actually two books: (1) a nomenclature describing common software problems and (2) a recipe book for solutions. The vocabulary they defined is still useful. The recipes are a disaster, though! Dynamic languages (such as Groovy and Ruby) have powerful metaprogramming facilities far beyond statically typed languages. It turns out that many of the structural design patterns in the "Gang of Four" book and beyond are much easier to solve with metaprogramming. This session compares and contrasts the "traditional" approach of design patterns with a more nuanced metaprogramming approach. Using language features creates cleaner abstractions with fewer lines of code and little or no additional structure. This session shows one of the many reasons dynamic languages are such a hot topic.

TS-4964 Unit Testing That Sucks Less: Small Things Make a Big Difference

Neal Ford, ThoughtWorks Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Unit testing seems to a lot of managers and developers like pure overhead, but professionally responsible developers know that it is one of the keys to quality. This session covers a bunch of small tools that make testing easier and faster. It discusses tools such as Infinitest, Jester, MockRunner, Hamcrest, Groovy, RSpec/EasyB, and Selenium. Although none of them is elaborate enough to warrant its own session, together they add up to more than the sum of the parts. The session shows tools and strategies that streamline testing, making it easier and more palatable for both managers and developers.

** Content subject to change.*

TS-4966 Upgrading OSGi

BJ Hargrave, IBM
Peter Kriens, aQute

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Advanced*

The Java™ programming language has gone through many changes since OSGi was initiated, in 1998, when the Java 1.1 platform was the prevalent version. As a good steward, OSGi paid a lot of attention to backward, forward, and cross-platform compatibility to preserve the investments of the people spending time and money on OSGi-based systems. OSGi has always allowed implementations to be deployed on the widest array of Java runtime environments.

Although part of the success of OSGi can be attributed to this dedication to compatibility, it also causes strains on the high end, because being compatible with a low-end Java platform means that certain very useful features of more-powerful and later versions of the Java platform cannot be taken advantage of. In particular, the language features of the Java 5 platform, specifically generics, are sorely missed by most enterprise programmers, and the OSGi API has an outdated feel.

This session's speakers have produced a prototype of an OSGi framework that provides a completely modernized API for bundles while still providing backward compatibility with bundles that are bound to the current API. This presentation reports their experiences and shows you how the OSGi API can be enhanced by use of Java 7 platform features, including JSR 294 language changes for modularity (depending on the availability of necessary details).

TS-4967 Don't Do This! How Not to Write Java™ Technology-Based Software

Dean Wampler, Object Mentor, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

As a consultant, this session's speaker sees a lot of bad code. Come learn about common problems he sees in code, the damage they cause, and what you should do instead.

You will learn about the following bad ideas (and then some):

- This code will never be used in a multithreaded environment.
- Just because you're paranoid, it doesn't mean you shouldn't check for nulls!
- Comment everything!
- I'll create my own JDBC™ technology-based connection, thank you very much!
- Why retest when you can copy and paste?
- Why use two methods when one will do?
- Here, have an exception.

TS-4978 Project playSIM: Experimenting with Java Card™ 3 System Programming

Eric Arseneau, Sun Microsystems, Inc.
Fritjof Engelhardtsen, Telenor

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Advanced*

The Java Card™ system is the smallest Java™ platform available, but what can you do with it? This session covers some interesting examples involving the playSIM development kit.

playSim is an open-source development kit for prototyping new and creative Java Card 3 technology-based applications without the hardware limitations of today's smart cards. It combines the flexibility of the open Sun SPOT platform with the hard security requirements of SIM-card-based applications. Sun SPOT is used as an execution engine as well as a modular hardware platform to enable connection of different types of sensors and I/O interfaces.

See how the presenters combine the flexibility of open-source technologies such as Sun SPOTs and Squawk Virtual Machine with the commercial license aspects of the Java Card 3 platform.

Come see how to

- Experiment with Java Card 3 in the embedded domain through the I/O capabilities of the Sun SPOT platform
- Get started with Java Card 3 Servlets, even without terminal support
- Simulate SIM and smart cards with embedded radios
- Experiment with Near Field Communication (NFC), using regular radios
- Create new machine-to-machine interactions
- Add one or two boards to a Sun SPOT and have a ready playSIM kit
- Simulate smart cards with gigabytes of memory, using ordinary MiniSD cards

playSIM is an open-source hardware/software project; all source and details are at https://playsim.dev.java.net/.

TS-4993 Dealing with Asynchronicity in Java™ Technology-Based Web Services

Gerard Davison, Oracle Corporation
Manoj Kumar, Oracle USA

CORE TECHNOLOGY: Java EE Technology | *Advanced*

Asynchronicity is a fact of life in distributed systems and is becoming more important in the Web services world as Web services mature. In the client case, there is the asynchronous API pattern that enables a Web service proxy to be notified when a call to an asynchronous Web service has finished, without blocking the original sending request. A similar pattern has been added for the server side to the Java™ API for XML-Based Web Services (JAX-WS) reference implementation, in the form of AsyncProvider. This presentation covers many other ways of implementing asynchronous Web services and building clients for such services.

The intended audience is anyone who develops, designs, and architects Web-services-based applications.

The session addresses

- Client-side asynchrony based on JAX-WS
- Server-side asynchrony
- WS-Addressing for correlation of message and response
- Several possible implementations of asynchronous services
- Building asynchronous clients with callbacks or MakeConnection

TS-5015 Welcome to Ruby

Thomas Enebo, Sun Microsystems, Inc.
Charles Nutter, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

This session provides an introduction to the Ruby language and core classes for developers who have never used Ruby before. It teaches you Ruby's clean, flexible syntax and shows how to define methods, classes, and modules. It walks through the most-important core classes, showing string manipulation, arrays and hashes, file and network I/O, and numeric operations. It introduces key Ruby libraries such as RubyGems, for packaging; Rake, for builds; and RSpec, for behavior-driven development. And it gives a taste of what it's like to build full-scale Ruby Web, GUI, and graphics applications.

After the session, you'll know enough Ruby to start exploring on your own. You'll be able to install JRuby, install a few gems, and start writing applications and libraries. And you'll be ready to expand into your favorite application domain, be it desktop applications, Web-based applications, or graphics and gaming. You will be a Rubyist, and you'll never want to go back.

TS-5025 Java™ Platform, Enterprise Edition 5 in a National Electronic Health Record System Implementation

Srdjan Stakic, Advanced Systems Guild LLC

SERVICES: SOA Platform and Middleware Services | *Advanced*

This presentation illustrates the speaker's experience in developing a national electronic health record system. After a brief introduction of an electronic healthcare records domain problem and a concise overview of usage scenarios and system features, it explains (and illustrates with the actual code samples) how Java™ Platform, Enterprise Edition 5 (Java EE platform) features were used to reach several concurrent goals:

- High security and data privacy protection
- International standards compliance
- Integration with numerous vendors that have implementations in different technologies
- Testing and integration procedures

The presentation includes explanations of decisions the development team made in respect to system design and performance trade-offs it experienced, as well as lessons learned. Attendees should have intermediate to advanced Java technology programming skills.

TS-5033 Scripting Java™ Technology with JRuby

Thomas Enebo, Sun Microsystems, Inc.
Charles Nutter, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

JRuby means Ruby for the JVM™ machine, but it also means the Java™ platform for Ruby. JRuby can call and integrate with your favorite Java technology-based libraries, frameworks, and applications. JRuby brings all the power of Ruby's clean, flexible syntax to Swing-based desktop applications, Java Platform, Enterprise Edition (Java EE platform) technology-based server applications, and any other applications you used to build with Java technology. JRuby makes Ruby a first-class citizen on the JVM machine.

This session introduces JRuby's Java technology integration capabilities, showing how to call Java technology-based methods from Ruby and Ruby from the Java platform. It shows how to implement interfaces and extend classes to integrate directly into libraries and frameworks. It also shows how to build a simple application, illustrating how easy and beautiful Java technology-based libraries can be when scripted with Ruby. And it surveys a few key Ruby libraries that take advantage of JRuby and the Java platform.

TS-5034 Developing Smart Java™ Code with Semantic Web Technology

Holger Knublauch, TopQuadrant, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

This session, for Java™ technology developers interested in new technology, introduces semantic Web standards such as RDF and SPARQL and shows how to use them to build next-generation Java technology-based applications. Semantic Web technology should be part of any developer's toolbox: It borrows ideas from object-oriented modeling and applies them to the Web. Objects in semantic Web languages have unique global identifiers and can thus be linked together and reused from external sources. Semantic Web objects can be self-describing and define constraints and rules to drive their behavior. In sum, developers can build very flexible object structures to drive an application in smart ways. Instead of hard-coding applications' behavior in the Java programming language, generic semantic Web engines can dynamically discover the next steps by looking at the data model and the semantics attached to the classes and properties. The session gives an overview of key technologies and APIs, including open-source Java technology-based libraries, RDF databases, and professional Eclipse-based development tools.

Key points:

- Basic ideas of the semantic Web and its relation to object-oriented programming
- Building classes, properties, and instances with RDF Schema
- Defining queries, constraints, and rules with SPARQL
- Overview of relevant semantic Web Java technology-based libraries/tools
- Demos of sample applications with source code

TS-5035 How to BluTube: Broadcasting over Broadband to a Blu-ray Player

Won Baek, Dreamer
John Kim, Dreamer

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Advanced*

This session focuses on how to create and deploy a private broadcast channel that delivers audio, video, and interactive applications to TVs via a broadband-connected Profile 2.0-compliant BD-Live Blu-ray disc player. It discusses a thin-client approach that enables the content and presentation to be controlled from the server side. It also introduces and discusses an API that optimizes application segmentation and client resources, along with a tool for encoding and segmenting content for progressive download to Blu-ray players. And it shows a sample video-on-demand application.

cont. >>

The session is intended for audiences familiar with building Java™ TV API and BD-J applications.

Attendees will learn
- The pros and cons of thin and thick clients when planning a service for Blu-ray
- Best practices for UI design for Blu-ray applications
- The requirements for preparing content to be downloaded to a Blu-ray player
- How to create an application for delivering video
- How to distribute an application to a Blu-ray player, including the Sony PlayStation 3.

TS-5036 Using REST and WS-* in the Cloud

Doug Tidwell, IBM

SERVICES: SOA Platform and Middleware Services • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

REST and WS-* services have made the software behind our applications more flexible, and cloud computing promises to do the same for the hardware. This session looks at deploying, using, and managing services in the cloud. It starts by using REST (JSR 311) to work with code and data in the cloud and then looks at some of the more advanced features of the WS-* stack, including encryption and authentication. You'll leave with an understanding of how these two major trends complement each other.

The intended audience is developers and architects, and programming experience and some knowledge of SOA are recommended.

What you will learn in this session:
- How cloud computing and service-oriented architectures work together
- How to use JSR 311 to deploy and access services in the cloud
- How to use WS-Security and other WS-* standards in the cloud

TS-5038 Exploring Spontaneous Communication in a Seamless World

Vando Batista, C.E.S.A.R

MOBILITY • Cool Stuff | *Advanced*

We live in a world with more mobility, from computation and communication possibilities to on-the-move applications, and providing a framework and middleware systems targeted to mobile computing and mobile ad hoc networks (MANETs) is very useful. This session aims to depict a way to provide an infrastructure to spontaneous networks, applications, services, and users through the Spontaneousware framework. This abstract framework platform is for developing middleware systems for mobile computing and mobile ad hoc networks, providing message-oriented middleware and distributed topic-based message-brokering systems. Its architecture is designed to be platform-independent, and it can be implemented on any appropriate device and in any object-oriented language. In this domain, it solves some issues such as asynchronous message exchanging, distributed topic-based message brokering, message notification, network transparency for the application, content type abstraction for sending/receiving messages, and so on. Mobile middleware based on Spontaneousware was implemented for the target platform, Java™ Platform, Micro Edition (Java ME) and the Bluetooth network.

This session is for developers interested in software development for highly mobile applications.

In this session,
- Get involved with mobile computing and ad hoc networks
- Learn how to explore ad hoc connectivity
- Learn how to participate in building distributed systems on top of Spontaneousware

TS-5045 Conversations and Page Flows on the JavaServer™ Faces Platform

Dan Allen, Red Hat, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

Not too long ago, the Web came out of its shell and became social, not only on social networking sites but also in terms of communication between individual page views. Seam and Spring Web Flow both introduce the concept of a conversation context whose purpose is to maintain state that pertains to a use case across a series of pages. Conversations help ween developers off the HTTP session, being a far more attractive option because their lifecycles can be managed independently of each other. They also last minutes rather than hours, reducing load on the memory footprint on the server. In addition to a long-running context, conversations can be combined with page flows offered by each framework, which constrain a user's navigation path to a predefined sequence. As such, page flows can help reduce the complexity of navigation in an application.

This session presents the approach to conversations and page flows taken by each framework. It addresses their pros and cons, focusing primarily on how well they fit with the JavaServer™ Faces platform.

The target audience is anyone developing an application that involves a sequence of steps or who struggles with maintaining state in a Web application.

The session covers
- The definition of a page flow
- How page flows are developed in Seam
- How page flows are developed in Spring Web Flow
- Seam's ad hoc conversations

TS-5047 Enterprise Solutions for Java™ and JavaScript™ Technology Integration with Advanced Modeling/Tooling

Justin Early, eBay, Inc.
Yitao Yao, eBay, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

This session presents eBay's advanced JavaScript™ technology-based semantic extensions, tooling, and integrations that power the eBay site. It covers deep integration of JavaScript and Java technologies interoperating in both client and server environments. The session highlights these capabilities through the integrated IDE tool VJET in areas such authoring, maintaining, refactoring, debugging, testing, and deployment scenarios.

cont. >>

The session is for Java and JavaScript technology architects and developers interested in Java technology-level typing on the JavaScript platform and deep integration between Java and JavaScript technology in client-server systems.

The session covers

- How Java technology-based semantics and their related development benefits can be achieved in JavaScript technology without hindering the JavaScript platform's native functional programming paradigm
- How JavaScript technology developers can leverage Java technology-like typing, modeling, development, dependency management, tuning, packaging, and tooling
- How Java technology developers can leverage their skills, familiar development environments, and models for building JavaScript technology-based applications
- How interoperability between Java and JavaScript technology is achieved by promoting JavaScript technology to encompass equivalent Java technology-bsed semantics in a familiar and easy-to-understand structure

TS-5052 Hacking the File System with JDK™ Release 7

Alan Bateman, Sun Microsystems, Inc.
Carl Quinn, Google, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

JDK™ release 7 has a new file system API that fixes many of the long-standing issues and limitations of java.io.File. This presentation walks through examples and code that demonstrate effective use of the API for building great tools and applications. It covers topics such as manipulating paths, temporary files, file permissions, symbolic links, copying and moving files, operating on file trees, dealing with errors, creating your own file system, and more.

TS-5055 Java™ Platform, Enterprise Edition 5 and 6: Eclipse and NetBeans™ IDE Tooling Offering

Ludovic Champenois, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Introductory*

The GlassFish™ v2 application server is the Java™ Platform, Enterprise Edition 5 (Java EE 5 platform) reference implementation and a production-ready application server. The GlassFish v3 application server is the next generation of application servers, built on top of an OSGi modular system, and is the working environment for defining the new Java EE 6 specification.

Both application servers have a nice integration with the

- Eclipse IDE based on WTP and EclipseLink JPA Dali tooling. A new Eclipse plug-in is also in progress for offering the Java API for XML Web Services (JAX-WS) Metro Web Services development environment. A cobundle of Eclipse + the GlassFish application server will also be available for Java EE technology developers.
- NetBeans IDE, which will start offering Java EE 6 platform support in the NetBeans 7.0 release.

This session presents the current Eclipse and NetBeans IDE tooling offering for the GlassFish application server (Java EE 5 and Java EE 6 platforms) as well as previews of the Java Servlet 3.0 API, the JavaServer™ Faces 2.0 platform, JAX-WS Metro Web Services, and Enterprise JavaBeans™ 3.1 (EJB™ 3.1) technology development using the two leading IDEs.

TS-5059 Real Time: Understanding the Trade-Offs Between Determinism and Throughput

Eric Bruno, Sun Microsystems, Inc.
Roland Westrelin, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

Real-time responsiveness for Java™ technology-based applications has gained the attention of many Java technology developers. However, understanding the real-time characteristics of various Java technology-based offerings can be a challenge for developers. This session discusses the relevant metrics associated with measuring real-time characteristics; the differences between soft, hard, and non-real-time systems; and comparisons of the Java Platform, Standard Edition (Java SE platform) and Sun Java Real-Time System offerings for this space. It presents benchmark results to highlight the differences in real-time performance of these various offerings and configurations. Additionally, the session presents real-world case studies, such as uses of the Sun Java Real-Time System in the financial services community. Examples it discusses are a message processing system and an event processing system, similar to those used in the electronic exchanges and banking systems running our global economy.

The session ends with a discussion of the future directions for Sun Java Real-Time System performance. The session is delivered by members of the Sun Java Real-Time System engineering and performance analysis teams from Sun Microsystems.

TS-5082 Matchmaking in the Cloud: Hadoop and EC2 at eHarmony

Per Jacobsson, eHarmony
Steve Kuo, eHarmony

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

With the emergence of pay-as-you-go cloud computing and open-source map/reduce frameworks, the doors have opened for anyone to take on problems that require hundreds of concurrent CPUs crunching terabytes of data. This session is a case study of how the cloud is used at online matchmaking company eHarmony. It looks at how Amazon's Web services and Apache Hadoop enable predictive modeling algorithms to be applied on a large scale at low cost and what problems Java™ technology developers must be ready to handle when approaching cloud computing.

The session is for developers interested in the practical application of cloud computing and map/reduce.

Key takeaway points:

- A view of how Hadoop and Amazon Web services can be used to solve large-scale data-intensive problems in the real world
- How a cloud computing solution differs from a traditional Java Platform, Enterprise Edition (Java EE platform) technology-based application; what problems you can expect to solve or not to solve with this approach
- Techniques and frameworks that make the developer's life easier when developing with Hadoop

* Content subject to change.

TS-5098 RIA Teacher Gradebook Managing Millions of Students with Swing and Web Services: How It Was Done

Deane Richan, Pearson

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

The PowerTeacher Gradebook application provides a rich Internet application experience for thousands of teachers managing millions of students. Teachers are pulled many directions; take on many roles in the education environment; and need powerful and easy-to-use applications that provide secure connectivity, data protection, and easy access from many machines. Although standard HTML Web applications have solved data protection and connectivity issues, these applications lack a rich user experience that teachers have expected and need in a gradebook application.

The PowerTeacher Gradebook provides an online multitier gradebook application in an elegant user interface with easy access from any Internet-connected Java™ technology-powered desktop computer.

This session describes the underlying architecture used to produce the gradebook application, with tips and lessons learned related to a large-scale deployment of these types of rich Java technology-based applications. The gradebook application has been on the market for two years and is now managing grades for millions of students in classrooms across North America.

Attendees should be able to understand at a high level the process and architecture needed to create a successful, elegant, Swing-based rich Internet application while transitioning to JavaFX™ technology.

TS-5117 Touch Our Application! Building a Rich Touch-Enabled SVG UI for Java™ Platform, Micro Edition

Karol Harezlak, Sun Microsystems, Inc.

MOBILITY • Cool Stuff | *Advanced*

This session, for experienced Java ME technology developers, covers trends in Java™ Platform, Micro Edition (Java ME platform) mobile UI development. You will learn about challenges and problems in everyday UI development for the Java ME platform for touch-screen-based devices. The session also explains the architecture of rich SVG UI widgets. The rich SVG UI touch-enabled library helps speed up the process of designing a slick, modern UI for touch screen devices. The session covers the most-common scenarios for this type of UI development, illustrated by source code examples and UI screen shots and diagrams. It offers a live touch-enabled example of applications designed with rich SVG UI widgets. It also introduces NetBeans™ Mobility 7.0 (under development), SVG UI Composer, and Java ME SDK 3.0 and uses them as a primary IDE and runtime for the demo.

The target audience is the rapidly growing number of developers for large touch screen, Java ME technology-based devices such as Samsung Omnia/Instinct, Nokia 5800 Xpress Music, or Blackberry Storm.

The session offers
- Information on challenges and most effective solutions for Java ME technology-based touch-enabled UIs
- An intro to mobile, touch-enabled Java ME technology-based UIs
- An architecture overview of rich SVG touch-enabled widgets
- A live demo with lots of source code examples

More information about rich SVG UI widgets:
http://wiki.netbeans.org/MobilityDesignerRichComponents

TS-5123 SOA at Enterprise Scale: Solving Real Challenges with GlassFish ESB

Istvan Molnar, SmartX Ltd.
Geza Simon, SmartX Ltd.

SERVICES: SOA Platform and Middleware Services | *Advanced*

This session, for developers (Web services, BPEL, JBI) and analysts with SOA experience, covers SOA in a Fortune 100 company. The large scale of the project demands a technical infrastructure that best fits the firm's needs, both technologically and in terms of TCO/ROI. The firm chose GlassFish ESB, based on a proof of concept. The session gives an impression of the project's size and the scope: It involves approximately 200 interfaces, used by 50+ interoperating business processes. The system spans many countries, with local services connected to a local ESB and global ones through a global ESB. Such a distributed ESB has special deployment considerations: Each process needs to be modifiable individually but needs different — country-specific or global — privileges.

The company achieved this by leveraging the Java™ Business Integration (JBI) model of service units and service assemblies. Naturally, it faced challenges along the way: The session presents these and provides patterns for implementers of similar real-life projects. One example is how it measures and evaluates the coverage of business processes, based on the BPEL monitoring API. The session includes some impressive BPEL process and composite application (CASA) diagrams; performance test results; and, at the end, the code coverage evaluation.

The session covers
- SOA in real life, enterprise-scale integration
- Challenges and proposed patterns
- Using and extending open-source JBI

TS-5134 Fusing 3-D Java™ Technologies to Create a Mirror World

Scott Bennett, SRA International, Inc.
Steve Vaughan, SRA International, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

In the last few years, some exciting new 3-D tools, applications, and environments have come to the Java™ platform, promising enhanced visualization and collaboration. Examples of these technologies include the virtual globe provided by NASA's World Wind, the virtual worlds of Sun's Project Wonderland, and the game environments developed with jMonkey Engine. The convergence of these entertainment and information systems into a common platform provides opportunities for manipulating and visualizing real-world data. Imagine what you could achieve by combining your existing investments in KML and other forms of geospatial data, the smooth animation and particle system simulations of a game, and a realistic view of the physical world in a single collaborative environment.

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This session is oriented toward Java™ technology developers who would like to learn how to incorporate real-world data into the resulting unified 3-D environment. It provides

- An overview of the architecture and design of SRA International's API
- Brief coverage of technical challenges encountered during integration and how they were overcome
- Information, via example code, on how to use the API to create your own mirror world
- Live demonstrations of real-world applications being developed with the system

TS-5136 Nereus-V: Massively Parallel Computing of, by, and for the Community

Rhys Newman, Oxford University
Ian Preston, Oxford University

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

The more than one billion idle desktop computers in the world represent computing power 100 times that of the top 500 supercomputers combined, and Nereus-V technology is the first credible candidate to make these available for productive use by leveraging the ubiquity, security, and portability of the Java™ platform. This session describes the Nereus-V technology; includes several demonstrations — including BOINC, for projects such as SETI@Home and ClimatePrediction.net — on the Java platform; and invites audience participation.

