

Special Event !



Become Proficient in Java Performance Tuning

Sign up for our in-depth training course in Allschwil/Basel, 27th June - 1st July 2011



Our comprehensive **five day training course** will provide you with the skills you'll need to quickly performance tune your Java applications. Topics covered include tooling, methodology, architecture, best practices, benchmarking, and memory management. With hands-on experience from real problems, you'll learn how to:

- Quickly identify and fix the root causes of poor performance in your applications
- Find and solve memory problems in hours - not days or weeks
- Find critical supportive evidence *before* deciding on a potentially expensive course of action
- Find performance issues *before* they make their escape into the wild

Led by Kirk Pepperdine - a recognized expert in Java Performance Tuning, Sun Java Champion, international speaker and trainer, and co-contributor to the successful [Java Performance Tuning Newsletter](#) - you'll learn in five days what would otherwise take years of self-study.

Kirk has fixed numerous critical performance issues and has saved millions in lost revenue and downtime for his clients. Full of insight and packed with experience, this course can help you do the same.

Day 1 - Introduction to Performance

- Defining performance and performance tuning
- Performance tuning methodology
- Model describing the system under investigation
- Applications of the model to direct the process
- Importance of responsiveness
- Effective use of monitoring in diagnosis performance problems
- Performance testing
- Load, stress, and endurance testing
- Load test harnesses

Day 2 - Consumers of the CPU

- System monitoring
- Tools for system monitoring
- Memory management
- Sun garbage collection
- IBM garbage collection
- Object life cycles
- Monitoring garbage collection
- Tools for garbage collection analysis

Day 3 - Consumers of