The session is for a general audience, from technical developers interested in x86 emulation to those interested in how to leverage idle desktops for additional productivity or donate the same to worthy causes in a secure and stable way.

The session covers

- How the Nereus-V system enables massively parallel computing on a global scale for key humanitarian computing projects.
- The unique advantages of this system over existing technology such as BOINC.
- How easy it is to develop for and to donate to — the audience will be invited to participate in a live demo.
- Some of the exciting directions this unqiue technology is taking the Java platform.

TS-5154 XTP: Patterns for Scaling SOA, WOA, and REST Predictably with a Java™ Technology-Based Data Grid

David Chappell, Oracle Corporation

SERVICES: SOA Platform and Middleware Services • Cool Stuff | *Advanced*

This session highlights specific patterns that take advantage of distributed Java™ platform agent-based caching in an in-memory data and execution grid to enable shared state management with near-in-memory access speeds for state data by services in SOA, WOA, and RESTful architectures. Using these patterns, SOA-based applications can achieve predictable scalability and high availability while insulating organizations from the need to enforce special architectural practices across the organization for "stateless" service development, enabling Java technology-based or .NET services to be written like everyday objects that encapsulate state data with the business logic that operates on it.

The presentation discusses pros and cons of stateless versus stateful services and the service state repository. It explores architectural patterns for service state management such as "fault-tolerent collection," "load-balanced fault-tolerant services," "business logic affinity," "level 2 caching," "state-based notification," and "claim check." In addition, it examines pros and cons of multilevel service state caching in virtualized environments.

Come learn how next-generation SOA-based application architectures can be built to take advantage of scalable, predictable, virtualized environments that are capable of adapting to the ever-changing needs of the business.

TS-5162 Developing LimeWire: Swing for the Masses

Sam Berlin, Lime Wire, LLC
Michael Everett, Lime Wire, LLC

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

LimeWire is arguably the most popular Swing application around. With more than 10 million unique LimeWire users per day from all over the world, the technology behind LimeWire has to be stable and the interface has to appeal to all audiences. LimeWire recently rebuilt the entire interface from scratch, using Swing.

This session, for all Swing developers targeting the Java™ 1.6 or later platform, discusses LimeWire's new UI architecture. It covers tips and examples for using various technologies such as core Swing, SwingX, AppFramework, GlazedLists, and XUL. The session focuses on what is required to easily create good-looking interfaces in Swing.

From this session, you will get information on

- SwingX painters — These help customize widget rendering.
- AppFramework — @Resource helps easily change icons and colors.
- Wireframes — Developing a wireframe before adding paint is good.
- Layers — JXLayer or JLayeredPane make great additions.
- Light weight versus heavy weight — Sometimes mixing is a necessary evil.

TS-5173 Resource-Oriented Architecture (ROA) and REST

Scott Davis, Davisworld Consulting, Inc.

SERVICES: SOA Platform and Middleware Services • Cool Stuff | *Introductory*

Google quietly deprecated its SOAP search API at the end of 2006. Although this doesn't mean that you should abandon SOAP, it does reflect a growing trend toward simpler dialects of Web services. Google joins several popular Web sites (Yahoo!, Amazon, eBay, and others) that offer all the benefits of Web services without all of the complexity of SOAP.

This session looks at the semantic differences between a service-oriented architecture and a resource-oriented architecture. It contrasts RPC-centric interfaces with object-oriented interfaces. It discusses HTTP-RPC services that call themselves RESTful and compares them with fully RESTful Web services that leverage HTTP verbs such as GET, POST, PUT, and DELETE. And it looks at RESTful implementations using Java™ Servlet APIs and exploiting Grails' native REST support.

TS-5184 Bean Validation: Declare Once, Validate Anywhere — A Reality?

Emmanuel Bernard, JBoss, a Division of Red Hat

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology | *Introductory*

Data constraints validation is a concern shared by multiple layers in applications (presentation, business, persistence, and so on). This traditionally leads to duplication. Bean Validation (JSR 303) aims at standardizing validation on the Java™ platform. This session shows you how various layers can use the same constraint declarations and transparently validate data across an application. It demonstrates this with Java Platform, Enterprise Edition (Java EE platform) and shows how JavaServer™ Faces 2 technology and Java Persistence API 2 transparently enable validation.

The session is intended for Java and Java EE technology developers willing to standardize validation and avoid redundant declarations in their applications.

It covers
- How to define, declare, and validate constraints
- The various Bean Validation integration points and how frameworks can benefit from it
- How Java EE 6 technology transparently activates validation across all layers

TS-5186 Return of the Puzzlers: Schlock and Awe

Joshua Bloch, Google, Inc. | ALSO A ROCK STAR |
Neal Gafter, Microsoft

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Just when you thought it was safe to go back to the JavaOne℠ conference . . . . After a one-year hiatus, Click and Hack, the type-it brothers, are back and badder than ever. Josh Bloch and Neal Gafter present eight more programming puzzles for your entertainment and enlightenment. The game show format keeps you on your toes, and the puzzles teach you about the subtleties of the Java™ programming language and its core libraries. Anyone with a working knowledge of the language will be able to understand the puzzles, but even the most seasoned veterans will be challenged. The lessons you take from this session will be directly applicable to your programs and designs. Some of the jokes may even be funny. If you detested Episode VI, you'll despise this talk. Come early, because overripe fruit will, as usual, be given to the first 50 attendees.

TS-5198 Full-Text Search: Human Heaven and Database Savior in the Cloud

Emmanuel Bernard, JBoss, a Division of Red Hat
Aaron Walker, base2Services

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Advanced*

With the popularity of cloud computing growing as rapidly as the number of Java™ technology developers, we need to find solutions to help our applications and Web sites easily scale. Most modern Web sites are database-driven, and this tier is often the hardest to scale. Most current solutions use expensive proprietary database clustering technology, so simply adding more Web servers won't solve your data access scalability requirements. This presentation walks through a case study showing how using Hibernate Search greatly simplified building a scalable on-demand Web site on the Java platform and Java Platform, Enterprise Edition (Java EE platform).

The intended audience is Java technology developers or architects willing to explore Hibernate Search and see an innovative use of full-text search as a scalability tool.

The session covers:
- Full-text search as a human search tool
- Clustering search in a Java EE environment without compromising scalability
- The key scalability issues for data retrieval
- Techniques for building highly scalable Web sites and Web applications
- Techniques for building applications that are cloud-ready

TS-5201 Save the Planet! Go Green by Using Java™ Technology in Unexpected Places

Joe Polastre, Sentilla

MOBILITY • Cool Stuff | *Introductory*

Do you know where your energy is being used? With ubersmall embedded Java™ technology, fully programmable Java technology-based systems are deployed at the point of consumption. Imagine a Java technology-powered device connected to all your appliances, TVs, servers, and heating system. With configurable logic, Java technology programmers can control equipment to analyze and reduce energy consumption. With Java technologies, from Java Platform, Micro Edition (Java ME platform) at the source to Java Platform, Enterprise Edition (Java EE platform) for the Web, energy profiles are visible globally with high granularity and managed by Java technology-based programs.

This session covers Java technology-enabled products that measure, monitor, analyze, and control real-world equipment. It highlights an example of embedded Java technology that nonintrusively automates server energy profiling in a data center: server load, disk usage, CPU usage, and efficiency are based only on energy consumption data.

To show how to control energy usage, the session covers multitier collaboration between embedded devices and GlassFish™ application server services. Java technology-based applications make local decisions at the device, track trends across equipment, and integrate with running infrastructure to save energy.

With code samples and a live view of its energy footprint, the session shows that Java technology developers can manage the world's energy use and waste.

TS-5205 Writing Killer JavaServer™ Faces 2.0 UI Components

Kito Mann, Virtua

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

One of the key goals of the JavaServer™ Faces 2.0 platform is ease of use, and component development is a prime example: All it takes is a single file.

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What does this mean? Now you can write a reusable widget with ease, whether it's a single HTML element, a reusable panel, or a powerful AJAX widget. If you can't express everything in a single Facelet template, that's OK — you can add logic with either Groovy or the Java™ programming language. And don't worry — JavaServer Faces 2.0 technology lets you easily package and version resources (such as style sheets, images, or JavaScript™ technology-based files) in libraries, which you can load from a Java Archive (JAR) file or from your Web application.

This session walks through the process of creating UI components on the JavaServer Faces 2.0 platform, moving from a simple component to a more complicated AJAX widget and looking at all of the great facilities the JavaServer Faces 2.0 platform offers component developers. It also discusses the new AJAX JavaScript API, which simplifies the process of writing AJAX components and facilitates interoperability between different AJAX component suites.

TS-5213 Cleaning Up with AJAX: Building Great Apps That Users Will Love

Clint Oram, SugarCRM

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Advanced*

This informative session explains how AJAX technologies can be leveraged to create highly productive yet very attractive business Web applications. Attendees will learn about best practices in building AJAX-driven user interfaces and will see some concrete examples of strong AJAX-enabled UIs in action.

The intended audience for this informative session is developers looking for insight into creating great application interfaces.

The session covers
- How AJAX can be leveraged to create more-productive application environments
- Best practices for using AJAX inside applications such as CRM tools
- Some examples of AJAX in action in Web applications

TS-5214 Java™ Persistence API 2.0: What's New?

Linda DeMichiel, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

Since the introduction of the Java™ Persistence API 1.0 as part of Enterprise JavaBeans™ 3.0 (EJB™ 3.0) technology, the Java Persistence API has shown itself to be one of the most exciting of the technologies recently added to Java Platform, Enterprise Edition (Java EE platform).

In response to requests from the community, the Java Persistence API has been expanded in release 2.0 to include several additional key new features.

This session provides an up-to-the-minute look at some of the new features provided by Java Persistence API 2.0 and how to use them.

Among the topics the session covers:
- Expanded modeling capabilities and object-relational mapping functionality
- How to write queries by using the new modeling and mapping features with the Java Persistence API query language
- The new Criteria API
- Pessimistic locking
- Using the Bean Validation API (JSR 303) with the Java Persistence API

TS-5216 Toward a Renaissance VM

Brian Goetz, Sun Microsystems, Inc.

John Rose, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

The Java™ Virtual Machine has powered the Java platform's success, so well that many developers don't know where the Java programming language leaves off and the JVM™ machine picks up. It was created with the Java programming language's needs in mind but offers much to languages beyond the Java programming language.

More than 200 languages are hosted on the JVM machine: JRuby, Jython, Groovy, Clojure, Scala, the JavaFX™ programming language. Some have a lot in common with the Java programming language; others are quite different. A key challenge to language implementers is to make up the difference between their languages and the JVM machine's Java technology-oriented abilities.

This session, for those interested in using/implementing non-Java programming languages on the JVM machine, covers the progress of JSR 292, which, as part of JDK™ 7 release, will enable improved performance for languages beyond the Java programming language, specifically dynamically typed languages such as Ruby and Groovy. Via techniques such as method handles, invokedynamic, and interface injection, language runtimes can become equal partners with the JVM machine in defining method invocation and type definition semantics while reaping the benefits of the JIT optimization of JVM machine implementations such as the Java HotSpot™ VM.

The session covers
- The role of the JVM machine as distinct from the Java programming language
- The content/status of JSR 292
- New JVM machine features in JDK release 7
- Other new JVM machine features

TS-5217 "Effective Java": Still Effective After All These Years


Joshua Bloch, Google, Inc. | ALSO A ROCK STAR |

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Will there ever be another edition of "Effective Java"? Come to this exciting presentation, and find out! And while you're at it, learn the latest in best practices for the Java™ platform and its core libraries. The presentation touches on many areas of the platform, from enum types to concurrency, to serialization. A splendid time is guaranteed for all, and the patterns and idioms you learn from this session will be directly applicable to your programs and designs.

TS-5225 Spring Framework 3.0: New and Notable

Rod Johnson, SpringSource | ALSO A ROCK STAR |

CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Advanced*

The Spring Framework is the most popular application programming framework for development on the Java™ platform and Java Platform, Enterprise Edition (Java EE platform), with widespread use across many industries. Spring enables POJO-based development in any runtime environment while making it easy for developers to access advanced enterprise services. The latest Spring release, 3.0, introduces new features and enhancements that make Spring more powerful and extensible yet even simpler to use. If you're a Spring user, you should understand these features and how they may benefit you; if you are not yet a Spring user, you may find Spring significantly more compelling.

In this presentation, Rod Johnson, the father of Spring and CEO of SpringSource, talks about some of the key new features. He explains and demonstrates

- Spring 3.0's comprehensive REST support
- The new Spring Expression Language and how it can simplify configuration
- The Spring Web stack, from Spring MVC through Spring Web Flow, including comprehensive AJAX and JavaServer™ Faces technology support
- Spring's Java platform configuration offering, introducing an internal DSL for configuration using Java technology-based annotation

Johnson shows code examples throughout the presentation, leaving attendees ready to try these new features out for themselves.

TS-5226 Using the New Capabilities of the Optimized JavaFX™ Mobile Platform

Pavel Petroshenko, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY | *Introductory*

Rich Internet JavaFX™ applications running on mobile devices with limited memory and computational power require a high-performance Java™ Platform, Micro Edition (Java ME platform) and well-tuned JavaFX runtime employing more and more software- and hardware-based graphics acceleration technologies. This session, for developers who want to get the best performance for JavaFX applications, gives an overview of new performance features of the latest-generation Java mobile platform providing JavaFX Mobile applications with compelling runtime performance. The session also gives guidelines and programming tips to help application developers take full advantage of new, exciting capabilities of the optimized JavaFX Mobile platform.

Developers will get an understanding of the performance characteristics of the JavaFX Mobile software, tips on how to maximize performance, and an understanding of what's been done to take advanatage of graphics and media hardware acceleration.

TS-5245 The Ghost in the Virtual Machine: A Reference to References

Bob Lee, Google, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

Have you ever wondered whether you should use a weak reference or a phantom reference? If you answered "yes" or "phantom who?" this is the session for you. It covers

- The java.lang.ref API
- Its gotchas and pitfalls
- New APIs that address those gotchas and pitfalls
- Reference handling patterns and best practices
- ReferenceMap: a new concurrent map with support for strong, soft, or weak keys and values
- How references relate to collections, caching, concurrency, and class loaders
- And more

Walk in with a working knowledge of the language, and walk out an expert in references, referents, reclamation, and other garbage collection necromancy.

TS-5246 Web 2.0 Security Puzzlers: Genuine Security Vulnerabilities or False Positives?

Ray Lai, Intuit

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

Using static code analysis or penetration testing tools to detect security vulnerabilities for Web 2.0 applications often yields a long list of issues. If developers are swarmed by hundreds or even thousands of "noises," they may tend to ignore any genuine security vulnerabilities.

This session uses a puzzler format to discuss recurring patterns of the top 10 Open Web Application Security Project (OWASP) security vulnerabilities on a variety of Web 2.0 online systems (portal, Web services, CRM, payroll) and discusses how to distinguish genuine security vulnerabilities from false positives, with justification based on real-life code snippets.

The security puzzlers include

- Cross-site scripting with the JavaScript™ programming language
- What's wrong with form-based authentication?
- Does the Enterprise JavaBeans™ 3 (EJB™ 3) technology-based persistence manager have SQL injection vulnerability?
- What's wrong with hard-code passwords in Spring, the Java™ Persistence API, or Hibernate config files?
- Forcing denial of services by null pointer and unreleased resources on the Java platform

TS-5253 Under the Hood: Inside a High-Performance JVM™ Machine

Trent Gray-Donald, IBM

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

Ever wondered what makes a top-notch JVM™ machine tick? Curious about how today's JVM machines scale to large-heap workloads? Come hear about IBM's experiences in building a robust JVM machine for the enterprise, and learn about some of the clever tricks that power current JVM machines. This session exposes some of the previously undisclosed deep technical details about IBM Java™ technology implementation,

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* *Content subject to change.*

showing significant detail on how the garbage collector (GC) and just-in-time (JIT) compiler are implemented.

The session is deeply technical and will definitely appeal to all those who crave to understand the details that make up an enterprise-strength JVM machine and aren't afraid of seeing a little assembly code. It is aimed at a reasonably advanced audience, educating Java technology developers in what the current state of the art is in the JVM machine.

In the session, you will learn about
- The progression of the JVM machine over the years
- GC and JIT — a major subsystem deep dive
- Serviceability: diagnostics and monitoring
- Futures: 64-bit and multicore

TS-5254 SPEC Java™ Platform Benchmarks and Their Role in the Java Technology Ecosystem

David Dagastine, Sun Microsystems, Inc.
Anil Kumar, Intel Corporation

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

SPEC has more than a decade of releasing several successful Java™ platform benchmarks, such as SPECjbb, SPECjvm, SPECjAppServer, SPECjms, and SPECpower_ssj2008. This presentation shares the characteristics of these benchmarks to make it much easier for end users to correlate them with their applications. It also discusses how these benchmarks have helped the JVM machines identify optimization opportunities, which helps a wide range of applications. Almost all JVM machines use several well-known optimizations for the Java technology ecosystem, and the session describes the impact of these optimizations on some of these benchmarks. It also covers the performance tools for collecting and analyzing this data.

Overall, the characteristics of SPEC Java platform benchmarks and the impact of different JVM machine optimizations and tools should be very valuable information for end users.

This session provides a high-level description of different SPEC Java™ platform benchmarks and how their characteristics can help them correlate with various Java technology-based applications. It is aimed at system testers and evaluators who want to correlate benchmark performance with their applications as well as users who want to understand the impact of JVM™ machine optimizations.

The session introduces SPEC Java platform benchmarks and describes
- Their characteristics
- JVM machine optimizations' impact on benchmark performance
- Their possible correlation with other applications

TS-5265 A Java™ Persistence API Mapping Magical Mystery Tour

Michael Keith, Oracle Corporation

CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Introductory*

The Java™ Persistence API (JPA) received much acclaim for standardizing the process of persisting Java technology-based objects to a relational database. One of its primary accomplishments as part of that standardization was to produce a portable object-relational mapping layer. The layer defines a set of standard O-R mappings to suit the needs of virtually any application and can be used to store objects in a variety of relational database schemas. This session surveys the simpler mappings introduced in JPA 1.0 and then moves on to some of the more sophisticated mappings added in JPA 2.0. It also offers some tips and tricks for mapping to new and legacy databases and puts forward some best practices to help new and intermediate developers make the most of JPA mappings.

The session will be of interest to any Java technology developer who may store a Java technology-based object in a relational database.

Attendees will learn
- How to use annotations to map objects to a relational database
- What the new JPA 2.0 specification is adding to the mapping layer
- When to use specific mappings and when certain mappings should be avoided
- How to make the best use of the O-R mapping part of JPA

TS-5280 JavaFX™ Platform: Animations, Timelines, and Collision Analysis for Games

Peter Pilgrim, LLoyds TSB

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

This session covers writing JavaFX™ code for the production of games. The JavaFX programming language and platform have built-in support for animation of graphics, in that they provide timelines. The presentation is based on research on writing 2-D games with the JavaFX programming language, which lends itself to games because it comes standard with a scene graph user interface library and is built for extended media support for sound and video. You probably already know that the programming language is mostly declarative in nature, but you might need to default to the imperative style from time to time.

The session discusses object-oriented progamming with the JavaFX programming language for an arcade game:
- Defining your game object
- Associating your game object with scene graph nodes
- Examining Sun JavaFX source code best practices
- Timelines, binding of variables, triggers
- Game object hierarchy
- Animating bug drones, starships, missiles, and just about everything else
- Essential collision detection
- Controlling animation paths with tweening

TS-5282 The Java™ 2 Platform, Micro Edition Mobile Information Device Profile 3.0 (MIDP 3.0)

Angus Huang, Aplix Corporation USA
Paul Su, Aplix Corporation USA

MOBILITY | *Advanced*

This session presents an overview of the new Mobile Information Device Profile (MIDP 3.0) specification. More than a simple evolution from MIDP 2.x, MIDP 3.0 represents a major step forward in design and deployment flexibility for Java™ Platform, Micro Edition (Java ME platform) technology developers.

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New features include a mandatory concurrency model with two new communication mechanisms that allow sharing of information, data, and services between executing MIDlets. Enhanced LCDUI components and lower-level graphics allow for the creation of more-complex user interfaces that are more consistent across devices. And LIBlets, a new packaging and provisioning mechanism, allow for sharing and reuse of classes between applications, enabling more-rapid development of applications.

The session covers the scope of the specification, the goals of the expert group in considering the features added and changes made, and a brief description of each of the functional areas.

The intended audience is the Java ME technology developer community as well as wireless carriers, device manufacturers, and implementers of Java ME technology.

The session covers the scope and the goals of the MIDP 3.0 specification and the new MIDP 3.0 functionality.

TS-5295 Designing and Building Security into REST Applications

Sean Brydon, Sun Microsystems, Inc.
Aravindan Ranganathan, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Advanced*

So you are considering creating some REST services to make it easy for other applications to mash up with yours. Or maybe you are considering using some existing services in your own applications. This session, for Web application developers, discusses how to design and use REST services securely. It shares some of the experiences and best practices developed in the design of the REST identity services of the OpenSSO security project. The OpenSSO REST security services are deployed and used in many popular Web sites, maybe even your bank's.

The presentation also discusses some common designs foundin investigation of the security features of some popular live REST services. Learn some techniques that will help you build and use REST services securely. It also covers some antipatterns and pitfalls to avoid. It focuses on the security aspects of building and using REST services, shares the experiences of the OpenSSO team, and provides some guidelines on building security into your own REST applications.

What you will get from this session:

- Guidelines based on real-world experience of designing and building security services for REST
- Awareness of key security vulnerablities to consider
- Practical techniques to apply in your own applications
- A collection of tips and guidelines for beginning to build REST applications securely

TS-5301 Continuous Integration in the Cloud with Hudson

Jesse Glick, Sun Microsystems, Inc.
Kohsuke Kawaguchi, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Continuous building and testing of software take the hardware resource requirement to a whole new level. This is especially so when you'd like to get a quick turnaround time on your test results, for better agility. On the other hand, maintaining a large cluster of nodes for builds/tests is still hard and tedious, and maintaining a coherent and working environment on each of the cluster nodes is even harder.

This session discusses a recent enhancement of Hudson that enables it to interface with cloud services and virtualization technologies. It enables users to improve resource utilization, reduce maintenance overhead, and also cope with sudden load spikes on the system. The session briefly introduces the lower-level libraries for interfacing with cloud/virtualization services and how Hudson interacts with the services. The presentation also includes other related enhancements in and around Hudson, such as Project Kenai (kenai.com) and NetBeans™ IDE-related enhancements in this space.

TS-5307 Building Next-Generation Web Applications with the Spring 3.0 Web Stack

Keith Donald, SpringSource
Jeremy Grelle, SpringSource

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Building modern Java™ technology-based Web applications that expose your business services to the widest-possible audience has become an increasingly difficult task in this day of AJAX, RIA, and SOA. Complexity continues to rise as we work to build flexible architectures that can serve the needs of an increasing number of client screens and a potentially exploding number of consuming devices. Spring 3.0 continues to strive to bring you effective weapons in the battle against complexity, including a complete modular stack of Web-focused solutions for addressing the needs of REST, AJAX, RIA, and stateful Web-based conversations.

In this session, you will learn how to

- Build Web applications using the RESTful Spring 3.0 @MVC annotation-based programming model
- Expose multiple representations of the same resource, including HTML, XML, JavaScript™ Object Notation (JSON), and Atom, to service multiple client types without the need for specialized handling in server-side controller code
- Use Spring JavaScript technology and the Dojo toolkit to consume your RESTful Spring resources, using unobtrusive AJAX techniques
- Easily connect your existing RESTful Spring resources to RIA technologies such as JavaFX™ technology
- Seamlessly integrate stateful Java technology-based flows from Spring Web Flow 3.0 where appropriate

TS-5314 Optimizing Java™ Platform, Micro Edition for Blu-ray Players and Interactive DTVs/STBs

Hobum Kwon, Samsung Electronics

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

The CDC/PBP-based Java™ Platform, Micro Edition (Java ME platform) has been expanding rapidly; the number of Java ME technology-based consumer electronics is rising, with increasing sales of Blu-ray players and OCAP- or MHP-ready digital TVs and

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set-top boxes. Both BD-J and interactive DTV standards use Xlet as their application model, and simultaneous running of multiple Xlet applications is very common. To run Xlet applications smoothly on DTV or Blu-ray players, a highly optimized Java ME platform is essential. This session provides techniques that can boost performance of a CDC/PBP-based Java ME platform.

The session delves into

- A unique way of profiling Java technology-based and native functions and how to detect bottlenecks by using the NetBeans™ Profiler module for Java methods and native functions simultaneously by simple modification in native APIs and the NetBeans IDE server. The presentation includes a demonstration of sample application profiling.
- Analysis of a typical Xlet application to get hints for performance enhancement of the Java ME platform.
- How to minimize garbage collection influence while running GUI applications,
- Critical tips for graphics performance on the multitasking Java ME platform, such as image rendering, lock management, and screen update.

TS-5330 Extreme Google Web Toolkit: Exploring Advanced Aspects of GWT

David Geary, Clarity Training, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

Google Web Toolkit (GWT) enables developers to implement rich user interfaces that run in a browser with a Swing-like API that will immediately be familiar to anyone who has used AWT, Swing, SWT, or a similar desktop application framework. This session, for software developers who have some familiarity with GWT, covers advanced aspects of using GWT, including implementing drag-and-drop, implementing custom GWT widgets, and integrating JavaScript™ technology and database access into GWT applications.

In the session, you will learn how to

- Effectively leverage GWT to create rich user interfaces
- Implement drag-and-drop by using GWT
- Develop custom GWT widgets
- Integrate database access into GWT applications

TS-5335 Defective Java™ Code: Mistakes That Matter

William Pugh, University of Maryland

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Drawing lessons from the FindBugs static analysis tool and eight months at Google as a visiting scientist, this session's speaker discusses programming mistakes that cause real problems in practice and presents techniques for preventing and/or catching these mistakes early. He discusses some of the elements of the Java™ programming language, libraries, and IDEs that can cause problems and offers lessons learned from them, such as the dangers of trusting refactoring tools. He also talks about mistakes that can be found with static analysis and problems that have been identified by defect postmortems and dynamic techniques.

TS-5341 Rethinking the ESB: Lessons Learned from Challenging the Limitations and Pitfalls

Keith Babo, Sun Microsystems, Inc.
Andreas Egloff, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

Traditionally, commercial integration and enterprise service bus (ESB) platforms have a reputation of being

- Big, heavy, and expensive
- Difficult to install
- Difficult to set up
- Complicated to learn and use
- A haven for lock-in

Over the last few years, a new breed of open-source, lightweight ESB contenders such as Mule, ServiceMix, and OpenESB has attempted to redefine what a productive ESB offering should look like. Although the current generation of these platforms has made significant inroads into addressing these concerns, this session details and demonstrates how the next-generation platforms are pushing the envelope further and trying to achieve the feat of simplicity and productivity while becoming more versatile.

Attendees will learn

- When using an ESB is appropriate
- What properties to look for in an ESB and how to use it to avoid common limitations
- How open-source offerings are innovating to become highly competitive service platforms
- How these service platforms are adding distribution and topology choices to go beyond the traditional understanding of ESBs

For this session, a basic knowledge of SOA and Web services is desirable.

TS-5354 Exploiting Concurrency with Dynamic Languages

Tobias Ivarsson, Neo Technology

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

The Java™ platform's support for concurrency is strong and increasingly important now that Moore's Law means more cores on a chip (parallelism) and not increasing clock speed (sequential speed). However, it's not easy to get concurrency right.

This session explores how dynamic languages such as Clojure, JRuby, and Jython can exploit the Java platform's concurrency facilities. It directly compares code samples across a range of typical scenarios: plain old threads, task execution with the executor framework in java.util.concurrent, Hadoop for map-reduce computations, fork-join parallelism, and parallel arrays (JSR 166). The presentation is opinionated: Does using these languages actually make it easier to get the best practices right? It looks at patterns on dos and don'ts (good, bad, mediocre) from "Java Concurrency in Practice" (Goetz). Last, it discusses actual performance and scalability on relevant hardware.

The session is aimed at developers and architects with an interest in dynamic languages, concurrency, or both.

Attendees will gain insight into

- Breadth and depth of the Java platform for supporting concurrency

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- How dynamic languages support concurrent programming, including concepts such as closures (blocks), generators, mutability, shared memory, message passing, and persistence
- Where and when dynamic languages encourage best practices
- Where relevant, differences between C and Java technology-based implementations of Python and Ruby for concurrency

TS-5359 The Modular Java™ Platform and Project Jigsaw

Mark Reinhold, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Why the platform — as well as applications — should be modularized, and how we're going about it.

TS-5362 The Java™ Platform, Standard Edition (Java SE Platform) Development Kit Version 7

Mark Reinhold, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session covers what's in, what's out; what's hot, what's not.

TS-5385 Alternative Languages on the JVM™ Machine

Cliff Click, Azul Systems

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

There are several languages that target bytecodes and the JVM™ machine as their new "assembler," including Scala, Clojure, Jython, JRuby, the JavaScript™ programming language/Rhino, and JPC. This session takes a quick look at how well these languages sit on a JVM machine, what their performance is, where it goes, and why.

Some of the results are surprising: Clojure's STM ran a complex concurrent problem with 600 parallel worker threads with perfect scaling on an Azul box without modification. Some of the results are less surprising: fixnum/bignum math ops take a substantial toll on the benefit of entirely transparent integer math, and a lack of tail-call optimization gives some languages fits. Some of the languages can get "to the metal," and sometimes performance takes a backseat to other concerns.

This session, for non-Java™ platform JVM machine users, is a JVM machine's-eye-view of bytecodes, JITs, and code-gen and will give you insight into why a language is (or is not!) as fast as you might expect.

This is essentially the presentation the speaker gave at the JVM Language Summit, refreshed with more recent work from the major alternative-language players. You will get an understanding of how some of these languages get mapped to a JVM machine and the issues and performance costs associated with a "less than perfect" language fit.

TS-5389 Less Is More: Redefining the "I" of the IDE

Mik Kersten, Tasktop Technologies

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Introductory*

In less than four years, Mylyn's task-focused interface has gone from a university whiteboard into the hands of hundreds of thousands of Java™ technology developers. Not long ago, the notion of a tool that hides more of the program than it shows sounded crazy. To some, it probably still does. But as Mylyn continues its rapid adoption, the numbers are making the next big step in the evolution of the IDE clearer. Tasks are more important than files, focus is more important than features, and an explicit context is the biggest productivity boost since code completion.

This session discusses how Java technology, Mylyn, Eclipse, and a combination of open-source frameworks and commercial extensions have enabled this transformation. It then reviews lessons learned for the next generation of tool innovations and looks ahead at how the "I" of the IDE is collectively being redefined.

For developers, the presentation demonstrates how the task-focused interface can be applied to their Java technology-based workday. It reviews solutions for Eclipse-based developers as well as those using other IDEs such as the NetBeans™ IDE and IDEA. It then covers how the task-focused interface has been transforming collaboration and agile project management with integrations for the leading ALM, task, and source code management solutions. To conclude, it reviews strategies for applying the technology to your entire workday to attain the full potential of the task-focused interface.

TS-5391 The Art of (Java™ Technology) Benchmarking

Cliff Click, Azul Systems

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

People write toy Java™ technology benchmarks all the time. Nearly always they "get it wrong" — wrong in the sense that the code they write doesn't measure what they think it does. Oh, it measures something all right — just not what they want. This session presents some common Java technology benchmarking pitfalls, demonstrating pieces of real, bad (and usually really bad) benchmarks, such as the following: SpecJVM98 209_db isn't a DB test; it's a bad string-sort test and indirectly a measure of the size of your TLBs and caches. SpecJAppServer2004 is a test of your DB and network speed, not your JVM™ machine. SpecJBB2000 isn't a middleware test; it's a perfect young-gen-only garbage collection test. The session goes through some of the steps any programmer would go through to make a canned program run fast — that is, it shows you how benchmarks get "spammed."

The session is for any programmer who has tried to benchmark anything. It provides specific advice on how to benchmark, stumbling blocks to look out for, and real-world examples of how well-known benchmarks fail to actually measure what they intended to measure.

TS-5395 Actor-Based Concurrency in Scala

Philipp Haller, EPFL
Frank Sommers, Artima

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

The advent of multicore processors has brought renewed interest in concurrent programming: To harness the full abilities of multicore CPUs, software must be written with concurrency in mind.

The Java™ programming language supports concurrent programming in the form of threads. The concurrency utilities

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library introduced in the Java 5 platform simplifies the use of threads, but thread-based programming still has many challenges, such as the need to ensure proper synchronization of code blocks accessed by concurrently executing threads, a source of many Java programming language coding errors.

The actor model of concurrency presents an alternative to threads in constructing concurrent software. Actor-based concurrency is a mature technology that has proven to enable programs to scale to many thousands of concurrently executing processors. Languages and frameworks that support concurrent programming with actors have become increasingly popular. Scala makes actor-based concurrency available on the Java Virtual Machine.

Copresented by the author of the Scala actors library, this session provides a tutorial introduction to Scala's actor-based concurrency on the JVM™ machine. It assumes no prior Scala experience. By the end of this session, attendees will have learned how actors simplify highly scalable concurrent software development on the JVM machine, how to employ actors effectively in their own code, how to use Scala actors with existing Java code, and about some upcoming features in Scala's actors library.

TS-5400 AJAX Performance Tuning and Best Practice

Doris Chen, Sun Microsystems, Inc.

Greg Murray, Netflix

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Advanced*

Perhaps the primary motivation for developing AJAX applications is to have a better user experience — hence figuring out how to achieve an optimized response time becomes an important aspect of AJAX performance optimization.

This session focuses on the improvement of the network transfer time and the JavaScript™ technology processing time, as the server response is already generally well understood. It uses an AJAX framework case study to show how an AJAX optimization process can be used to optimize performance. During the optimization process, it demonstrates how to measure the performance, determine the bottlenecks, and resolve the problems by applying various best practices. It demonstrates various tools such as the NetBeans™ IDE, Eclipse, Firebug, and YSlow to show when to use what and how to use them. The session presents a list of AJAX performance tuning tips on combining CSS and JavaScript technology-based resources, setting the correct headers, using minifed JavaScript technology, GZip contents, and strategically placing CSS links and JavaScript technology-based tags.

Intermediate-level AJAX and enterprise developers can really benefit from this session.

After the session, the attendees will be able to
- Apply the AJAX performance optimization process
- Choose the right tools and use them
- Leverage various best practice and performance tuning tips
- Improve their AJAX application response time ultimately

TS-5410 Drizzle: A New Database for the Cloud

Monty Taylor, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

Drizzle is a reimagining of the world's most popular database, the MySQL™ database, with a focus on being a key player in the growing world of cloud computing.

What does a database for the cloud look like? What does the cloud even mean? Why did Sun fork MySQL database? What does all of this mean for Java™ technology development?

This session answers all of these questions and more. It looks at what Sun's architecture plan is, what assumptions Sun has made, and what assumptions it is challenging.

The presentation looks at changes Sun is making to the way other things interact with databases that can have a profound effect on application development. Asynchronous queries, router-parsable sharding identifiers, and preparsed queries that can be generated directly on the Java platform with no intermediary steps are all either here or on the way shortly.

The session also looks at the the ability to extend the database server with Java technology-based plug-ins and what a combination of a Java plug-in, Google Protocol Buffers, and a fully transparent server means for the future of development. Also it gives a shout-out to the MySQL database JDBC driver for being designed to easily allow seamless support of the wholly new protocol.

TS-5413 JRuby on Rails in Production: Lessons Learned from Operating a Live, Real-World Site

Nick Sieger, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Advanced*

This session focuses on Project Kenai (kenai.com) as a case study for building and operating a live site built with the Ruby on Rails Web framework and running on JRuby, the GlassFish&trade application server, and the Java&trae; Virtual Machine as a deployment platform.

Although JRuby is not yet in widespread use, it is uniquely positioned to leverage both the innovative ideas happening in the Ruby community and the tested, reliable technologies and frameworks provided by the Java programming language ecosystem.

This session examines several ways the technologies from the two ecosystems can be mixed and matched to provide a stable and scalable, yet fast, agile, and fun-to-develop, system.

The session is for intermediate to advanced Web developers. It assumes some familiarity with the Ruby on Rails Web framework.

In the session, you will
- Study the architecture of an existing system written in a dynamic language but deployed on the Java Virtual Machine
- Learn about tools and techniques as well as trade-offs for increasing site performance and scalability
- Gain exposure to new tools and developments outside the traditional Java technology-based Web development world
- See performance comparisons and debunked myths

** Content subject to change.*

TS-5418 Building Commercial-Quality Eclipse Plug-Ins: By the Guys Who Wrote the Book

Eric Clayberg, Instantiations, Inc.
Dan Rubel, Instantiations, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Introductory*

The best way to extend the power of Eclipse-based tools is by building plug-ins, and this session provides the best education from the top experts: the guys who literally wrote the book on the subject, Eric Clayberg and Dan Rubel. In addition to introducing the basics of plug-in development, they show attendees how to add the sophistication and "polish" that end users demand. They cover the fundamentals of plug-in development, with specific solutions for the challenges attendees will most likely encounter. The session content is based on the newly released third edition of the best-selling "Eclipse Plug-ins" book, coauthored by Clayberg and Rubel. Topics range from Eclipse commands to the PDE Build process, and the presentation encompasses the Eclipse 3.4 "Ganymede" and Java™ 5 platforms.

TS-5427 Java™ Technoogy Inside-Out

John Coomes, Sun Microsystems, Inc.
Brian Goetz, Sun Microsystems, Inc.
Antonios Printezis, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Ever wondered what happens to your bytecodes when they're executed by a Java™ Virtual Machine? If so, this session will provide a taste of the many optimizations done by current virtual machines to make Java technology-based programs run faster. It discusses a few important optimizations in detail, using examples of Java code to show how the JVM™ machine makes common operations fast or how it transforms your program into something completely different that produces the same result — in less time. It also airs some dirty laundry and covers aspects of Java technology that are not well optimized, explains why, and discusses some alternatives.

Topics include

- Synchronization — why uncontended locks are (almost) free
- Compilation — how dynamic profiling, inlining, escape analysis, and other techniques enable code transformation
- Memory management and garbage collection — why allocation is fast, temporary objects are cheap, and finalization is slow
- Other optimizations — exploiting NUMA architectures, using large pages

Java technology developers of all levels will learn more about what the JVM machine does under the covers, which can help guide development and performance tuning efforts.

TS-5468 Cross-Browser Vector Graphics with the Canvas Tag and SVG

Ignacio Blanco, Google, Inc.
Patrick Chanezon, Google, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Advanced*

In this session, you will learn how to use the HTML 5 Canvas tag and scalable vector graphics (SVG) to build advanced, interactive user interfaces in the Web browser, across all the major Web browsers (including Internet Explorer!). You will be introduced to open-source JavaScript™ technology-based libraries that get SVG (svg.js) and the Canvas tag (ExCanvas) working in Internet Explorer. Learn how you can use SVG to generate smart vector graphics from server-side data, including Java™ server-side technologies such as JavaServer Pages™ technology. Find out how you can create great mobile Web applications on devices such as the Apple iPhone and Android-based cell phones, using SVG and the Canvas tag. The presenter manages the Open Web Advocacy team at Google.

TS-5487 Easily Creating Games for Blu-ray Disc, tru2way, MHP and Other TV Platforms

Bill Foote, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Advanced*

TV remote controls can be a valuable "extra" on a Blu-ray disc or a cable TV system, and they're also a great way to learn how to create other applications. It's easy and inexpensive to create a development environment that lets you burn rewritable Blu-ray discs, and play them on real BD players. These applications can also be run on a tru2way simulator to target them to the US standard cable TV platform, and to demonstrate viability on other GEM platforms, like MHP and emerging IPTV platforms.

We'll show how you can ease the programming task using the GRIN scene graph and application framework to seamlessly blend a declarative interface description with interactive programming using the Java language in order to create a fully-functional video game. We'll then show how to deploy that game onto a Blu-ray disc and to the Tru2way simulator, using free open-source tools. This game will then play on an inexpensive consumer blu-ray player, and running it on the tru2way simulator will further prove that it's cable-ready, and can be deployed on a Cable TV network.

TS-5488 The Mobile Evolution: From Java™ Platform, Micro Edition to JavaFX™ Mobile Applications

Adam Sotona, Sun Microsystems, Inc.
Petr Suchomel, Sun Microsystems, Inc.

MOBILITY • Cool Stuff | *Advanced*

Mobile devices are the space where we can see most of the Java™ platform's evolution. With Mobile Service Architecture (MSA) on one side and the new JavaFX™ Mobile platform on the other, developers get a full hand of abilities that deserve to be leveraged. This session delves into the capabilities of both platforms, development models, tools, and best practices.

It starts by explaining individual platforms' architecture, from today's standard MIDP/MSA to the coming JavaFX Mobile platform, discussing their similarities and differences as well as individual JavaFX technology-based profiles, which are important to understand when developing interoperable JavaFX Mobile applications. The session focuses on use of tooling for building these applications, with examples of setting up projects, managing shared code among projects, and deployment tips. It includes a demo in which an advanced UI application is built on both platforms to show differences in detail.

At the end of the session, you will understand how to develop and get the best from today's and upcoming mobile platforms.

TS-5494 Getting the Most from the Designers with the JavaFX™ Production Suite

Martin Brehovsky, Sun Microsystems, Inc.
Lukas Waldmann, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

The JavaFX™ Production Suite is a set of tools that helps bring rich graphics to the JavaFX platform. The tools allow exporting graphics from the professional graphics tools to the FXZ file format, and this file format can be easily loaded in the JavaFX application. By separating graphics and code, it enables effective collaboration between designers and developers. Designers can focus on creating presentation graphics for the application work in their preferred graphics environment, whereas developers can focus on creating business logic for the applications and not spending hours tweaking low-level graphics UIs. Both developers and designers typically work in parallel and can integrate their respective pieces with almost zero effort.

This session covers many features of the JavaFX Production Suite, including a deep dive into the FXD/FXZ file formats. It also discusses the workflow of the development of rich graphics applications, focusing on collaboration between designers and developers, including strategies used for such a collaboration and the benefits of a separation of the graphics and the business logic. The session provides multiple examples and demos, including delivering rich graphics to both desktop and mobile platforms as well as server-side-generated graphics.

TS-5496 This Is Not Your Father's Von Neumann Machine; How Modern Architecture Impacts Your Java™ Apps

Cliff Click, Azul Systems
Brian Goetz, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Managing software performance used to be a relatively straightforward process. Uniprocessors were the norm, the number of cycles each instruction took to execute was known, and it was mostly a matter of measuring how many instructions you were executing per unit of work — and then reducing that number. The world has changed: The cost of individual instructions varies by several orders of magnitude, depending on how close the data is to the CPU, and improvements in throughput depend on effective use of parallelism. But to design and analyze performant programs, we have to understand something about the underlying hardware and how that has changed in recent years.

For example, a cache miss may take hundreds of cycles and a cache hit only a fraction of a cycle. That two-orders-of-magnitude spread can make relatively small code changes with significant performance consequences; data indirection is more expensive than it looks. (Advances in compiler technology have mostly removed the costs associated with code indirection, but data inlining hasn't moved out of academia yet.) VMs have the opportunity to do aggressive data optimizations, such as hot-field/cold-field splitting, so this wheel may turn yet again.

This session provides an overview of the architecture of modern CPUs, how this has changed in recent years, and what the implications are for software development and performance management.

TS-5574 JavaFX™ Technology for Swing Developers

Richard Bair, Sun Microsystems, Inc.
Jasper Potts, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session covers interoperability between JavaFX™ technology and existing Swing applications or components; how to embed JavaFX technology chunks, such as animated JavaFX technology-based graphs, into Swing applications; and how to add existing Swing panels into a JavaFX application and make them animate/transition. The presentation goes into the more technical details of the advantages and limitations of mixing JavaFX technology and Swing. It also explains the correct (supported) way of mixing these, because several people have discussed this in blogs and are not doing it the right way.

TS-5575 Extreme GUI Makeover (Hybrid Swing and JavaFX™ Technology)

Amy Fowler, Sun Microsystems, Inc.
Jasper Potts, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session is a JavaOne℠ conference Swing classic with a bit of a JavaFX™ technology twist. Take an everyday Swing business application, and make it over. Start by modernizing its look and feel with Nimbus LAF. Then customize Nimbus to add some company branding. Then add a whizzy animated graph/chart written in the JavaFX programming language. The presentation will appeal to Swing developers as well as people interested in JavaFX technology. It shows what cool things people can do with existing Swing applications without having to throw away all the code they have been working on for years.

TS-5576 Introduction to the JavaFX™ Script Programming Language

Richard Bair, Sun Microsystems, Inc.
Jasper Potts, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

This session, the first of two related sessions, explains the JavaFX™ Script programming language in a simple manner, from the beginning to intermediate levels. It shows Java™ developers where the differences lie and covers all the great things that make the JavaFX programming language the best language for building rich graphical applications.

TS-5577 Introduction to the JavaFX™ Technology-Based API (Graphics and Animation)

Martin Brehovsky, Sun Microsystems, Inc.
Jasper Potts, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

This is the second session of two related sessions introducing JavaFX™ technology. It covers the JavaFX technology-based libraries for graphics and animation. It goes through the material with simple slides explaining how the scene graph works and how to use it, while building a demo application in stages, adding functionality as it covers each new part of the API.

** Content subject to change.*

TS-5578 The New World: JavaFX™ Technology-Based UI Controls

Amy Fowler, Sun Microsystems, Inc.
Jasper Potts, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

This in-depth session covers the new JavaFX™ platform UI controls. It discusses the basics, such as how to use them and how to lay them out, through to more-advanced topics such as theming, skinning, and creating your own custom controls and layouts. Talking to people at three conferences and feedback from blogs shows this to be Java™ technology developers' No. 1 most-asked-about feature.

TS-5579 Nimbus: Making Swing Look Sexy!

Jasper Potts, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session discusses how to make your Swing application look modern and elegant across all platforms with the new Nimbus look-and-feel introduced in JDK™ release 6u10. It explains how to customize Nimbus so that you can brand and theme your applications for your company's brand, from simple cases such as changing color themes through to a complete new look-and-feel.

TS-5587 AJAX Versus JavaFX™ Technology

Dion Almaer, Ajaxian, Inc.
Ben Galbraith, Mozilla

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The JavaFX™ platform and AJAX are both stories of redemption; AJAX redeemed tired old Web interfaces, whereas the JavaFX platform promises to redeem applets — and breathe new life into Java™ technology on the desktop. Although they are at the edges, both of these platforms have specific use cases that suit them entirely well, and there is indeed a large middle set of use cases where either of these platforms can be used to create compelling user interfaces. Ben Galbraith and Dion Almaer, who host this session, leverage both their expertise in Java desktop technologies as well as their experience with AJAX to compare and contrast the two platforms.

TS-5588 Creating Compelling User Experiences

Dion Almaer, Ajaxian, Inc.
Ben Galbraith, Mozilla

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java technology for the desktop | *Introductory*

Each year developers gain access to ever-more-impressive technologies for rendering advanced user interfaces and generally doing more cool stuff. But what's the secret to leveraging these technologies to create applications that users truly love? Join noted AJAX and desktop gurus Ben Galbraith and Dion Almaer in this session as they discuss how to create fantastic user experiences in software.

TS-5809 Producing High-Quality Video for JavaFX™ Applications

Jim Bankoski, On2 Technologies

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

The adoption of the On2 video codec on the JavaFX™ platform makes high-quality rich media possible in any JavaFX application. Equally important, the On2 decoder is built into the JavaFX runtime itself, which means that On2 video is the only format that is guaranteed to play in a JavaFX application no matter what kind of device it is running on. On2 on the JavaFX platform truly is encode-once, play-anywhere.

This session demonstrates how to create a basic RIA on the JavaFX platform, using On2 Flix encoding tools. It elaborates on

- How we got to where we are (Nullsoft, Flash, the user-generated-content revolution)
- Unique features and benefits of On2 (real-time encoding, low decoding complexity, feature set).
- Samples of On2 video, from handheld to HD.
- Encoding best practices for target devices (mobile, Web, HD). If you're encoding "once" for "play anywhere," does this imply that you can't use these best practices?
- Encoding On2 video for the JavaFX platform in On2 Flix Pro and On2 Flix Cloud.
- Playing the video in a sample JavaFX technology-based player on a Web page.

TS-6263 Device Fitness Testing

Yael Wagner, Sun Microsystems, Inc.

MOBILITY | *Introductory*

One time-consuming challenge a content developer faces is the need to know that a device supports the content. Sun is launching the Java™ Device Test Framework (JDTF), a testing framework that enables developers to write and distribute a set of tests a device needs to pass if it is to support the content in question.

A NetBeans™ IDE plug-in enables test development in the NetBeans IDDE and a simple porting into JDTF.

In addition, JDTF includes

- Readiness Test Pack — a set of tests that enables you to "detect" which JSRs are implemented on the device
- Defragmentation Test Pack — tests that were developed based on input from developers describing inconsistent (fragmented) behavior across devices

This session shows how to develop and use JDTF. Immersion (www.immersion.com/mobility_developer/), which is using JDTF to develop tests for its heptic implementation and will distribute them to OEMs and carriers, is taking part in the presentation.

TS-6591 Mobility and Device General Session

MOBILITY | *Introductory*

This session discusses the evolution of and the latest trends in the Java™ Platform, Micro Edition (Java ME platform). It highlights several cutting-edge mobile data services in the market and demonstrates how developers can take advantage of new capabilities in the Java ME platform to build compelling services for the mobile, television, and embedded markets. Come to this must-attend talk to hear what is now available and what is coming soon to the mobility and consumer space.

TS-6592 Sprint Titan (JSR 232 OSGi): Bringing Mobile into the Mainstream

Jay Indurkar, Sprint Nextel

MOBILITY | *Advanced*

Sprint will be the first carrier to release a JSR 232 (OSGi)-based Java™ platform into the mobile market. OSGi has taken the Java technology-based server world by storm and is now the dominant SOA component platform for Java technology-based servers. Sprint Titan brings those same capabilities to the mobile device, completing the promise of a single Java platform, from mobile to enterprise server.

This presentation covers the basics of the Titan platform, including the new Rich Mobilenet Application architecture, which brings the kind of power found in Google Gears or Adobe Air to the mobile Java platform.

TS-6726 Contexts and Dependency Injection for Java™ Platform, Enterprise Edition (Java EE Platform)

Gavin King, RedHat

CORE TECHNOLOGY: Java EE Technology | *Introductory*

This session covers the Contexts and Dependency Injection (JSR 299) specification, which defines a set of services for the Java™ Platform, Enterprise Edition (Java EE platform) environment that makes applications much easier to develop. JSR 299 layers an enhanced lifecycle and interaction model over existing Java technology-based component types, including the Enterprise JavaBeans™ (EJB™) component model. As a complement to the traditional Java EE technology-based programming model, Web Beans services provide:

- An improved lifecycle for stateful components, bound to well-defined contexts
- A type-safe approach to dependency injection
- Interaction via an event notification facility

TS-6734 From Parking Meters to Netbooks: Java™ Platform, Standard Edition 6 for ARM-Based Devices

Bob Vandette, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Introductory*

New ARM CPUs in both single and multicore packaging are coming to market with greater than 1-GHz clock speeds. These processors are being used in a wide variety of devices, ranging from intelligent parking meters to wearable uniforms, to netbooks. These CPUs have the processing power to support the full Java™ Platform, Standard Edition 6 (Java SE 6 platform) stack, but to fully utilize the benefits of these processors, customization beyond a simple port is required.

This session covers the requirements and challenges in Sun's full port of the Java SE 6 platform (including Swing, the Java HotSpot JIT client compiler, and the latest Java technology-based plug-in) to the ARM architecture for the embedded market. It discusses the various ARM architectures and options and the modifications, such as performance optimizations, power management, memory optimizations, and modifications required to support alternative window managers, desktops, and browsers, required to take full advantage of this processor family. It also discusses specific areas of customization and their impact on Java technology developers. The session includes a demo and covers future directions for Java SE for Embedded on ARM.

TS-6735 Building a Java™ Technology-Based Automation Controller: What, Why, How

Greg Bollella, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

Java™ technology has always been disruptive, and now it's breaking the mold in industrial, process, building, and transportation automation systems. For many years, programmable logic controllers (PLCs), the digital versions of old relay-based control systems (such as that used in the New York City subway system in the late 1800s) have primarily controlled these systems. PLCs are the workhorse of the controls industry, but the market is characterized by proprietary, closed, expensive, special-purpose solutions. A Java technology-based automation controller breaks the mold, by allowing control algorithms, which require strict real-time capabilities, to run on essentially off-the-shelf, general-purpose computers and operating systems. A Java Automation Controller (JAC) is made possible by the Java Real-Time System, an implementation of JSR 001, the Real-Time Specification for Java.

This session covers the requirements, components, and issues of a building a JAC, including hardware and real-time software: OS, networking, Java Real-Time System, and control application. Details of Sun's Java Automation Controller are covered as an example of a JAC.

TS-6765 MobiTV: Creating Effective Mobile Content Now and in the Future

Do Hyun Chung, MobiTV

MOBILITY | *Introductory*

It's all about content these days. Short commercials, movie trailers, live TV, and even full-length movies. Content is king. On their mobiles, people can watch a newsbreak with the last-minute goal, live news, nature on the Discovery Channel, or the latest episode of "The Simpsons." If you have content, you want to show it on as many mobiles as possible. If you have a development technology, you want it to host as much content as possible. And what's more natural than doing it with Java™ Platform, Micro Edition (Java ME platform)?

This presentation focuses on how MobiTV managed to put its content on a variety of Java platforms. For low- to midrange devices, MobiTV used the Java Technology for the Wireless Industry (JTWI) specification to Mobile Service Architecture (MSA), specifically JSR 135, and also the Lightweight User Interface Toolkit (LWUIT) to build a varied offering of its mobile TV service. Taking a first step into the future, the session shows how MobiTV opened its service to high-end platforms and created a visually compelling UI with the JavaFX™ language. The final part of the presentation demonstrates how easy it was for MobiTV to integrate its solution into the Java On Device Portal (Java ODP), using both LWUIT and JavaFX technology.

TS-6766 Real-World Processes with WS-BPEL

Murali Pottlapelli, Sun Microsystems, Inc.
Ron Ten-Hove, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

Most real-world business processes involve one or more interactions with partners, and they span a few hours to several days and have various outcomes. To implement these long-lived processes, a Web Services Business Process Execution Language (WS-BPEL) offering should support functional features such as correlation, dynamic addressing, and compensation. In addition, it should offer nonfunctional systemic quality features such as recovery, redelivery, throttling, and scalability.

Even though WS-BPEL is a powerful language for orchestrating Web services, it falls short for implementing real-world processes.

This session shows how to model a real-world long-lived process. It illustrates this with the open-source BPEL implementation in GlassFish ESB. It deep-dives into the aforementioned functional and nonfunctional features that are crucial in designing a long-running business process. And it also presents the challenges faced by GlassFish ESB users and the extensions Sun has added to support them, namely

- Access to headers — SOAP(or protocol-specific) and security credentials (subject, principal, and credentials)
- Attachments
- Dynamic addressing
- Extensions to assignment and XPath expressions

TS-6802 Hadoop, a Highly Scalable, Distributed File/Data Processing System Implemented in Java™ Technology

Sanjay Radia, Yahoo

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

The Hadoop system provides a distributed file system and a framework for processing very large amounts of data with the MapReduce paradigm. An important characteristic of Hadoop is partitioning and moving computation close to its data. The system scales horizontally for compute capacity, storage capacity, and I/O bandwidth by simply adding low-cost commodity servers. Hadoop is in production use at Yahoo! in several clusters, each containing two to four thousand machines holding several petabytes of data, and in smaller clusters at many other organizations around the world. Hadoop is available via an Apache open-source license.

Hadoop is implemented in Java™ technology. Although Java technology has provided challenges in memory efficiency, efficiency in the I/O path, and efficiency in processing large amounts of raw data, Java technology has been an important factor in the stability and reliability of the system and in the ability of a small group of engineers to build, in a span of three years, a fairly sophisticated distributed system that provides reliable and scalable storage and data processing.

Learn more in this session.

TS-6816 MIDP 3.0 In Depth: Tutorials and Demonstrations

Lakshmi Dontamsetti, Aplix Corporation USA
Stan Kao, Aplix Corporation USA
Roger Riggs, Sun Microsystems, Inc.

MOBILITY | *Advanced*

This session presents an in-depth look at some of the significant new functionality being introduced in Mobile Information Device Profile (MIDP) 3.0. The presentation offers an overview of new Liquid Crystal Display User Interface (LCDUI) components and functionality, the new LIBlet mechanism, the new MIDlet communication functionalities such as Inter-MIDlet communication, and the event package. It also includes tutorials with code examples and demonstrations of the functionality.

TS-6989 Building Real-Time Systems for the Real World

Mike Fulton, IBM Canada

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Introductory*

As computers get faster and society becomes more “plugged in,” application programmers are demanding highly responsive systems. Although providing very high throughput will always be a requirement, the need for systems to perform consistently, even under high stress, is becoming a growing concern across a wide range of industries. This session describes the steps IBM has taken to provide these highly robust systems, from hardware through the operating system to the Java™ Runtime Environment. These steps include interrupt elimination, OS-level SMP scheduling, ahead-of-time compilation, class loading changes, and real-time garbage collection.

The session also discusses the tooling and middleware being used to build these responsive systems. These middleware solutions include the Tuning Fork tool, for tuning, and Rhapsody, for real-time modeling. IBM has also investigated applications such as real-time Web services and a real-time SIP server. Finally, the presentation includes a few words about the work on safety-critical Java technology and the non-NHRT (no-heap real-time thread) version of the Real-Time Specificaiton for Java (RTSJ).

TS-7072 Rich User Interfaces for Java™ Platform, Micro Edition (Java ME Platform) Devices

Enrique Garcia, Sony Ericsson
Alexander Klintström, Sony Ericsson

MOBILITY | *Introductory*

As mobile phones are becoming more capable and providing exciting new services, the need to present these services with advanced user interfaces becomes more important. For a long time, the Java™ Platform, Micro Edition (Java ME platform) domain has lacked advanced solutions for rich user interfaces and developers had to write their own frameworks on top of the Mobile Information Device Profile (MIDP) APIs. The situation has changed lately, with several alternatives for rich user interfaces for Java ME technology-capable devices.

In this session, Sony Ericsson discusses two exciting solutions for building highly interactive, rich interfaces: the JavaFX™ Mobile programming language and Project Capuchin. Both solutions produce a similar result, but they have different advantages. The session offers a comparison of these technologies, together with several live demos and code examples.

PAN-4502 JavaFX™ Technology and the Applications Ecosystem: JavaFX Technology Can Help You Make Money

Jacqueline Chang, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

This session addresses the following questions:

- What is the JavaFX™ technology ecosystem
- How do you monetize from JavaFX technology
- Why should you choose JavaFX technology over other RIA technologies

PAN-4670 Why the Java™ Platform Matters in Higher Education

Gerard Briscoe, London School of Economics
Barry Burd, Drew University
Rommel Feria, University of the Philippines
Bob Jacobsen, University of California - Berkeley
James Robertson, Univ of MD University College

MOBILITY • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

In this panel, participants discuss issues surrounding the Java™ platform in high school and university curricula. The session starts with very brief presentations by members of the panel, after which attendees participate in an open roundtable discussion.

The specific discussion topics are as follows:

- How is the Java platform — Java Platform, Micro Edition (Java ME platform); Java Platform, Standard Edition (Java SE platform); Java Platform, Enterprise Edition (Java EE platform) — currently being used in schools?
- As educators, how do we introduce and enforce best practices related to security, coding style, and standards in students studying the Java programming language?
- How should we teach computer engineering using the Java platform?
- Which techniques work, and which are counterproductive?
- What are we trying to instill in students, and how does Java technology help?
- What changes do we envision in computing curricula over the next three years?
- What roles should emerging technologies (such as rich media and mobile apps) play in the core computing curriculum?
- How does the increasing use of multicore CPUs affect Java technology education?
- What role should dynamically typed languages play?

This session is for educators, professional trainers, and anyone else who is interested in Java technology education.

PAN-5210 Blu-ray and Java™ Technology Roundtable

Ivar Chan, Trailer Park
Bill Foote, Sun Microsystems, Inc.
Joe Rice, MX Production Services

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

This session is an open, participatory discussion of the Blu-ray Java™ platform, focusing on how to use the technology and the opportunities it will bring. Please be prepared to tell a little about yourself and why you're interested in Blu-ray. The presenters want to hear from you. They are ready to talk about what the last year has seen as BD-J and BD-Live has continued to proliferate, what they see in their crystal ball and why they think this is a great opportunity for the Java community to open up new frontiers. They can also talk about the tie-in with other television delivery platforms — MHP, GEM-IPTV, OCAP — and about how your entertaining Blu-ray titles could make it on cable.

PAN-5336 MSA 2: How Do We Work Toward a Consistent Java™ Platform?

Calinel Pasteanu, Sun Microsystems, Inc.

MOBILITY | *Advanced*

This panel discussion addresses MSA 2, how we work toward a consistent Java™ platform, and what we can expect from future mobile devices.

The panel of experts covers the evolution of the Mobile Service Architecture (MSA) through spec reviews, the features you can now expect on devices, and what will be possible with MSA 2 and MIDP 3 as its basic building block in the future. How is the MSA Expert Group working toward a consistent platform to fight the fragmentation we faced in the past? What is the decision-making process for new features you can expect on MSA 2 devices? How can developers get engaged and influence the further roadmap of the platform? Find out how you can get the scoop on upcoming features and be prepared early on to develop the right applications to support them.

Panelists: Kay Glahn, Erkki Rysa, Patrick Curran, and the MSA 2 Expert Group: Aplix Corporation, AT&T, China Mobile Communications Co. Ltd., Ericsson AB, Esmertec AG, IBM, Intel Corp., LG Electronics Inc., Motorola/Mike Milikich, Nokia Corporation, NTT DoCoMo, Inc., Orange France SA, ProSyst Software GmbH, Research In Motion, Ltd. (RIM), Samsung Electronics Corporation, Siemens AG, Sony Ericsson Mobile Communications AB/Christopher David, Sprint, Sun Microsystems, Inc./Calinel Pasteanu, T-Mobile Austria GmbH, Telefonica Moviles Espana, TeliaSonera AB, Vodafone Group Services Limited

PAN-5348 Script Bowl 2009: A Scripting Languages Shootout

Roberto Chinnici, Sun Microsystems, Inc.
Thomas Enebo, Sun Microsystems, Inc.
Rich Hickey, Clojure
Guillaume Laforge, SpringSource
Martin Odersky, EPFL
Raghavan Srinivas, Intuit
Frank Wierzbicki, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

In this session, the scripting languages that run atop the JVM™ machine are represented by their gurus. They duke it out to become the most popular scripting language among the widely used languages by doing a set of timed common tasks in the respective languages. This is followed by a timed free-format round that highlights the coolness aspect of the particular language. This session is a sequel to the highly popular Scripting Language Shootout of the 2008 JavaOne℠ conference, and the audience participates in selecting the winner.

cont. >>

* Content subject to change.

Scripting language gurus returning from 2008 are Groovy, JRuby, Jython, and Scala. This year there is also a new kid on the block: clojure.

After attending this fun-filled and technically invigorating session, attendees will be able to judge for themselves which scripting language is appropriate for their technical and business needs. They will also be able to compare and contrast the respective languages and possibly provoke some thought-provoking discussions among the panelists that will be beneficial to the audience in general.

PAN-5366 Cloud Computing: Show Me the Money

Jeff Barr, Amazon.com
Jeff Collins, Intuit
Adam Gross, salesforce.com, Inc.
Simon Guest, Microsoft
Gregor Hohpe, Google, Inc.
Raghavan Srinivas, Intuit
Lew Tucker, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff • Tools and Languages | *Introductory*

Is cloud computing more of a myth than a reality? Is it old wine in new bottles and merely a glorified term for "the network is the computer"? What do "infrastructure as a service," "database as a service," "platform as a service," and "software as a service" really mean? What about the technologies and the monetization from a Java™ technology developer perspective?

In this session, a panel of experts from various companies that have cloud offerings attempts to tout the benefits of the respective technologies to Java technology developers, demystify the terminology associated with cloud computing, and discuss the challenges ahead. Each panelist gives a minimal presentation, followed by a "new and cool " demonstration.

After attending this panel, attendees will walk away with a good understanding of the differences in technologies of the different cloud offerings and what it means to them as Java technology developers.

A group of four or five panelists from among Amazon, Google, Intuit, Microsoft, salesforce.com, and Sun Microsystems is expected to participate.

PAN-5388 Making Music with the Java™ Programming Language

Frank Greco, NYJavaSIG

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Advanced*

Musicians and software developers are kindred spirits. Developing algorithms and implementing them seems to be quite similar to developing a music score and playing it.

What most Java™ technology developers don't realize is how effective the Java programming language is at creating music. It is quite a rich language for developing applications that compose, generate, and play music. There are some great musical applications written in the Java programming language, such as jMusic, Impro-Visor, JFugue, JMSL, and Vaudeville.

In this session, a panel of musicians, composers, and Java technology developers discusses and demonstrates various musical applications written with the help of the Java programming language.

BOF-3794 Apache Tapestry: State of the Union

Howard Lewis Ship, Independent Consultant

CORE TECHNOLOGY: Java EE Technology | *Introductory*

This session, for current and potential Tapestry developers, is a chance for the Apache Tapestry community to meet and discuss Tapestry 5's current state and future directions. Tapestry 5 has been in development for more than two years; this is a chance to see what the next year may bring from the Tapestry development team and from the Tapestry community in general. It's also a great chance to provide direct feedback to the Tapestry team concerning the many new and innovative features in Tapestry 5.

BOF-3820 Lift: The Best Way to Create Rich Internet Applications with Scala

David Pollak, Lift Web Framework

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Introductory*

Lift is an expressive, elegant framework for writing Web applications. It stresses the importance of security, scalability, and performance while enabling high levels of developer productivity. Lift applications, written in Scala and deployed as WAR files, offer very high performance and are being deployed in organizations from popular Web 2.0 companies to SAP. In this session, David Pollak, Lift's lead developer, gives an overview of Lift and demonstrates its advantages for building rich Internet applications.

This presentation is intended for Web application developers and architects who want to learn about leading-edge technologies on the JVM™ machine.

In this session, you will
- Learn a new approach to building Web apps
- Understand how Scala changes Web development
- See Flash/HTML RIAs in action

BOF-3826 The Collections Connection (Gala Tenth Edition)

Joshua Bloch, Google, Inc. | ALSO A ROCK STAR |
Kevin Bourrillion, Google, Inc.
Martin Buchholz, Google, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

If you're a fan of the Java™ Collections Framework API, this session is for you. It starts with an overview of proposed additions to the Java Collections Framework API for the next release of the platform (version 7) and an overview of the Google Collections Library. Then you can ask programming questions, design philosophy questions, or any other questions you may have. People who want to discuss interesting things they've done with the Java Collections Framework API are, as always, encouraged to attend.

BOF-3904 Java™ Champions, Java User Group Leaders, and NetBeans Dream Team Discussion with Sun Software

Reginald Hutcherson and 3 or 4 JUG Community Leaders and Java Champions

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

This Birds-of-a-Feather session is dedicated to the Java™ User Group (JUG), Java Champion, and NetBeans Dream Team communities, engaging in a discussion with Sun Software executives about the "State of the Java technology union." The session gives community leaders a chance to have a direct one-on-one discussion with Sun Software executives about Sun's current and future involvement with various communities in the Java technology ecosystem. Additionally, there may be discussion about what's on the horizon for Sun Software product teams. Expect a candid and frank conversation between a panel of community leaders and Java technology experts and the Sun Software management team.

Sun Director of Developer and Technology Outreach Programs Reginald Hutcherson leads this discussion with a panel of three or four JUG Community Leaders and Java Champions. The 20-minute panel discussion is followed by a 30-minute open-mic Q&A session, which includes Sun Software executives.

BOF-3952 Enterprise Web 2.0 Architectures: From Pristine Java™ EE Platform to Fully Loaded Frameworks

Alberto Lemos, Globalcode
Vinicius Senger, Globalcode

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

Web 2.0, AJAX, OSGi, SOA, security, various programming languages, high performance, scalability: Is your project ready for the next wave of Web applications? This session presents an updated view of enterprise concepts and frameworks and proposes five Java™ Platform, Enterprise Edition (Java EE platform) technology-based architectures for Web 2.0 projects incorporating them:

1. Basic Java EE 5 Technology-Based Architecture: JavaServer™ Faces technology, etc.
2. Advanced Java EE 5 Technology-Based Architecture: JavaServer Faces technology, Java Persistence API, etc.
3. JBoss Seam Architecture: Web services, session beans, etc.
4. Spring Architecture: Security, AOP, etc.
5. Umbrella Architecture: Seam and Spring, etc.

Each proposed architecture is scored in terms of
- Performance and scalability
- Required team skills
- Tools and productivity
- Community and/or commercial support
- AJAX and RIA capabilities
- Security
- OSGi
- SOA
- Mashup, REST, CAPTCHA, conversation, and multitab support

The session enables attendees to
- Evaluate and apply five solid Java EE 5 technology-based architectures
- Analyze deeply the source code of each architecture, available as an open-source project

This session is based on the speakers' solid experience as instructors and business consultants, and these architectures have been proposed and implemented in many of their consultancy projects.

** Content subject to change.*

BOF-3979 The Groovy and Grails BOF: With Live Grails Podcast Recording!

Sven Haiges, Technical Engineer
Glen Smith, Bytecode Pty Ltd

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

Join the hosts of the Grails podcast (www.grailspodcast.com) for an hour of fun talking to the key project leads and committers in the Groovy and Grails community. The session includes discussion and Q&A with key members of the Groovy, Grails (Web), and Griffon (Swing) communities — including the usual antics of the Grails podcast crew: news, giveaways, and highly opinionated comment.

The intended audience is Groovy and Grails developers and all those keen to explore the buzz in the dynamic languages community by hearing directly from project committers. The session includes an opportunity to pose questions to the panel of interviewees, hear dynamic language implementation success stories, discuss tooling, and see the roadmaps for what's coming up in the Groovy and Grails landscape.

Presently confirmed interviewees are Guilluame Laforge (Groovy project lead), Graeme Rocher* (Grails Project lead), and Dierk Koenig ("Groovy in Action" author). *if their JavaOne℠ conference presentations are accepted.

In this session, you will
- Hear interviews with key project leads
- Discuss roadmaps for Groovy, Grails, and Griffon developments
- Hear success stories of dynamic language implementations on the JVM™ machine
- Ask questions directly to hear opinions from thought leaders in the Groovy and Grails space
- Get excited by dynamic language options on the JVM machine for both Web and rich client development
- Win books and prizes!

BOF-3980 Using Embedded Containers for Enterprise JavaBeans™ 3Technology-Based Components

David Blevins, Apache
Reza Rahman, Cognicellence

CORE TECHNOLOGY: Java EE Technology | *Introductory*

This session is a hands-on introduction to using embedded containers for Enterprise JavaBeans™ 3 technology-based components (EJB™ containers). Unlike full-scale application servers, embedded containers are EJB 3 technology-based implementations that run inside the same JVM™ machine instance as the client application. The ever-growing list of embedded containers for EJB 3 technology-based components include Apache OpenEJB, ObjectWeb EasyBeans, Embedded JBoss, and Embedded GlassFish™ application server.

The session outlines the various uses for embedded containers, including robust EJB 3 technology-based unit testing, adding EJB 3 technology-based functionality to Java Servlet containers such as Tomcat and Jetty, and using EJB 3 technology inside desktop and command-line applications. A demo will show you, step by step, how to implement each of these scenarios. The demo code uses OpenEJB, Tomcat, JUnit, and Eclipse.

BOF-3990 Signing Java™ Platform, Micro Edition Applications and the Renewed Java Verified Program

Risto Helin, Nokia

MOBILITY | *Introductory*

Signing Java™ Platform, Micro Edition (Java ME platform) applications solves problems and creates a better user experience. The Java Verified program, which has been THE signing program for Java ME technology-based applications, has been renewing its service portfolio. Come to this session, and learn what kind of new opportunities the program is now offering.

BOF-3992 Meet the Team Behind JWebPane, and Learn Advanced Tips and Tricks

Artem Ananiev, Sun Microsystems, Inc.
Alexey Ushakov, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

This BOF with the JWebPane team covers advanced usage of the component and implementation details and includes an extended Q&A session..

BOF-4027 The SAT Framework: Unleashing the Power of Selenium, ANT, and TestNG

Aditya Dada, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Advanced*

The SAT (Selenium-ANT-TestNG) framework provides an effective open-source solution for creating and executing GUI-based tests.

This framework uses the power of the Selenium open-source solution to record tests and export them as Java™ technology-based files. These Java technology-based tests are then altered to add hooks from TestNG, which provides the power to group tests through annotations, along with a built-in HTML reporter. Finally, ANT, an easy-to-use build tool, provides the glue that holds the framework together and makes it possible to run tests with a single command. Using this solution proves to be a very powerful way of organizing your tests, especially smoke tests that can be automated to run every night as soon as the build is released.

This session takes you, step by step, through the SAT framework and explains strengths and weaknesses of each of the components, along with workarounds to cover potential pitfalls. It draws experiences and learnings primarily from Project SocialSite, where engineering and quality teams are extensively using the SAT framework to test their open social gadgets and SocialSite widgets.

BOF-4050 Your Code, Your Community . . . Your Cloud: Project Kenai

John Brock, Sun Microsystems, Inc.
Sharat Chander, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Introductory*

The emerging market of cloud computing offers developers a wide spectrum of solutions for improving application development productivity. It also provides them with new and evolving resources and services for building and growing out online communities.

In this BOF, developers will get to meet the Project Kenai team from Sun Microsystems; learn about new cloud initiatives at Sun; learn how to take advantage of Project Kenai itself as an enabler for growing out their code base; and connect, communicate, and collaborate online with line-minded and equally passionate developers.

Attendees will also learn how to use best practices to start and manage their project hosting on Kenai, administrate collaborative services, and propose new features directly to the team supporting Project Kenai.

BOF-4112 JSR 325: A New (Standardized) Way of Communication

Martin Johansson, Ericsson AB
Niclas Palm, Ericsson AB

MOBILITY | *Introductory*

JSR 325, IMS Communication Enablers (ICE), is defining a high-level API for IMS communication enablers such as presence, group list management, and instant messaging (IM). JSR 325 is based on existing specifications developed by the mobile industry and IMS community in 3GPP and OMA. IMS applications using JSR 325 will thus be able to interoperate with other IMS applications based on the same set of standard specifications.

An application developer using JSR 325 can, in a standardized way, develop a chat service for the mobile community with billions of users. If the developer, in addition to JSR 325, also uses JSR 281, it will be possible to develop a rich application that also uses speech and streaming video.

This session starts by giving the audience a brief overview of different communication enablers exposed in ICE. It describes some very cool applications that can be created with this JSR and also shows, with source code, how these can be implemented with the ICE API in a few steps. The session includes a demonstration of ICE's functionality on JSR 325-enabled wireless devices. Ericsson will make the reference implementation available under open-source license to enable early development of JSR 325-enriched applications before commercial JSR 325 devices are available.

The audience will leave this session inspired by the newly exposed ICE functionality and eager to develop a new kind of mobile applications.

BOF-4135 Java™ Programming Language Tools in JDK™ Release 7

Maurizio Cimadamore, Sun Microsystems, Inc.
Jonathan Gibbons, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

The Java™ Language Tools team has been busy working on features that will appear in JDK™ release 7. In addition to primary features such as modules, annotations on types, and small language changes, the team has also been working on significantly improving the diagnostics generated by the compiler, parallelizing javac, and improving the implementation of generics. This session presents these features and provides an opportunity to discuss them with the team members.

BOF-4146 Writing a JavaServer™ Faces 2.0 Component That Uses AJAX: It's Easy! (Really, It's Easy.)

Jim Driscoll, Sun Microsystems, Inc.
Ryan Lubke, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

The JavaServer™ Faces 2.0 platform includes a new way to build components out of existing parts that's as simple as arranging them on a page. It also includes new functionality for effortlessly integrating AJAX into your applications, with either a JavaScript™ programming language call on an event handler such as "onclick" or a JavaServer Faces technology-based tag.

This session goes through the process of creating a component using these two new features. In less than 40 minutes and 100 lines, you'll have a fully reusable component you can use in any JavaServer Faces application.

The presentation assumes that you have a basic understanding of the JavaServer Faces platform and of a bit of the JavaScript programming language. Knowledge of AJAX isn't required — that's part of what makes these features so exciting.

BOF-4163 Beginning JavaScript™ Programming Language for Java™ Technology Developers

Jason Lee, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

These days a vast array of Java™ technology developers are writing applications for the Web, but the majority seem to have little knowledge of the lingua franca of the Web, the JavaScript™ programming language. Web users today demand an increasingly dynamic and exciting user interface in Web apps, so it would behoove every developer to understand this very powerful and flexible language. This session takes an introductory look at the JavaScript programming language, covering the following topics:

- Variable and function scope
- Objects, classes, inheritance, prototypes, etc.
- Document Object Model (DOM) handling
- Browser events
- Closures
- Anonymous functions
- The module pattern
- Testing

This session won't make you an expert, but it will lay a solid foundation for moving your Web applications into the modern era.

BOF-4344 Test Tools BOF

Frank Cohen, PushToTest

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Tools and Languages | *Advanced*

This BOF session covers Java™ technology-based testing tools for rich Internet applications (RIAs), SOAP- and REST-based Web services, and service-oriented architecture. Java technology developers have been encouraged to use and understand end-to-end development technologies, from JavaFX™, AJAX, Flex, and SOAP/REST technology-based interfaces on the front end to Java Platform, Enterprise Edition (Java EE platform), database, and enterprise service bus (ESB) technology on the back end. Developers, testers, and operations managers wonder how to test all this stuff. This BOF is a meet-up for Java technology developers working with HTMLUnit, Selenium, soapUI, TestGen4Web, TestMaker, Glassbox, and other open-source test tools.

BOF-4355 Using REST and Web Services to Mash Up Communications Capabilities

Elena Fersman, Ericsson AB
Peter Yeung, Ericsson AB

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

This session introduces, from a developer's point of view, a solution that simplifies the use of communications capabilities such as instant messaging, presence, voice-over-IP (VoIP), SMS, and WAP push. The presentation describes mashup interfaces based on REST and Web services with SOAP and includes code samples and demo applications developed with Java™ technology, PHP, JavaScript™ technology, and AJAX. Metro is used as the Web service stack, and the applications can be deployed on the GlassFish™ application server and Tomcat.

Attendees who want to get the most out of this session should have a basic understanding of Java technology and Web development.

Key points of the session:

- How to use Web services with SOAP to access communications capabilities in Java technology-based enterprise applications
- How to use REST interfaces to access communications capabilities in PHP applications
- How to use JavaScript technology and AJAX on Web pages to mash up communications capabilities

BOF-4383 Meet the Java™ Deployment Team

Gustavo Galimberti, Sun Microsystems, Inc.
William Harnois, Sun Microsystems, Inc.
Craig Newell, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Java™ Plugin and Java Web Start software, the Deployment Toolkit, and Java technology-based installers are just a few of the projects brought to you by the Java Deployment team. Come to this session to meet the team and hear what it has recently delivered in these and other areas, as well as what's in store for JDK™ release 7 and future JDK release 6 updates.

This session is for anyone interested in deploying Java Platform, Standard Edition (Java SE platform) or JavaFX™ technology-based content. It provides an overview of the Java Deployment team's activities and a chance to meet the team and pose questions to the experts.

BOF-4394 Case Study: Managing a Large Web Service Project Based on Java™ Technology

Manoj Kumar, Oracle USA
Vaibhav Lole, Oracle, Inc

CORE TECHNOLOGY: Java EE Technology | *Introductory*

We have come a long way in building tools/IDEs that make developers' lives easy when they are building Web services. In demos we see Java™ technology-based classes, stateless EJBs, or even PL/SQL procedures being exposed as Web services with probably a click of a button or some minimal changes in the existing code. But the reality is different, even for reasonably complex projects. This presentation describes the real problems faced in designing and maintaining the Web service interface for a large set of APIs.

The session is for anyone who develops, designs, and architects Web-services-based applications.

In the session, you will learn about

- The steps in building a Web service
- Usage of doc/literal/wrapped and doc/literal/bare and what to choose
- Which path to take: Java technology to WSDL or WSDL to Java technology; how to manage interoperability
- Problems with Java Architecture for XML Binding (JAXB) binding, schema generation, SCCD, and build cycles
- Interaction with BPEL, with a combination of synchronous and asynchronous calls

BOF-4413 Integration of Web Services Stack in an Enterprise Service Bus

Wen Zhu, Model Driven Solutions

SERVICES: SOA Platform and Middleware Services | *Advanced*

Web services support, especially support for Web services based on the Java™ API for XML Web Services (JAX-WS) specification, is a basic requirement for an enterprise service bus (ESB). An ESB typically fulfills this requirement by integrating a Web services stack, such as the Metro project or Apache CXF. Using three open-source ESBs (OpenESB, ServiceMix, and JBossESB) as examples, this session covers options for integrating an ESB with a Web service stack and the implications for services deployed on the ESB. ESB/Web-services-stack integration can be challenging, because although a Web services stack provides both an external HTTP endpoint and a container for the Java technology-based Web service implementation, those responsibilities are typically separated in an ESB. How an ESB can address this challenge is the focus of this presentation, whose goal is to help architects and developers understand how JAX-WS and ESB technologies work together in a SOA and how, as composite application designers, they can leverage Web service support in a particular ESB platform.

This session is intended for architects and developers involved in developing enterprise SOA solutions.

Key points:

- Web service stack as part of BC: OpenESB-Metro integration approach

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- Web service stack in both BC and SE: ServiceMix-CXF integration approach
- External Web service stacks: JBossESB-JBossWS integration approach
- Application design implications
- WS-* Support in ESB

BOF-4418 Meet the Java™ Posse

Joe Nuxoll, The Java Posse
Carl Quinn, Google, Inc.
Dick Wall, Navigenics, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

The Java™ Posse is a popular weekly podcast with news and interviews related to the Java technology world. In this BOF session, you'll meet the four hosts of the show as they record a situation report from the JavaOne℠ conference. The Java Posse consists of Tor Norbye (Sun Microsystems), Carl Quinn (Google), Joe Nuxoll (Navigenics), and Dick Wall (Navigenics).

BOF-4424 Advanced Debugging and Profiling on Java™ Technology-Enabled Devices

Iddo Arie, Sun Microsystems, Inc.
Roy Ben Hayun, Sun Microsystems, Inc.

MOBILITY • Tools and Languages | *Advanced*

This BOF, for intermediate to experienced attendees, covers the variety of SDKs and debugging tools available and how to use them wisely and overcome their shortcomings. It will help developers make the most of the existing tools support and includes live demos of debugging and profiling on various real devices.

There are different monitoring tools, such as performance and heap analyzers, but they have been available only on the WTK, not on real devices. Since last year, Sun has been aggressively pushing its on-device tooling strategy with leading operators and OEMs. This session demos recent advances in this area, such as Java™ Platform, Micro Edition (Java ME platform) SDK 3.0 on-device debugging with a Windows Mobile device; debugging and memory profiling on LG devices, with a Sprint-branded toolkit; and how to fully exploit OEM-specific SDKs, such as Nokia and SEMC, and their on-device debugging abilities.

For cases lacking a standardized solution, the session suggests creative methods for monitoring/debugging. It is rich in technical details, with code examples and live demos on emulator and real devices.

You will get
- Better understanding of how to debug
- Insights into the internals of VM tooling technology
- Practical examples of debugging and memory profiling on real devices
- Creative monitoring/debugging methods
- Exitement!

BOF-4434 Hacking JRuby

Ola Bini, ThoughtWorks

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

In the last few years, JRuby has become the most significant Ruby implementation around, and it's also a language engine that uses the JVM™ machine to its best. JRuby uses advanced techniques for performance optimization, runtime just-in-time compilation, and several other techniques. The internals are still object-oriented and very approachable.

This presentation takes a look at the internals of JRuby, what you can do with it, and how you can extend JRuby to do new things. Hacking language implementations is fun, and with JRuby it is easy. The session shows several examples of what kind of things you can build based on JRuby — including Duby and Rubiq. The presentation also shows how domain-specific languages can be created that are backed by a Java™ technology-based domain.

BOF-4455 Swing Application Framework Update

Alexander Potochkin, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session takes an in-depth look at aspects of the Swing Application Framework that will fundamentally change the way desktop applications are defined. It focuses on views, tasks, resource injection, and actions, as well as future plans. It covers these topics with detailed examples and demonstrations of how to build Swing desktop applications.

BOF-4464 2008: The Rise of Mobile Scripting

Roy Ben Hayun, Sun Microsystems, Inc.
Assaf Yavnai, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff • Tools and Languages | *Introductory*

In 2007 Ruby MRI was first ported to mobiles and JRubME was first run on a mobile; in 2008 we played with the idea of PHP scripting on mobiles. It was still early, but we felt something was missing. In 2008 mobile scripting finally landed, and now mobile scripting is all over the place! Mobile Ruby, JRubME, PHP, Nokia's WidSets and Web Runtimes, Python, Web Widgets, Sprint's Titan, shell scripting . . . you name it.

This session shows how an open-source scripting language designed for producing dynamic Web pages and known for rapid application development, high performance, and wide community support can be fit into the mobile devices world. The presentation covers various scripting languages that run in different application models and their uses on different mobile platforms. It mixes in discussions of commercially successful scripting environments and jazzes it up with wacky open-source pilot projects.

Attendees will discover the virtues of scripting languages and their chances of entering new domains. They will also see the connection to the widespread Java™ Platform, Micro Edition (Java ME platform) language, which will make this entry softer, and learn where OEMs, developers, and users can benefit from a new, powerful player on the field.

What you get:
- Zoom-out view of scripting languages on mobiles
- Practical, hands-on examples of successful scripting applications
- Enlightenment: mobile scripting is a must-have skill in 2009

BOF-4470 Spring ME: Unleashing Spring to the Rest of the Platform

Wilfred Springer, TomTom

MOBILITY • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

Spring is omnipresent, but not really. Until recently Spring was pretty much restricted to Java™ platforms supporting reflection. That basically ruled out Java™ Platform, Micro Edition (Java ME platform), Google Web Toolkit (GWT), and a couple of other platforms.

This presentation discusses Spring ME (http://springframework.me/). ME not only because it runs on the Java ME platform but also because it really is a microscopic implementation of Spring. In fact, the size of the runtime required is exactly 0 bytes.

The session explains Spring ME, talks about the difference from "classic" Spring, and talks about its strengths and limitations. Expect the session to be sprinkled with Java ME Platform and Java Platform, Standard Edition (Java SE platform) and GWT demos. (And better yet, bring your own!)

http://springframework.me/

BOF-4483 Java™ Platform, Enterprise Edition 6 (Java EE 6 Platform) Community Discussion

Roberto Chinnici, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Introductory*

In this session, the specification leads and several expert group members for JSR 316 discuss the contents and new features of the the Java™ Platform, Enterprise Edition 6 (Java EE 6 platform) with the community. Bring all of your questions! They also welcome ideas on the direction for the (not-yet-announced) Java EE 7 platform and its component technologies, as well as all comments about the future evolution of the platform. Should more profiles be defined? More scripting languages be supported? More technologies be mercilessly pruned? Grand new JSRs be started? Tell the speakers!

BOF-4520 "Availability Management for Java™," JSR 319

Jens Jensen, Ericsson AB
Peter Kristiansson, Ericsson AB

CORE TECHNOLOGY: Java EE Technology | *Introductory*

"Availability Management for Java™" will provide an API enabling an external availability framework to supervise and control an application server and thus achieve higher availability for enterprise applications. This will greatly benefit applications in banking, business systems, revenue management, defense, and so on. The external availability framework decides the distribution, controls activation/deactivation, and monitors the health of applications and server instances. Important requirements of the JSR are that it must be possible to use different availability frameworks to supervise the applications and the server instances and that applications can be either aware or unaware of the availability management. Even applications that are unaware should gain availability.

This session describes the concepts of "Availability Management for Java" and shows you the open-source project for the reference implementation (RI) and Technology Compatibility Kit (TCK). It also codes examples of how an application can gain from the JSR's new features to improve an application's availability.

Attendees who want to get the most out of the session should have an understanding of Java Platform, Enterprise Edition (Java EE platform).

Key points of the session:
- The concepts of "Availability Management for Java"
- How "Availability Management for Java" can improve availability for enterprise Java technology
- Code examples of how applications can use the new API

BOF-4535 Maximizing Your FPS in Java™ Platform, Micro Edition Technology-Based Applications

Viktor Martensson, Sony Ericsson

MOBILITY | *Advanced*

Rapid UI response is crucial in many mobile games and applications today. Getting an extra-high frame-per-second ratio can give a game a real kick in perceived quality. This presentation shows how to design applications to be able to render 2-D graphics as quickly as possible. Among the topics covered in this session:
- Repaint strategies
- Performance of primitive drawing
- Managing images
- Cost of transparency

BOF-4537 GEMs in the Living Room

Amir Amit, Sun Microsystems, Inc.
Assaf Yavnai, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

All new cable and digital TV standards use Java™ technology at their core. In this session, discover a great treasure that sits in your living room: GEM. The GEM standard, based on Java technology, is common to all popular media distribution standards, such as OCAP (North America), MHP (Europe), and BD-J (Blu-ray devices). Digital set-top boxes and Blu-ray devices will become commonplace in the near future, putting strong Java technology-enabled computation platforms into every living room.

This session explores the capabilities of GEM and the benefits it brings to developers. Specifically, it concentrates on an innovative usage: converting a cable operator network into a cloud computing setup in which each set-top box becomes a computational node. It also shows how the unique Java technology capabilities allow for the construction of a cloud architecture and provide developers and operators with new opportunities.

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* Content subject to change.

The session also explains the basic concepts of cloud computing and how they are fulfilled in this concept, and it presents examples of both the concept and possible applications.

BOF-4548 JavaFX™ Technology for TV: That Other Screen in Your Life

Ronan McBrien, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

The JavaFX™ platform is a family of products for creating rich Internet applications (RIAs) across all the screens of your life. After the launch of the JavaFX Mobile platform and the JavaFX platform for the desktop last year, this time its TV's turn.

This session aims to show how compelling JavaFX applications can be written for TV with little effort. It presents the basic APIs required to develop cool and portable JavaFX "common" applications suitable for execution on mobile and TV and focuses on unique TV-related issues.

Come see how the world of TV is opened up to JavaFX technology developers — it has never been easier! Attendees should have basic knowledge of Java™ Platform, Micro Edition (Java ME platform) technologies and ideally some JavaFX technology experience.

BOF-4550 Developing/Testing Accessible Java™ Technology-Based Applications in the NetBeans™ IDE

Tomas Musil, Sun Microsystems, Inc.
Jaromir Uhrik, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Introductory*

Accessibility is a very important feature of all Java™ technology-based applications, because the existing law (U.S. Section 508 or EU Mandate 376) mandates that applications be accessible to people with disabilities. Java technology-based applications can use the Java Accessibility API (JAAPI).

This presentation shows how developers can create accessible Java technology-based applications, what kind of issues they can resolve, and how the accessibility of Java technology-based applications can be tested in the NetBeans™ IDE, along with a demonstration of how the JAAPI is supported in the NetBeans IDE. It also demonstrates features of existing NetBeans IDE-based A11Y plug-ins that help developers make their applications accessible.

BOF-4551 Lightweight User Interface Toolkit (LWUIT): Meet the Developers

Shai Almog, vPrise LLC
Chen Fishbein, Sun Microsystems, Inc.

MOBILITY | *Advanced*

Since the Lightweight User Interface Toolkit (LWUIT) was announced, at the 2008 JavaOne℠ conference, it has taken the Java Platform, Micro Edition (Java ME platform) world by storm. It seems like the LWUIT project has hit a nerve in the Java ME technology industry. Come to this session, a free-style BOF intended for LWUIT developers, to meet the team and ask questions.

BOF-4554 From Annotations to Unit Test Code Generation

Jacques Brawerman, Petrobras

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This session explains how to generate code from annotations. The presentation uses a real, useful example consisting of JUnit test class generation from Hibernate validation annotations. The intended audience is Java™ technology programmers who are using annotations but don't know if they work internally and who would like to create their own annotations or add functionality to other programmers annotations.

The session answers the following questions:
- How do you create an annotation?
- How do you generate code from an annotation?
- How do you generate JUnit test classes from annotations?
- How do you optimize the generated code?

BOF-4558 Creating Professional Rich Client Applications

Jan Stola, Sun Microsystems, Inc.
Jiri Vagner, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

In this BOF, you will learn how to get the best out of Matisse (a NetBeans™ IDE GUI builder) to design professional GUI applications. The first part concentrates on best practices for creating an attractive UI that has a cross-platform layout, utilizes advanced custom components, and is fully localizable. The second part shows how to easily integrate individual forms into a solid framework. Finally, the presentation demonstrates a quick way to connect the GUI to an enterprise back end that includes Web services and a database.

This session is intended for anyone experienced in GUI development (preferably in some IDE) who wants to see practical hints regarding common problems that arise in the area of GUI creation.

BOF-4560 Inside the Sun Java™ Real-Time System

Eric Bruno, Sun Microsystems, Inc.
Bertrand Delsart, Sun Microsystems, Inc.
Antonios Printezis, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Advanced*

The real-time garbage collector (RTGC), which comes as part of the Sun Java™ Real-Time System, is a nonblocking, nongenerational, fully concurrent mark-and-sweep collector with no stop-world pauses. It's also an extremely low-latency collector that operates in bounded time for all operations and operates within a set range of priorities to help achieve predictable behavior. This is not an easy accomplishment, and this session outlines the specific algorithms involved in its implementation. It summarizes other GC algorithms, as well as the Henriksson thesis for GC, on which this implementation is based, to give the attendees a complete understanding of the issues involved. At the end, attendees will have an appreciation of the complexities of GC in general and within a real-time environment, while gaining an understanding of how the Sun Java Real-Time System performs its RTGC magic.

BOF-4561 NFC (Near Field Communication) and Contactless Communication API (JSR 257) for Mobile Phones

Alexey Chekmarev, Sun Microsystems, Inc.
Boris Ulasevich, Sun Microsystems, Inc.

MOBILITY | *Introductory*

Near Field Communication (NFC) is a new efficient technology for short-distance communications between electronic devices such as mobile phones. According to ABI Research, there will be more than 450 million NFC-enabled cellular phones in 2011, representing nearly 30% of handsets shipped worldwide in that year.

NFC offers attractive new services for mobile communications. Possible use cases utilizing that technology:

- Retrieving data from smart posters with RFID tags (multimedia content or event information from advertisements)
- Automated SMS and voice services
- Mobile phone payment (a phone as an electronic wallet)
- Ticketing operations (a phone as an electronic ticket)
- Authentication/identification (a phone as an electronic key)

The contactless communication API (JSR 257) is a Java™ Platform, Micro Edition (Java ME platform) package that enables mobile phone applications to discover and exchange data with contactless targets such as RFID cards and tags with operating distance up to 10 cm. Besides offering compatibility with existing RFID technologies, the API supports a data packaging format (NDEF), defined by NFC Forum, that allows communication with any physical target aware of that data format.

BOF-4576 Demonstration of Electronic Health Records (EHR) on Java Card™ 3.0 Technology-Based Devices

Nicolas Anciaux, INRIA
Jean-Jacques Vandewalle, Gemalto

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Advanced*

This session describes and demonstrates (with a live demo) a French-funded project that experiments with decentralized electronic health records (EHRs) on Java Card™ 3.0 technology-based devices. This project will be experimentally deployed in mid-2009.

The project relies on a secure microcontroller with a large NAND Flash memory embedded in a USB key form factor. In addition to the Java Card 3.0 platform, the device runs a database management system (DBMS) to manage the data of the EHR stored in the Flash memory. The Java Card 3.0 platform's Web server capabilities provide forms that allow for accessing and updating of the EHR stored in the embedded database.

Finally, the session demonstrates an embedded application server with a Web front end and a DBMS supported by the Java Card 3.0 platform. It also demonstrates the synchronization between a central server and the decentralized EHRs on devices.

BOF-4595 Insights into Java™ Platform, Standard Edition, and JavaFX™ Platform Performance

Robert Strout, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Do you have questions about Java™ Platform, Standard Edition (Java SE platform) or JavaFX™ platform performance? Throughput? Latency? Startup? Tuning? Other performance concerns?

In this session, everyone is encouraged to bring and share their performance-related questions, issues, and observations. Members of Sun's JavaFX™ and Java SE platform engineering teams will be on hand to field questions. Everyone is encouraged to share their own answers and experiences. The session is meant to be a two-way open discussion of performance.

All levels, beginning to advanced, are welcome!

BOF-4611 Grizzly 2.0: Monster Reloaded!

Jean-François Arcand, Sun Microsystems, Inc.
Oleksiy Stashok, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology | *Advanced*

The Grizzly Project is an open-source, Java™ technology-based framework that can be used to create high-performance client and server applications. Over the last four years, the speakers have worked and learned with the open-source community to define and improve their original Grizzly framework. The result is amazing: Grizzly 2.0, the power of a community! Grizzly 2.0 is a completely new framework built from scratch with all the great ideas the community has come up with since 1.0. Enter the revolution!

Grizzly 2.0 proposes an improved client- and server-side API that lets developers easily implement custom network protocols with minimum knowledge about Java NIO, AIO (NIO.2), or even Sockets. This session introduces the new API and functionality added in 2.0. Then it demonstrates how other Grizzly modules (WebServer, Comet, Servlet Container) build on top of the core framework and shows how easily and quickly you can build a full asynchronous event-driven proxy. Next it discusses and demonstrates new features such as slabs memory management, streams, smart codec, OSGI support, JDK™ release 7/AIO support and multiprotocol port unification. Finally, it compares the performance of Grizzly 2.0 with that of release 1.9 and other available NIO frameworks.

BOF-4638 Cloud Computing and NetBeans™ IDE Enable Army Research Lab's Next-Generation Simulation System

Ronald Bowers, Army Research Laboratory
Dennis Reedy, Elastic Grid LLC.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Introductory*

This presentation provides an overview of how the Army Research Laboratory's (ARL's) MUVES 3 project is using cloud computing and the NetBeans™ IDE rich-client platform (RCP). It reviews the MUVES 3 architecture, along with the Java™ technologies that are used to develop it. The session also shows how the combination of a NetBeans IDE RCP client application with a dynamic, service-oriented architecture (SOA) back end can be used to construct sophisticated, high-performance environments. It also discusses the MUVES 3 team's experiences in performing continuous integration by using Hudson and testing the system on Amazon's Elastic Compute Cloud with Elastic Grid.

ARL analyzes combat system survivability and munition lethality against enemy systems. The goal of the MUVES 3 project is to develop an integrated environment to support this analysis mission. On the server side, the MUVES 3 system must be capable of executing concurrent simulation jobs,

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supporting a large analyst community. Although national security concerns prohibit running an actual MUVES 3 analysis on the cloud, the system architecture can be tested on it. This enables ARL to test MUVES 3 and evaluate system performance, scalability, and fault tolerance across numerous computers cost-effectively. The NetBeans IDE RCP provides the framework on which the MUVES 3 user interfaces are built. It is used both as a client platform to the cloud and as a client to the massively scalable simulation system.

BOF-4679 Java™, the Internet of Things, and the Sun SPOT

Randall Smith, Sun Microsystems, Inc.

CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

Are you interested in how Java™ technology can be used to create new embedded applications? This session briefly introduces the Sun Small Programmable Object Technology (Sun SPOT), a small wireless sensor/actuator platform programmed entirely in the Java programming language, and presents the latest work in the Sun SPOT project. Attend the session to discuss the larger questions of how such platforms enable new approaches to embedded programming. How can small, power-limited devices store data "in the cloud," communicate with each other at globe-spanning distances, and get the most useful information to the user? Can or should Java technology programmers think of a vast collection of devices as a single entity?

The session includes numerous demos of Sun SPOT projects, and you are invited to share your own relevant demos (be they based on Sun SPOTs or not).

BOF-4682 Performance Comparisons of Dynamic Languages on the Java™ Virtual Machine

Michael Galpin, eBay, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

It is an exciting time for developing applications that run on the Java™ Virtual Machine (JVM™ machine), because you have more choices than ever. You can take your pick of languages such as Python, Ruby, Groovy, and Scala for writing your applications while still leveraging the power of the JVM machine. However, what are the performance trade-offs? This session, for developers who want to use alternative languages on the JVM machine, looks at implementing various algorithms in each of these languages and compares how well they perform on the JVM machine. It discusses the characteristics of each language and how they influence performance results. It also throws in pure Java technology-based implementations of these algorithms as well as "native" performance for languages such as Python and Ruby. Some of the results can be very surprising.

Benefits of the session:

- Learn about your language options on the JVM machine
- See code samples of the same algorithm in different langauges
- Compare the performance of these languages with each other and with the Java programming language
- Learn about how these languages are implemented and how that affects language choice

BOF-4702 Mobile Phone in Continuous Glucose Monitoring

Irvin Ye, Sun Microsystems, Inc.

MOBILITY • Cool Stuff | *Introductory*

This session covers the potential of using an RFID-enabled phone in continuous glucose monitoring for diabetics. It shows the rich functionality a Java™ Platform, Micro Edition (Java ME platform) technology-empowered mobile phone can provide. As a breakthrough in diabetes treatment, continuous glucose monitoring has been ready for clinical physicians. Building such a system around an RFID-enabled mobile phone has also been tested in the lab. No commercial off-the-shelf products are available yet, but there's hardly any obstacle technically. It may be used in clinics soon.

Java ME technologies (with JSR 257 as a key component) can enable the system with stronger abilities, such as real-time glucose values collection and display, setting off an alarm when hypoglycemia or hyperglycemia happens, and using a bolus calculator. The application may run in the background or idle screen and may switch into the foreground in response to certain events or user actions.

This session is intended for Java ME technology and mobile phone developers. As a father of a girl with diabetes, the speaker wants to attract mobile phone manufacturers, medical equipment manufacturers, and medical staffs.

The session covers

1. Using RFID-enabled mobile phones in continuous monitoring
2. Java ME technologies that will enrich the functionality of the system
3. JSR 257 used for data exchange with a glucose sensor
4. Main features of the system
5. Implementation issues, sample codes, and demo

BOF-4707 JideFX: Bringing Desktop Richness to the Internet

David Qiao, JIDE Software, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

It is a critical moment for both desktop and Internet technology. With the formal release of the JavaFX™ platform last December, the two technologies are merging for the purpose of bringing the same user interface richness to all kinds of users, whether they are on a desktop, a Web browser, or a mobile phone.

JIDE Software provides a huge number of Swing components that are used widely among enterprise applications. This presentation takes a deep look at integrating Swing and JavaFX technology to bring JIDE to the JavaFX technology/RIA world by introducing JideFX. It touches on several popular topics in modern user interface design, such as docking framework, dashboard, animation, and advanced table features.

If you are a JavaFX technology developer who wants to bring data richness to your JavaFX application or a Swing developer who wants to expose your traditional Swing applications to Internet users, you will find this presentation extremely helpful.

BOF-4724 Monitoring and Troubleshooting Java™ Platform Applications with JDK™ Software

Mandy Chung, Sun Microsystems, Inc.
Tomas Hurka, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Introductory*

Common problems in a Java™ Platform, Standard Edition (Java SE platform) technology-based application are linked to critical resources such as memory, threads, classes, and locks. Resource contention or leakage can lead to performance issues or unexpected errors that are difficult to diagnose. You may encounter these problems in production or during development. JDK™ release 6 provides you with monitoring and management capabilities out of the box to help you diagnose these common problems on the Java SE platform.

In particular, the Java VisualVM tool is new JDK graphical troubleshooting software that provides the ability to generate and analyze heap dumps, thread stack traces, track down memory leaks, and perform and monitor garbage collection activities. In addition, it provides the lightweight CPU and memory profiling capability that enables you to monitor and improve your application's performance.

This session gives an overview of the common problems that Java SE technology-based applications may run into, including memory leaks, finalizers, deadlocks, and synchronization issues and their associated symptoms. It then demonstrates how the JDK troubleshooting software can help diagnose each problem's source.

BOF-4738 Medical Instrument Systems Middleware with SOA, OpenESB, and GlassFish™ V2 Application Server

Haridas Puthiyapurayil, Abbott Laboratories

SERVICES: SOA Platform and Middleware Services • Cool Stuff | *Introductory*

Clinical data exchange and middleware system integration involves clinical service providers, instrument vendors, and clinical software solution providers. This demands a framework for a patient-record-result exchange infrastructure that can support interconnections among these components and enable them to collaborate in an efficient and effective manner. The project this session discusses implements a middleware application for medical instruments, using service-oriented architecture (SOA) that enables device data exchange from various instruments with multiple data standards. The middleware application runs on the GlassFish™ V2 application server and takes full advantages of the OpenESB platform and Java™ 2 Platform, Enterprise Edition (J2EE™ platform) technologies.

The session brings out the following key points:

- The project explores the potential benefits of using OpenESB and J2EE technologies in medical/hospital labs' middleware systems.
- Use of SOA for building laboratory information systems can have a significant impact on the cost of clinical data delivery and exchange by preserving and extending current system investments.
- The project addresses some of the key issues for establishing an interoperability framework or creating a building block that uses vendor-independent technologies, with a combination of XML and Java Architecture for XML Binding (JAXB) technologies.

BOF-4739 Integrating Java Card™ 3.0 Technology into the Desktop Environment

Sebastian Hans, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

One of the promises of Java Card™ Platform 3.0, Connected Edition, is to minimize or even eliminate the amount of specialized middleware necessary for integrating smart cards into the desktop environment. This session discusses how Java Card technology can be integrated into the IP network, provide security services to applications, act as an ID token in Web services, and play an active role in the deployment of the device itself. The presentation shows how this can be done by leveraging existing standards and already deployed technologies from IETF and Liberty, thus enabling the seamless integration of Java Card technology into Web services and desktop applications.

The session covers

- How to integrate Java Card 3.0 Platform, Connected Edition, into an IP network
- How to integrate Java Card 3.0 Platform, Connected Edition, as an identity provider into a Web services environment
- How to implement Web services that can be hosted on the Java Card 3.0 Platform, Connected Edition, and consumed by desktop applications

BOF-4743 A Lightweight Approach to Port JDK™ Software GUI Library to Unsupported Mobile/Desktop Devices

Andrei Dmitriev, Sun Microsystems, Inc.
Roman Kennke, aicas.com
Mario Torre, aicas.com

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies | *Advanced*

This presentation consists of two parts:

Part 1 states the issue: when it's usually required to make a GUI work on a specific device (desktop or mobile) and what is expected from the video system to successfully port the GUI to it. It discusses the process, gives guidelines on how developers can take part in OpenJDK development, and gives examples of successful cooperation in the OpenJDK community.

This discussion is from the vantage points of a Sun employee and an external contributor. The caciocavallo project took a bronze at the 2008 Innovator's Challenge (code name "Portable GUI backends"). The session includes two speakers who are CLASSPATH developers and project leads on openjdk.java.net.

Part 2, which is longer, goes more deeply into technical details, gives advice, and uncovers pitfalls, using as examples the porting of GUI libraries to some unsupported desktop and mobile environments in a current OpenJDK project.

Finally the session discusses how Sun and outside developers can work together to achieve their goals and what Sun can do for external contributors within such projects.

BOF-4746 Runtime Update of Java™ Technology-Based Applications, Using Dynamic Class Redefinition

Allan Gregersen, University of Southern Denmark

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This BOF looks at full dynamic module updates on the NetBeans™ platform, showing how extensive changes to the code of running application modules can be made on the fly. A demonstration of changes to the class inheritance hierarchies of active classes reveals a so-far-unseen power in the field of dynamic update at the application level. In addition, standard development practices are unaffected and programmers do not have to provide additional information to the underlying update mechanism, which leaves the update almost completely transparent, although still very flexible.

The expected audience for this session is intermediate to advanced Java™ technology developers.

In this session, you will learn
- That true dynamic update is possible on the Java platform
- How to apply dynamic updates to running applications
- How to reduce development time

BOF-4768 Integrating PDF into Java™ Technology-Based Workflow Systems

Simon Barnett, Independent Consultant
Nichole Boundy, Consultant

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

On this whirlwind tour of all things PDF, learn how you can harness the power of the Java™ platform to integrate the world's most popular document format into your workflow systems. This session covers the complete process lifecycle. PDF creation; editing and manipulation; and rendering, printing, content extraction, and searching: no stone will be left unturned. Whatever your interest in PDF, you will find this session packed with useful information and thought-provoking ideas. It covers multiple tools and environments, from standard client-side desktop Java™ 2 Platform, Standard Edition (J2SE™ platform) to Web services based on Java 2 Platform, Enterprise Edition (J2EE™ platform), including JavaServer Pages™ technology, ColdFusion, and GWT.

Whether you're a PDF newcomer, ready to discover the power of the combination of PDF and Java technology, or a seasoned professional, if you're interested in building PDF into your IT systems, this session will provide you with ideas, inspiration, and methodologies showing what PDF and Java technology can do for you and your company.

The session provides
- An overview of what PDF is and what you can do with it
- A firsthand demo of the tools available for handling PDF on the Java platform
- Demos of thorough, working systems spanning the lifecycle of PDF
- Much example source code for a multitude of PDF-related activities
- Exposure to many Java platform PDF technologies, commercial and open-source

BOF-4787 Piccolo2D Open-Source Community Forum: The Future of Zooming User Interfaces

Stephen Chin, Inovis

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

Piccolo2D is an open-source framework for writing zooming user interfaces (ZUIs) in the Java™ environment and .NET. It continues the tradition of the well-known Piccolo and Jazz frameworks from the University of Maryland, with the support of a large, active community.

This session tries to answer the following questions:
- How can ZUIs be applied to rich Internet applications?
- What are the common paradigms for semantic zooming?
- How do you test ZUIs?
- What features should the next major version of Piccolo2D include?
- How do Piccolo2D and the JavaFX™ platform interact?
- What is the future relationship of Scenegraph and Piccolo2D?
- How can I get involved in the Piccolo2D project?
- How do I . . . . (stump the experts with your own Piccolo2D question)

The session will be particularly valuable to Piccolo2D users and Java desktop technology developers.

BOF-4805 Spice Up Your JavaFX™ Mobile Applications with Rich Multimedia

Michael Heinrichs, Sun Microsystems, Inc.
Petr Vasenda, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

The JavaFX™ Media APIs are designed to make it extremely simple to incorporate audio and video media into JavaFX applications. It takes only a few lines of JavaFX programming language script to add audio or video into an application. A cross-platform video format is supported on all platforms, so it's possible to "encode once, run anywhere." Hence, your JavaFX multimedia application can run on a variety of devices.

This presentation demonstrates the usage of the JavaFX Media APIs, with a special focus on the mobile area. It introduces JavaFX Mobile technology-based emulator support for multimedia, discusses the limitations of the current mobile platforms, and shows rich media JavaFX applications running on several different platforms (current mobile phones/desktops/ JavaFX Mobile technology-based emulator).

BOF-4813 SwingLabs Development Update

Jan Haderka, Neat Results ltd
Alexander Potochkin, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

SwingLabs is an umbrella project for the development of advanced Swing components to be used in desktop applications and to be eventually migrated to JDK™ software itself. This session provides a year-to-year update on the development and release of version 1.0 of the SwingX library, planned during the JavaOne℠ conference. It also covers other subprojects from SwingLabs, such as SwingX-WS, JXLayer, and PDFRenderer. The main focus is on explaining the workings of the components and how to make the best use of them. Runnable demos show effects that can be achieved with the components, and code examples show best practices for using various components.

BOF-4844 Java™ and JavaFX™ Technology and the Nintendo Wiimote: Just How Much Fun Can You Have?

Angela Caicedo, Sun Microsystems, Inc.
Simon Ritter, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Advanced*

The Nintendo Wii has changed the way many people perceive computer games, shifting from the traditional console to a more natural, physically interactive experience. To achieve this, the Wii includes an innovative remote control (or Wiimote). To provide control of an on-screen cursor, the Wiimote has a special camera that can track up to four points of infrared light and report their positions in real time.

This session explores how the Wiimote can be used in ways not originally intended by the Wii designers. Example applications keep the Wiimote stationary and use it to track moving infrared LEDs, which can be mounted on a pen, a screen, or even an umbrella. Data about the position of the infrared lights can be used to control the position of images so they are always projected on a screen or to provide a virtual whiteboard environment.

The demonstrations use JSR 82 (Java™ APIs for Bluetooth), the WiiremoteJ open-source API, a Java platform library, and JavaFX™ code to drive the user interface. The session shows how JavaFX technology really is "for all the screens of your life," including ones you've never thought of.

BOF-4849 Mobile Motion and Noise Detector Application with Network Support

Péter Ekler, Budapest University of Tech.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • MOBILITY • Cool Stuff | *Introductory*

Mobile phones are basically small computers with advanced network handling capabilities and multimedia features. The capability of mobile phones depends on the built-in hardware and installed software platform, but unique applications can increase the capabilities of the device as well. People prefer devices that are able to run different types of applications, because the devices become customizable.

This session's speakers have created an application, called MobSensor, that basically turns the mobile phone into a motion and noise detector. MobSensor also has networking functions, enables multiple mobile phones to be connected to each other, and makes it possible to automatically upload alert images to a Web site. With the help of this application, a cooperative sensor network can be created with mobile devices. This presentation discusses the architecture, the algorithms, and the performance of MobSensor and also examines its requirements.

BOF-4869 JavaServer™ Faces Platform and AJAX: State of the Union

Ted Goddard, ICEsoft Technologies
Roger Kitain, Sun Microsystems, Inc.
Andy Schwartz, Oracle Corporation
Alexander Smirnov, Exadel, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Advanced*

This session brings together notable JavaServer™ Faces 2.0 Expert Group members to discuss the latest developments with the JavaServer Faces platform and AJAX in a Q&A-type setting. This is your chance to find out anything and everything about these two technologies. Joining Sun's Roger Kitain are

- Ted Goddard (ICEfaces Framework)
- Andy Schwartz (Oracle ADF Faces /Trinidad)
- Alexandr Smirnov (RichFaces [AJAX4JSF])

Each of these individuals is a JavaServer Faces 2.0 Expert Group member who has contributed to the specification.

The session is for those who want more knowledge about

- How JavaServer Faces technology and AJAX can solve real-world problems
- The latest developments in JavaServer Faces 2.0 technology and AJAX
- JavaServer Faces platform and AJAX internals

BOF-4870 JSR 326: Diagnosing Deadly Java™ Platform Problems — Future of Java Technology Forensics

Steve Poole, IBM

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

The JSR 326 Expert Group is defining a new postmortem diagnostics API that greatly improves the capacity to diagnose failing applications, especially when the failure is unexpected or terminal for the JVM™ machine. The API is intended to aid in the diagnosis of problems from today's applications right through to new problems that larger heaps and many processors will bring. This session covers the scope and practical applications of this new API and demonstrates some of the proof-of-concept tools that have been created so far. It shows how the API can help with traditional problems such as running out of heap space in the Java™ environment through to much more demanding problems such as resolving exhausted native memory or diagnosing failures in JNI™ API code.

This session is intended for Java technology developers and tools writers interested in using the new API.

It covers these key points:

- Situations in which the diagnostics API will be of use
- The range of data provided by the API
- How to manipulate the API to solve real-world problems
- The status of the API, what's happening next, and how to contribute

BOF-4878 Developing RESTful Web Services with Jersey and Java™ API for RESTful Web Services (JAX-RS)

Craig McClanahan, Sun Microsystems, Inc.
Jakub Podlesak, Sun Microsystems, Inc.
Paul Sandoz, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff • Tools and Languages | *Introductory*

Java™ API for RESTful Web Services (JAX-RS) is an annotation-driven API that makes it easy to build Java technology-based RESTful Web services that adhere to the REST architectural style. Jersey is the open-source production-quality reference implementation of JAX-RS.

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* *Content subject to change.*

This BOF discusses how to use Jersey and some features unique to the Jersey API, which adds value beyond the JAX-RS API. It includes demos that present such features as the client API, Web Application Description Language (WADL), JavaScript™ Object Notation (JSON), Spring, Atom, and Multipurpose Internet Mail Extensions (MIME) multipart support.

This is an opportunity for developers to meet the Jersey team, ask questions, request demonstrations, and discuss the direction of the Jersey project.

BOF-4880 Targeting Project Fortress, a New Programming Language from Sun Labs, to the JVM™ Machine

Christine Flood, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

JVM™ machines are being used in new, interesting, and unanticipated ways. What happens when the programming language you want to run doesn't have the same semantics as the Java™ programming language? How far can you push the JVM machine? Project Fortress has a different type system, a different threading model, and even different memory semantics. This session focuses on issues the speakers have faced and some they are still facing in writing a compiler/runtime system for a new programming language that compiles to Java™ bytecode.

BOF-4882 Java™ Technology and the Symbian Foundation: What's the Story?

MOBILITY | *Introductory*

Perhaps you're just starting out in the exciting world of mobile development and want to learn Java™ Platform, Micro Edition (Java ME platform), or maybe you already have some experience of Java ME technology-based development but just need some of those little extra tips that help the true professional stand out.

This session sets out to explore the role of Java technology in the Symbian Foundation platform and the benefits of an open-source platform model for Java technology developers.

(The Symbian Foundation is launching its activities in 2009, introducing a unified open-source mobile platform based on the Symbian OS.)

BOF-4903 A RESTful Approach to Identity-based Web Services

Marc Hadley, Sun Microsystems, Inc.

Hubert Le Van Gong, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff • Tools and Languages | *Advanced*

This session's speakers are introducing a new RESTful approach that enables identity-based Web services. This work is an adaptation of the ID-WSF specification, defined by the Liberty Alliance, to a RESTful environment. It provides a framework that will support the next generation of personalized Web 2.0 services. The benefits of such a framework are to allow for the mashup of Web services related to a user's identity while being both secure and privacy-aware.

The framework is based on the essential notion of discovering Web services that are relevant to a particular user. It covers the complete lifecycle of services such as their registration at an online component called a discovery service or the discovery of those services based on the identity of a user.

Beyond the framework itself, this project offers a software development kit (SDK) for developers, both on the consumer side and the provider side, allowing for easy development and rapid adoption. The SDKs are written in the Java™ programming language and exploit the latest features offered by Java API for RESTful Web Services (JAX-RS) and Jersey. The project also involves a reference implementation of a discovery service.

BOF-4905 JFreeChart: Surviving and Thriving

David Gilbert, Object Refinery Limited

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff | *Introductory*

This session, led by Dave Gilbert, the author and maintainer of the popular JFreeChart open-source chart library for the Java™ platform, brings together all interested parties to look at where JFreeChart is going and what can be done to better serve its users. It also discusses how to keep a free software project alive through a recession.

BOF-4926 JDBC™ 4.1 Specification Community Discussion

Lance Andersen, Sun Microsystems, Inc.

Mark Matthews, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology | *Introductory*

This BOF session brings together members of the JDBC™ Expert Group and other people interested in finding out more about the features being targeted for the JDBC 4.1 specification. Come hear the latest details about the features under consideration, and express your opinions about the JSR to the specification lead and members of the expert group.

They will use this session as an opportunity to gather input on features they should consider adding to the JDBC specification to support the latest features added to the SQL standard or that are available in other client APIs.

The JDBC 4.1 technology is being targeted for Java™ Platform, Standard Edition 7 (Java SE 7 platform).

BOF-4953 FIRST (For Inspiration & Recognition of Science and Technology): FRC-FIRST Robotic Competition

Eric Arseneau, Sun Microsystems, Inc.

Derek White, Sun Microsystems, Inc.

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

What do robots and FIRST have to do with Java™ technology? Come to this session and see firsthand what Java technology is enabling kids to do today with some cool hardware. Get to play with big competition robots and their teams.

FIRST is an organization whose mission is to inspire young people to become science and technology leaders by engaging them in exciting mentor-based programs that build science, engineering, and technology skills; inspire innovation; and foster well-rounded life capabilities including self-confidence, communication, and leadership.

Robots are cool; robotic competitions are even cooler.

What happens when you add Java technology into the mix? You come up with a winning combination that allows kids and "adults" to have a lot of fun.

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FIRST is always in need of technical mentors of all types and capabilities. How would you like to get the thrill of helping a young mind expand its horizons while having fun yourself? More than 1,500 teams, 40,000 kids, and 20,000 mentors are involved worldwide.

Come to this session to
- Find out what FIRST and FRC are
- Learn about mentoring opportunities
- Software
- Hardware
- See the robots and teams in action
- Interact with some teams and see the kids' enthusiasm

This session is intended for all comers. A couple of local teams with their robots will be there.

BOF-4958 Data Integration with Smooks: Split, Transform, and Analyze Your Data in an ESB World

Tom Fennelly, JBoss / Red Hat

SERVICES: SOA Platform and Middleware Services • Cool Stuff | *Introductory*

The ability to perform complex data integration tasks is a fundamental capability required of any enterprise servcie bus/ service-oriented architecture (ESB/SOA) infrastructure. This BOF walks through and discusses several commonly encountered data integration tasks, such as splitting, transforming, and routing of XML, EDI, CSV, JavaScript™ Object Notation (JSON), and Java&trade technology-based messages. It looks specifically at how these use cases are encountered in an ESB/SOA world and how the Smooks framework can play an effective role in solving such use cases (www.smooks.org).

This session will be of particular interest to those who encounter data integration challenges regularly and are looking for a single framework from within which they can solve many of these challenges in a consistent way.

Attendees will see how Smooks can
- Transform a range of different data sources (XML, Java platform, EDI, CSV) to a range of different data targets (XML, Java platform, EDI, CSV)
- Process message structures of any size (including huge gigabyte-size messages) by enabling you to perform 1:1 transforms or complex message splitting operations on a range of different target formats and target destination types, such as 1:n transforms
- Be extended to support new data formats, as well as new types of reusable data "visitor logic"

BOF-4982 Alice 3: Introducing Java™ Technology-Based Programming with 3-D Graphics

Dennis Cosgrove, Carnegie Mellon University
Wanda Dann, Carnegie Mellon University
Donald Slater, Carnegie Mellon University

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

This session introduces Alice 3 to attendees who want to know more about this innovative tool for introducing students to programming and to those who are interested in using Alice 3 as part of their outreach efforts. The discussion leaders, members of the Alice team, introduce Alice 3, with a special focus on its ability to transition students to Java™ technology-based programming. The session provides an arena for learning about Alice 3 and asking questions of the Alice team. Those who are new to Alice or thinking about using it get an opportunity to learn more about this tool and how it may be useful in outreach and instructional settings.

The session is intended for anyone interested in exploring innovative technologies for introducing students to programming and computer science.

The session's goals are to
- Introduce Alice 3 to the JavaOne℠ community
- Enable the JavaOne community to meet and interact with the Alice team in a friendly, informal setting
- Provide an opportunity for the Alice team to share exemplary techniques
- Discuss issues and concerns encountered in the use of Alice in various environments and educational contexts
- Provide an opportunity for those new to Alice or thinking about using it to ask questions as they determine how it may be most useful in their particular situation

BOF-4987 OSGi Get-Together

BJ Hargrave, IBM

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • CORE TECHNOLOGY: Java EE Technology • Cool Stuff • Tools and Languages | *Introductory*

OSGi adoption is quite pervasive nowadays, and the JavaOne℠ conference will be visited by numerous OSGi users. This BOF is the place for those users to get together. In the session, the OSGi Alliance provides an overview of the current work and many of the key OSGi experts will be present, so this is the chance to talk with other OSGi users and meet the people who made OSGi possible.

BOF-5004 OSGi and the Enterprise Service Bus: Friend or Foe?

Keith Babo, Sun Microsystems, Inc.
Kevin Conner, JBoss
Mark Little, RedHat
Guillaume Nodet, Progress Software

SERVICES: SOA Platform and Middleware Services | *Advanced*

Both OSGi and enterprise service buses (ESBs) promote themselves as flexible, dynamic platforms for hosting enterprise services. OSGi provides a robust modularity framework, tight encapsulation, and a service registry that encourages separation of service contract and implementation. ESBs focus on extensible component frameworks to add connectivity and application engines; standard service definitions and communication contracts; and asynchronous, message-based communication. Both platforms aim to provide a modular, extensible architecture that promotes loose coupling of deployed services.

Are these two separate paths to the same goal or complementary solutions that can be leveraged together? Recent activity in the marketplace suggests the latter. More and more enterprise service platforms are adopting OSGi: JBoss ESB, OpenESB, Service Mix — to name just a few. So what is the value that OSGi and ESBs bring to the table, and how do they align or overlap?

This session, an open discussion spearheaded by ESB and SOA platform architects, covers

cont. >>

- When OSGi alone is the right answer and when a service platform on top of such an application server or ESB can add value
- How OSGi enables a new level of modularity and dynamism for service platforms
- Whether we all need to become OSGi experts, now that many application servers and ESBs are leveraging it
- How the evolving OSGi Enterprise extensions might fit into an ESB

BOF-5009 Atmosphere: Comet for Everyone, Everywhere

Jean-François Arcand, Sun Microsystems, Inc.
Paul Sandoz, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms | *Introductory*

Atmosphere is a high-level API designed to make it easier to build Comet-based Web applications that include a mix of Comet and RESTful behavior. Today writing portable Web applications that can use the power of the Comet technique is almost impossible: Tomcat, Jetty, and Grizzly/GlassFish™ application server all have their own set of private APIs. Atmosphere builds on the success of the Grizzly Comet Framework, which was available only for the GlassFish application server.

Atmosphere leverages and builds on Project Jersey and the Java™ API for RESTful Web Services (JAX-RS). Jersey is the open resource reference implementation of JAX-RS that makes it easier to build RESTful Web services. Atmosphere and Jersey complement each other, with the goal of making it easier to build Comet-based Web applications that include a mix of Comet and RESTful behavior.

This session briefly explains what Comet is and demonstrates the power of Atmosphere by building multiple applications, starting with a simple chat, then building a Twitter-like application, and finally building an auction monitor from scratch.

Attendees will learn what Comet is and how to write portable applications by using Atmosphere.

BOF-5048 How to Use the Enterprise Service Bus Without Its Using You

David Wroton, Oppenheimer Funds

SERVICES: SOA Platform and Middleware Services • Tools and Languages | *Advanced*

I want to develop my services locally. I want to test them without having to deploy. I want to add functionality with a configuration file change. I want my service to route messages without having to parse them.

I want, I want, I want.

This session presents an approach that incorporates the advantages of the enterprise service bus (ESB) with good development practices while minimizing maintenance and deployment efforts. Creating a thin wrapper that identifies the type of XML message being sent makes it possible to create a service framework that routes messages to the correct class and method without needing to handle, parse, or otherwise know about the actual message. This allows functionality to be added with a simple configuration file change. Just as important is that it enables developers to implement simple POJOs and to unit-test without having to deploy.

This session is for developers looking to extend onto the ESB, but no specific ESB knowledge is required.

Attendees will come out of the session knowing the details and advantages of this approach and how it worked for the speakers.

BOF-5049 Scaling the Asynchronous Web

Jean-François Arcand, Sun Microsystems, Inc.
Ted Goddard, ICEsoft Technologies

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Introductory*

The asynchronous Web has arrived; now AJAX Push and Comet applications need to handle increasing numbers of users. Attend this session to discuss the scalability problems unique to asynchronous Web applications. Learn how to optimize your system with a walkthrough of a GlassFish™ application server cluster configuration. The presentation shares real-world solutions in areas including clustering, load balancing, and failover as well as client and server scalability.

The session is appropriate for all developers interested in improving the scalability of their AJAX Push or Comet applications.

Attendees will
- Share scalability problems and solutions
- Learn how to set up a GlassFish™ application server cluster
- Learn how to configure and deploy for best performance
- Learn which AJAX techniques optimize performance

BOF-5058 JRuby Experiences in the Real World

Logan Barnett, Happy Camper Studios
David Koontz, Happy Camper Studios

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Are you using JRuby? Have you had success with it? Failures? Come to this session to share your war stories with fellow JRubyists and hopefully learn a few things in the process.

The session is for developers who are using JRuby or are interested in seeing how it is being used in the real world.

In the session, you will hear a lively discussion comprising the following topics:
- Successful products launched with JRuby (the Happy Camper Studios team will be available to share its JotBot success story.)
- Failed JRuby projects and why they failed
- JRuby's role in the enterprise
- Interoperability of Java™ technology-based libraries with Ruby code
- Places where JRuby needs to improve

BOF-5063 JavaFX™ Platform RIAs Joined to GlassFish™ App Server Java™ Platform, Enterprise Edition 5 Services

Ludovic Champenois, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Introductory*

The GlassFish™ application server is a very popular application server offering database access (Java™ Persistence API), Web services hosting (Java API for RESTful Web Services [JAX-RS] Jersey RESTFul services, Java API for XML Web Services [JAX-WS]) and is standards-based (Java Platform, Enterprise Edition 5 [Java EE 5 platform] and the upcoming Java EE 6 platform).

The JavaFX™ platform, a new platform based on the Java platform, delivers rich content-based client applications (applet, standalone applications).

This session describes a few ways to connect the two worlds: a JavaFX technology-based client consuming server-side services hosted in a GlassFish application server environment.

BOF-5076 Java™ Platform, Enterprise Edition 5/6 Sun Certified Architect Exam: Theory, Practice, Real World

Humphrey Sheil, Comtec (Europe) Ltd

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Advanced*

Following on from last year's popular BOF on the Sun Certified Architect Exam, this BOF takes a deep dive into the exam while simultaneously linking it back to Java™ technology-based architecture in the real world. Over a year on from the launch of Sun Certified Enterprise Architect (SCEA) for Java Platform, Enterprise Edition 5 (Java EE 5 platform):

- How has the exam been taken up, and what is the pass rate like?
- What feedback is Sun getting from people who have passed the exam?
- What value can studying for and passing the exam bring Java technology architects?

As always, there are plenty of tips and tricks on the exam itself, and this year's BOF brings something more to the table. The presenter will select a business problem comparable in complexity and scope to one of the scenarios for Part 2 of the exam and will work through it with the audience to demonstrate how to tackle this core part of the exam successfully.

BOF-5087 All Things I/O with JDK™ Release 7

Alan Bateman, Sun Microsystems, Inc.
Chris Hegarty, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

JDK™ release 7 brings many improvements in the areas of file and networking I/O. This BOF briefly presents the new file system and network I/O APIs, in addition to support for new protocols such as Stream Control Transmission Protocol (SCTP). This BOF is a great opportunity to ask questions and discuss any aspects of file or networking I/O.

BOF-5102 New Security Features in JDK™ Releases 6 and 7

Sean Mullan, Sun Microsystems, Inc.
Vincent Ryan, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

- Are you annoyed by security warning dialog boxes?
- Are you concerned about granting AllPermission to signed Java™ Archive (JAR) files?
- Would you like to create your own certificates?
- Are you interested in using elliptic curve cryptography (ECC)?
- Would you like to be able to block signed JAR files with serious vulnerabilities?

If you answered yes to any of these questions, then come to this BOF, which describes recent security enhancements you can use today in JDK™ release 6 and some that the speakers are working on for JDK release 7 that address these and other issues. Bring your questions about your most difficult security issues and your ideas for new features, as there will be plenty of time for Q&A with expert members of the Java platform security team.

BOF-5105 Hudson Community Meet-Up

Kohsuke Kawaguchi, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology • Tools and Languages | *Introductory*

This BOF is a place for the Hudson community — including developers, users, and users-to-be — to gather and talk. The session is a discussion of the state of union of the Hudson community, where the development efforts are spent, where it needs the most improvements, and whether something in the community needs fixing.

Depending on the availability of presenters, some users will be invited to talk about how they run Hudson, some plug-in developers will talk about their experiences, and/or the presentation will discuss various interesting experiments involving Hudson.

The target audience is Hudson users and developers.

BOF-5108 Fun with Java™ Technology on Lego Mindstorms

Roger Glassey, Berkeley University
Andy Shaw, Sun Microsystems, Inc.

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

The Lego Mindstorms NXT is a pretty powerful robot kit. The NXT can even execute Java™ applications! The Java runtime for the Lego Mindstorms NXT, leJOS has a large number of APIs that are designed to help develop complicated robots pretty quickly. For example the navigation API makes it really easy and fun to create a robot that can navigate its environment. The Fun with Java Lego Mindstorms BOF will introduce the leJOS environment for Lego Mindstorms as well as talk about the architecture and APIs. Then of course what would a talk about Robots be without a couple of demonstrations to explain how things work. The intended audience of this BOF will be robot hobbyist that are new to leJOS.

Key Points
1. Introduction to Lego Mindstorms and leJOS.
2. leJOS architecture and APIs.
3. Demonstrations.

BOF-5111 The Cookie Diet: Session Encapsulation

Gary Rudolph, eHarmony, Inc.
Joshua Tuberville, eHarmony, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

Every Web application needs to solve session failover for reliability guarantees. This session discusses an approach to encapsulating the Java™ Servlet session directly into a browser cookie rather than leveraging vendor-specific session replication. The session demonstrates how this approach reduced memory requirements and supported cross-cluster and cross-data-center failover at eHarmony with no infrastructure needed.

The presentation covers an advanced topic and is intended for engineers and architects who have session failover requirements, particularly in a large cluster and/or multiple-data-center environment.

BOF-5129 OpenJDK™ Porting

David Herron, David Herron
Dalibor Topic, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

This BOF on porting OpenJDK™ to various platforms is for anybody interested in running the OpenJDK on non-x86 non-SPARC® technology-based systems.

BOF-5131 Project Wonderland: Build 3-D Virtual Worlds with Java™ Technology

Paul Byrne, Sun Microsystems, Inc.
Jonathan Kaplan, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff | *Introductory*

Project Wonderland is an open-source toolkit for building 3-D virtual worlds. With a focus on real-world collaboration and Java™ technology-based extensibility, Wonderland enables developers to create new and innovative worlds that are easy to modify and share. This BOF is an opportunity for interested developers to learn about Wonderland and its underlying technologies and also meet members of this rapidly growing community.

Topics for discussion include

- Using a 3-D virtual world for business and education collaboration
- Building high-performance, graphical applications on the Java platform with JMonkeyEngine and MTGame
- Creating scalable, persistent worlds with the Project Darkstar game server
- Exploring the cool worlds being built by the Wonderland community

The BOF is being hosted by the Wonderland team from Sun Microsystems Laboratories and features plenty of special guests from the Wonderland and Java technology-based gaming community. Learn more about Project Wonderland at http://wonderland.dev.java.net.

BOF-5150 Make Your Users Happy: Creating JavaFX™ Environment User Experiences That Work

Jindrich Dinga, Sun Microsystems, Inc.
Jeff Hoffman, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Rich and dynamic content is the key to attracting consumers to your apps on the Web. Java™ technology has been a proven technology for bringing this content online for games, banking information, file manipulation, and creative applications. In this session, the members of the Java User Experience team demonstrate some tips and techniques for creating a compelling user experience for your consumer applications.

There are many available tools, including the JavaFX™ platform (and the JavaFX Production Suite); Java Platform, Standard Edition 6 (Java SE 6 platform) Update 10+ features; the JavaScript™ programming language; and the Deployment Toolkit to help you accomplish your goals. Join in this discussion of how using these tools will affect the user experience, including how to ensure that users have the correct version of the Java platform, defining the startup sequence, and dealing with security indicators and dialog boxes.

BOF-5152 Meet the Java™ and JavaFX™ User Experience Team

Jeff Hoffman, Sun Microsystems, Inc.
Karen Stanley, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Meet the Java™ and JavaFX™ User Experience team to find out more about the parts of the Java environment experience Sun has been working on, including deployment, JavaFX technology development, security, and sample apps. Describe what you like and where your pain points are related to the Java and JavaFX technology-based user experience. Participate in the discussion to help direct the user experience of Java technology for the future.

BOF-5159 Kick-Start Your SOA with Open-Source Tools

Aaron Mulder, Chariot Solutions

SERVICES: SOA Platform and Middleware Services | *Introductory*

There's been an explosion of products and tools in the SOA space, and you've never had more options at your fingertips. This session reviews many of the key open-source options: Java™ Architecture for XML Binding (JAXB), SOAP and REST (CXF, Axis), ESBs (OpenESB, Mule, ServiceMix, JBossESB), messaging (ActiveMQ), governance (Galaxy), BPEL (ActiveBPEL, ODE), and more. It includes a quick overview of each product, backed by real-world experience, highlighting some of the criteria that might make you pick one or the other or lean toward a commercial alternative. You'll leave with the knowledge you need in order to start building out an SOA with no money down!

The session is for architects considering how to implement an SOA and looking for an introduction to the many available tools and options.

The session provides

- An introduction to key tools in many SOA-related categories
- A brief analysis of each tool, with real-world capabilities and differentiating factors
- Insight into where open-source tools fall short compared to commercial options
- A big-picture view of how you can rapidly start building an SOA with low-cost and easily available tools and some guidance on when to step up to commercial SOA stacks

BOF-5189 Griffon in Depth

Danno Ferrin, Intelligent Software Solutions, Inc.
James Williams, Code Herd

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Tools and Languages | *Advanced*

Peek underneath the covers of Griffon (a Grails-like framework for rich Internet applications), and see how it uses metaprogramming and dynamic languages to make writing a Swing application fun again. This session gives a tour of the inner workings of Griffon, from the runtime marshaling of the application and lifecycle events to the handling of MVC groups. It also addresses the build time facilities, covering familiar Grails-like features such as build events, scripts, and code generation.

Those who are thinking of developing an application with Griffon or who are simply curious about how the framework works should attend this session.

They will learn
- How Griffon creates their application, from code to Java&trade Archive (JAR) software
- How plug-ins and add-ons add modular functionality
- How the runtime lifecycle of a Griffon application works
- How Groovy's dynamic features are exploited to maximum effect

BOF-5215 The Java Persistence 2.0 API

Linda DeMichiel, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java EE Technology | *Advanced*

The purpose of this interactive BOF is to address questions about the Java™ Persistence 2.0 API and to solicit feedback and input from developers on features for future addition.

Participants include several members of the Java Persistence 2.0 Expert Group.

BOF-5221 Writing Rich Applications for IPTV

Steven Doyle, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • Cool Stuff • Tools and Languages | *Introductory*

With the inception of Internet Protocol Television (IPTV), content can be distributed and received through technologies traditionally used for computer networks. This enables developers to leverage the power of existing Java™ technologies and simplify application design and development in a TV environment.

This session aims to show how compelling Java technology-based applications can be written with little effort. It covers the basic APIs required to develop cool and portable IPTV applications with the latest tools and introduces some tips and tricks to show how simple performance optimization can be introduced for embedded devices and how applications can be developed both on devices and in an emulation environment.

The Television IS the Network. Don't get left behind. Come see how the world of IPTV is opened up to Java technology developers!

Attendees should have basic knowledge of the Java platform and Java Platform, Micro Edition (Java ME platform) and familiarity with media concepts (graphics and video).

BOF-5222 Creating Java™ Technology-Based Applications for Mac OS X: Is It Cocoa or Is It Java Technology?

Deane Richan, Xito

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT • CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

The richness of the Mac OS X user experience has refocused usability efforts on creating rich client applications in a world earlier dominated by simple Web applications.

Java™ technology engineers who want to create applications for the Apple Macintosh platform can choose to abandon Java technology and write applications in Cocoa, but they will then not be able to run on the 90% Windows platform and will also not support other desktop operating systems such as Linux. Also engineers would like to leverage their Java technology knowledge in creating applications for the Mac.

This BOF focuses on going over the design and user interface considerations for writing 100% cross-platform applications that will look and feel right at home on the Mac desktop but also be able to run on Windows and other platforms.

Participants will learn about the Java technology integration in Mac OS X as well as tips and tricks for deploying applications on the Mac, including:
- Creating .app packages for Java technology-based applications
- Integration with the system menu for About, Preferences, and Quit
- Creating components using Swing and the Java 2D™ API that make Java technology-based applications look and feel like modern Cocoa applications: Table, Progress Spinner, SplitPane, GlassPane dialog boxes, RoundRectangle panels
- Using Apple-specific system properties to take advantage of Mac-specific features

BOF-5232 Meet the Java HotSpot™ Virtual Machine Engineering Teams

Paul Hohensee, Sun Microsystems, Inc.
James Melvin, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

In this session, you can meet members of the Java HotSpot™ virtual machine engineering teams, including representatives of the garbage collection, JIT compilers, and runtime teams. The session presents a brief overview of the new VM features in progress and planned for JDK™ release 7, followed by an open exchange of ideas, including time for Q&A.

BOF-5236 JSR 292 Cookbook

John Rose, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • Cool Stuff • Tools and Languages | *Advanced*

JSR 292, Supporting Dynamically Typed Languages on the Java™ Platform, defines method handles and invokedynamic, significant new features of the JDK™ 7 virtual machine that help language implementers get the most out of the JVM™ machine. The Da Vinci Machine Project is the reference implementation for JSR 292 as well as a test bed for additional proposed JVM machine features.

This BOF, which discusses how to apply these features to language implementation problems, is for implementers of languages on the JVM machine and of the JVM machine itself.

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Audience takeaways:
- How to use method handles, invokedynamic, and interface injection
- The content and status of JSR 292 and the Da Vinci Machine Project
- How to download and build from the Da Vinci Machine Project

BOF-5261 Web Services in Practice

Jitendra Kotamraju, Sun Microsystems, Inc.
Rama Pulavarthi, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services • CORE TECHNOLOGY: Java EE Technology | *Advanced*

Learn how Web services are used in practice by some of the popular Web services, such as Amazon EC2, eBay, salesforce.com, and Virtual Box, and the security mechanisms they use. This session covers some tips and best practices for developing and accessing Web services that are more secured, optimized, and interoperable through use of the open-source Metro Web Services framework.

The session is for intermediate audiences with general knowledge of Web services.

Web services are all about standards and interoperability, and already there are many tools and frameworks to make disparate applications talk to one another using Web services. But in reality, it takes more than following those specifications to talk to the Web services. Among other things, the session presents
- How some popular vendors, such as Amazon, eBay, salesforce.com, and Virtual Box, are exposing their Web services and the security mechanisms they use
- Some tips on using the Metro Web Services stack to talk to such publicly available services
- Some best practices to follow while developing Web services and tricks to get the best performance when dealing with large amounts of data
- An overview of the now maturing standards-based, policy-driven security mechanisms to take advantage of while developing next-generation Web services

The presentation includes various code samples and demos.

BOF-5273 SOA Error and Fault Management

Bhaven Avalani, eBay, Inc.

SERVICES: SOA Platform and Middleware Services | *Advanced*

SOA error and fault management is one of the most complex and important areas of a SOA infrastructure. Application services and infrastructure equally share the responsibility for handling errors gracefully and reporting the exact nature of problems to their consumers. A successful SOA deployment requires a proper infrastructure to define/manage/process and report errors, and there are no common standards defined for this, which further exacerbates the problem.

This session introduces the concept of an error library designed by eBay that addresses this much needed requirement. It covers design-time support for defining logically related collections of errors, error management, error reporting, and the associated tooling. The concepts are generic and independent of the specific SOA platform.

BOF-5275 Using and Participating in the OpenSSO Project

Sean Brydon, Sun Microsystems, Inc.
Pat Patterson, Sun Microsystems, Inc.
Aravindan Ranganathan, Sun Microsystems, Inc.

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology | *Introductory*

The OpenSSO project is an open-source Web application security framework and service. It provides authentication, authorization, single sign-on, federation, Web services security, and many other core Web application security functionalities. This emerging community is the home for all the OpenSSO development and all the questions and answers on using OpenSSO in Web applications.

If you aren't using OpenSSO today to secure your Web applications, come to this BOF to find out why you should be, talk with other community members, and learn about OpenSSO and how you can join and participate in the community. The presentation also discusses some upcoming features and directions in OpenSSO.

The intended audience is participants in the OpenSSO community and developers interested in Web application security.

In the session, you can
- Discover OpenSSO
- Get a chance to ask general questions about Web application security
- Ask other questions, give feedback, share your experiences, and join OpenSSO

BOF-5305 Java™ API for XML Web Services (JAX-WS) 2.2

Jitendra Kotamraju, Sun Microsystems, Inc.
Rama Pulavarthi, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop • CORE TECHNOLOGY: Java EE Technology | *Advanced*

Java™ API for XML Web Services (JAX-WS) is the primary Web services specification for the Java platform, and JAX-WS 2.2 is a new release of the JAX-WS specification that will have the following features:
- The Web Services Addressing 1.0 metadata specification. It completes the addressing support and simplifies the use of addressing in the programming model.
- A proposed HTTP SPI to decouple deployment and runtime for Web service applications for HTTP transport. Java Servlet containers can take advantage of this to support Web services deployments by using any available JAX-WS runtime (including the one in Java Platform, Standard Edition [Java SE platform]).
- Some other features that simplify the programming model when services are developed from Java technology. For example, the services need not bundle exception and wrapper beans anymore.

This session includes a lot of code samples and demos for all the proposed changes in 2.2. Java technology developers will be able to take advantage of the new features right away after the session.

BOF-5346 Extreme and Complex Event Processing on the Java™ Platform, Using Equinox OSGi

Balamurali Kothandaraman, BEA Systems, Inc.
Takyiu Liu, BEA Systems, Inc.

SERVICES: SOA Platform and Middleware Services • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

High-volume processing of real-time events is critical when it comes to field tactical analysis tools, real-time market analysis tools, and so on. Processing large volumes of data as it comes over the wire from disparate event sources to extract actionable intelligence is increasingly a requirement in computing systems. Databases make it really hard to deal with temporal data and real-time or continuous queries, so there is a growing need for a complex event processing engine.

With the growing adoption and maturity of the Java platform as a computing platform for the enterprise, it is now ready for rules-driven real-time processing. But it requires special event-optimized runtimes that deliver guaranteed pause times and the ability to handle hundreds of thousands of events per second, to apply tens of thousands of rules, and to respond in microseconds. With Equinox OSGi's pluggable architecture, it is a suitable platform for creating event-driven applications as bundles using the common services and infrastructure.

The purpose of this session is to introduce a Java technology-based middleware framework for event-driven applications, using Equinox OSGi. Oracle Complex Event Processing is a high-performance, continuous query engine for processing high volumes of streaming data. It also has an event-processing engine to match events, based on user-defined rules in real time. The session includes a demonstration of this successful implementation of an extreme and complex event-processing engine.

BOF-5358 Language Interoperability on the JVM™ Machine Made Simple

Tobias Ivarsson, Neo Technology

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

Each of the languages available on the JVM™ machine has its own strengths, so the ideal scenario would be to pick the right language for each task in a project (the "polyglot model"). However, this goal is frustrated by the multiplicity of type hierarchies and type semantics, making interoperability difficult. Because the common denominator is Java™ technology, the current solution is to convert to Java technology-based types. Sometimes this is implicit, but most often it is necessary to write explicit Java code to do the required bridging. We can do better.

This BOF details (1) how interface injection works and how it improves interoperability in the greater context of JSR 292 (Supporting Dynamically Typed Languages on the Java Platform) and (2) how a module system bridges the gap between static and dynamic languages. It uses code examples from the Jython project for illustration.

The session is for developers using multiple languages in a project, attendees interested in the benefits of JSR 292, and language implementers.

Expect to walk away from this session with greater insight into
- The difficulties in integrating different JVM machine-based languages, even as the JVM machine helps makes that truly feasible
- Work being done in this area in collaboration between language implementers

BOF-5360 The Modular Java™ Platform: Q&A

Alex Buckley, Sun Microsystems, Inc.
Mark Reinhold, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Advanced*

This BOF features questions and answers about the modular Java™ platform.

BOF-5369 Swarm of Brian

Bruce Boyes, Systronix Inc.
Brian Jenkins, Sun Microsystems, Inc.

MOBILITY • CORE TECHNOLOGY: Embedded/Real-time/Java Card Technologies • Cool Stuff | *Introductory*

Brian Jenkins is a senior at Santa Clara University. He began working with Sun Small Programmable Object Technology (Sun SPOT) and TrackBot as a summer intern. He decided to make this his senior project. Swarm of Brian (apologies to Monty Python) uses Sun SPOT wireless sensors as the application brains in a small swarm of TrackBots (university-level educational robots). This session, for robotics and/or wireless sensor professors, teachers, students, researchers, and hobbyists, is a continuation of work he started in BOF-6620 at the 2008 JavaOne℠ conference. Jenkins' experience serves as a case study of how much a high-level object-oriented language such as the Java™ programming language can enhance productivity. This is especially true if you are not already an expert (Jenkins knew little about robotics when he began).
- Swarm of Brian uses Sun SPOT sensors and radios to enhance the robots' abilities, such as using the Sun SPOT accelerometer as a robot bump sensor.
- Jenkins' work includes creating a simple Java technology-based API for an extensible TrackBot base class.
- This year the spatial awareness capability of TrackBot is being implemented, which makes swarm behavior possible.
- Swarm of Brian will also be implemented in the Greenfoot 2-D simulator (basic TrackBot models and behaviors exist now).
- Sun SPOT's SDK has also recently been updated, enabling more-efficient, event-based communication between TrackBot and Sun SPOT.

BOF-5376 Building Consistent RESTful APIs in a High-Performance Environment

Yegor Borovikov, LinkedIn Corporation
Brandon Duncan, LinkedIn Corporation

SERVICES: SOA Platform and Middleware Services • SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • Cool Stuff | *Advanced*

LinkedIn external APIs have to be simple, versatile, and high-performance. To meet these design goals, LinkedIn developers started with a fusion of a RESTful interface and a unified domain model. Then they added an extended syntax to enable requests to specify fine-grained, field-level breadth and depth of desired resource representations, combined with built-in incentives for clients to use it and receive only the data they actually need.

The resulting architecture is currently used by external partners such as Xobni, LexisNexis, and BusinessWeek.com as well as internal products such as LinkedIn Mobile and the Intelligent

cont. >>

* Content subject to change.

Application Platform that powers OpenSocial gadgets from Amazon, Google, and Six Apart.

The intended audience of this presentation is programmers, designers, and consumers of cross-platform APIs.

The session presents
- An overview of LinkedIn RESTful APIs
- Why REST and a domain model are great together
- How to request and serve exactly what the client needs

BOF-5392 Grails Integration Strategies

Dave Klein, Contegix

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms • CORE TECHNOLOGY: Java EE Technology • Cool Stuff | *Advanced*

It's amazing how quickly you can build Web applications with Grails in a greenfield environment, but most of us do not have that luxury. We have existing infrastructure and applications that we have to maintain and extend. We have legacy databases (or legacy database administrators) to deal with. Does this mean that we cannot benefit from the magic of Grails? No way! The ease of use and productivity of Grails are matched by its power and flexibility.

This session discusses some of the ways Grails can be integrated with legacy databases, Enterprise JavaBeans™ (EJB™) technology-based servers, and even JavaServer™ Faces applications.

Web developers in Java™ Platform, Enterprise Edition (Java EE platform) shops will be kicking themselves if they miss this presentation.

Among the strategies the session covers:
- Calling EJB session beans from a Grails application
- Using Grails' object-relational mapping to access legacy databases
- Accessing Java Naming and Directory Interface™ API resources from Grails
- Using AJAX to call Grails services from the JavaServer Faces platform

BOF-5394 Improving the Java User Groups (JUGs)

Dan Sline, JPMorgan

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

This interactive panel discussion addresses how the various Java User Group chapters (JUGs) can work more effectively. The session encourages participation from the audience members, who should come prepared to share ideas on what has worked in the past as well as what has not worked for the various JUGs.

The session is for anyone who is currently in a JUG and would like to get more involved, anyone who is interested in forming a new JUG, and any JUG leaders who would like to share their experiences with the rest of the group. The attendees should be able to get to know various JUG leaders from around the world; share ideas on how to make the JUGs better; and learn what steps to take to form a new JUG, if they are interested in doing so.

BOF-5493 Quo Vadis JavaFX™ Production Suite

Pavel Benes, Sun Microsystems, Inc.
Martin Brehovsky, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Advanced*

The JavaFX™ Production Suite is a set of tools enabling effective collaboration between designers and developers on the JavaFX platform. Designers can focus on creating presentation graphics for the application work in their preferred graphics environment, whereas developers can focus on creating business logic for applications and not spending hours with tweaking low-level graphics UIs. With JavaFX Production Suite, designers can easily export graphics created in the professional graphic tools to FZD/FXZ format and developers can immediately use those assets from their code.

This BOF shows more-advanced features of the JavaFX Production Suite and discusses new features planned for the upcoming versions of the suite and FXD/FXZ formats. It covers the following topics: animations, states, high-level UI components, custom components, and dynamic graphics. Attendees are welcome to provide feedback.

BOF-5757 Meet the Swing, AWT, and I18N Teams

Masayoshi Okutsu, Sun Microsystems, Inc.
Andrey Pikalev, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

Want to know what the Abstract Window Toolkit (AWT), Swing, and I18N teams have been working on? Want to hear about your favorite bug? Come to this annual combined Swing, AWT, and I18N BOF session to learn more.

BOF-5759 Meet the Java 2D™ API and Java™ Advanced Imaging API Teams

Jim Graham, Sun Microsystems, Inc.
Phil Race, Sun Microsystems, Inc.

CORE TECHNOLOGY: Java SE and Java Technology for the Desktop | *Introductory*

In this BOF, the Java 2D™ API graphics team is available to present information and answer your questions about the latest developments in Java™ technology-based graphics for the Java platform, including the Direct3D accelerated Java 2D API on the Windows platform and new effects via JavaFX™ technology-based APIs. This will be your opportunity to quiz them on the APIs, which include printing, image I/O, and the Java Advanced Imaging API. This is a very interactive session, so come armed with your questions or just learn by listening to the experiences of others.

BOF-6265 Smart Phone Behavior on a Feature Phone Budget, Using Java™ Platform, Micro Edition

Gail Rahn Frederick, Medio Systems

MOBILITY | *Introductory*

Mobile application features typical in smart phones can also be implemented on mass-market feature phones by use of Java™ Platform, Micro Edition (Java ME platform) and Java Platform, Enterprise Edition (Java EE platform) technology-based back-end services. This BoF explores the multimodality and rich user interface of a search-driven ODP application written in the Java ME programming language and broadly ported to mass-market feature phones. Multimodality enables users to search, browse, and discover by using familiar activities on a mobile device: saying a phrase, entering text, or snapping a photo.

cont. >>

* Content subject to change.

The presentation includes demos of Java ME technology-based feature phone devices for voice recording, image capture, location awareness, and advanced mapping functionality in a modern mobile search application. It also presents and analyzes snippets of Java ME code used to implement voice recording, image capture, location awareness, and advanced mapping.

BOF-6343 Meet the Developers of the JavaFX™ Media API

Brian Burkhalter, Sun Microsystems, Inc.
Boman Irani, Sun Microsystems, Inc.
Tony Wyant, Sun Microsystems, Inc.

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT | *Introductory*

This BOF describes and discusses how JavaFX™ technology supports the easy integration and consumption of diverse video and audio formats within your applications using the JavaFX Media API. This simple yet intuitive API provides cross-platform, comprehensive media playback and control capabilities, leveraging the native platform's media framework (DirectShow, CoreVideo/CoreAudio, GStreamer, and so on).

The session's discussion focuses on the design of the API, future plans, known issues and shortcomings, and applicable workarounds while highlighting the best practices for the efficient delivery of media content across a varied set of OS and hardware platforms and expanding on these with code examples.

BOF-6730 What Is and Will Be New in OpenESB?

Sujit Biswas, Sun Microsystems, Inc.
Norbert Piega, Sun Microsystems, Inc.
Sherry Weng, Sun Microsystems, Inc.

SERVICES: SOA Platform and Middleware Services | *Introductory*

OpenESB is an open-source project creating a platform for business integration, enterprise application integration, and SOA. In this BOF, the OpenESB community reviews features added in the past year (the GlassFish ESB release, normalized message properties, message tracking, SOAP header access, and so on) and discusses what's going to be focused on next.

If you're new to OpenESB, this will be a good opportunity to learn what OpenESB is all about. Whether you're using or are developing OpenESB, you can meet other community members here and influence the future direction of OpenESB.

BOF-6731 Mobile and Embedded Lightning Talks

Terrence Barr, Sun Microsystems, Inc.
Roger Brinkley, Sun Microsystems, Inc.

MOBILITY | *Introductory*

JavaOne℠ conference attendees will be able to pitch their projects or ideas in 10 five-minute time slots to session attendees in this BOF. The 10 presentations are currently undetermined, but mobile attendees won't want to miss this fast-paced and informative BOF, complete with cowbells to alert any speakers who exceed their time allotment. Those wanting to speak should send their suggestions to editor-at-mobileandembedded.org for consideration. Terrence Barr, M&E community evangelist, and Roger Brinkley, M&E community leader, are picking the top 10 topics for this event.

** Content subject to change.*

RICH MEDIA APPLICATIONS AND INTERACTIVE CONTENT

Lead	Arindam Bhattacharya
Colead	Larry McDonough
External Reviewers	Jim Weaver Konstantin Zolotnikov
Internal Reviewers	Martin Brehovsky Mike Gionfriddo Joshua Marinacci Ethan Nicholas Noel Poore Jasper Potts Kevin Rushforth Bill Sheppard Jan Sterba Hinkmond Wong Jennifer Yonemitsu Lilach Zipory

MOBILITY

Lead	Roger Brinkley
External Reviewers	Alexandre Gomes Qusay Mahmoud John Muchow Enrique Ortiz Juan Felipe Rincon Sean Sheedys
Internal Reviewers	Akhil Arora Eric Arseneau Terrence Barr Jerry Evans Daniel Green Sebastian Hans Amir Karlon Kevin Looney Darryl Mocek Renu Motwani Radko Najman Petr Panteleyev Andrey Petushkov Omer Pomerantz Roger Riggs Danila Sinopalnikov Jan Sterba Florian Tournier Hinkmond Wong

SERVICES: SOA Platform and Middleware Services

Lead	Frank Kieviet
External Reviewers	Steve Jones Mark Little Duane Nickull
Internal Reviewers	Keith Babo Ron Ten-Hove Mei Wu

SERVICES: Web 2.0, Next-generation Web, and Cloud Services Platforms

Lead	Jim Driscoll
External Reviewers	Ben Galbraith Hani Suliman Alan Williamson
Internal Reviewers	Jean François Arcand Ed Burns Harold Carr Kin-Man Chung Arun Gupta Marc Hadley Jacob Kessler Ryan Lubke Paul Sandoz

CORE TECHNOLOGIES: Java SE and Java Technology for the Desktop

Lead	Jeff Dinkins — Desktop
Colead	Danny Coward — Java SE Platform
External Reviewers	Ben Galbraith Romain Guy
Internal Reviewers	Alan Bateman Brent Christian Mandy Chung Joe Darcy Denis S. Fokin Amy Fowler Tom Hawtin Eamonn McManus Jim Melvin Sean Mullan Igor Nekrestyanov Thomas Ng Kelly O'Hair Andrey Pikalev Alex Potochkin Phil Race Vincent Ryan Dalibor Topic

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CORE TECHNOLOGIES: Java EE Technology

Lead	Linda DeMichiel
External Reviewers	Hani Suliman Dick Wall
Internal Reviewers	Lance Andersen Harold Carr Roberto Chinnici Richard S. Hall Ronald Monzillo Scott Oaks Binod Pg Kenneth Saks

CORE TECHNOLOGIES: Embedded/Real-time/Java Card Technologies

Lead	David Therkelsen
Internal Reviewer	Greg Bollella

Tools and Languages

Lead	Sharat Chander
Colead	John (JB) Brock
External Reviewers	Wayne Beaton Andre Charland Cay Horstmann Michael Hutterman Adam Myatt Fabiane Nardon Greg Sporar Raghavan N. Srinivas Dick Wall John Yeary
Internal Reviewers	Wen Huang Sridhar Reddy Petr Suchomel

Cool Stuff

Lead	Miriam Kadansky
External Reviewers	Dan Creswell Brian T. Lewis Klaasjan Tukker
Internal Reviewers	Jeffrey Alexander Eric Allen Eric Arseneau Tim Blackman Angela Caicedo Sheueling Chang Christopher Cheetham Daniel Dawson Dave Dice Christine Flood David G. Simmons Gilda Garreton Katherine Hartsell Laura Hill David Holmes Bernard Horan Ed Hunter Deron Johnson Mick Jordan Peter Kessler Nathan Keynes Karen Kinnear Paul Lamere Lian Li Jane Loizeaux Victor Luchangco Chris Melissinos Seth Proctor Juan Ramirez Simon Ritter Steven Rubin Sukyoung Ryu Glenn Scott Nigel Simpson Pete Stpierre Antero Taivalsaari Jimm Ti Bernard Traversat Poornaprajna Udupi Mario Wolczko Ann Wollrath Greg Wright

Hands-on Labs

Lead	Sang Shin
Internal Reviewers	Doris Chen Arun Gupta Peter Karlsson Simon Ritter Dan Templeton

* Content subject to change.

TECHNICAL SESSIONS

** Content subject to change.*

TECHNICAL SESSIONS

PANEL SESSIONS

** Content subject to change.*

BOF SESSIONS

** Content subject to change.*

JAVA + COMMUNITY = POWERFUL

Sharpen your work on technologies that matter, get hands-on, and (re)connect with the best community in technology today.

Whether you're into...

AJAX APIs, standards, and specifications
Cloud computing
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Concurrency
Desktops
Eclipse
Eco responsibility
Embedded Java technology
Game development
Garbage collection
GlassFish application server
IDEs
Integration and service-oriented development
Java Card platform
Java Runtime Environment software
Java SE, Java EE, and Java ME platforms
Java technology developer communities
JavaFX technology
JavaServer Faces 2.0 technology
Mobile Information Device Profile (MIDP)
Music technologies
NetBeans IDE
Open-source and community development
Persistence architectures
Rails on the Java Virtual Machine
Real-time Java technology
REST for Java technology
Robotics
Scripting within the Java Virtual Machine
Sun Enterprise Service Bus Suite
Virtual worlds
Voice recognition
Web services
Web standards such as Canvas and SVG

You gotta be here this year.

** Content subject to change.*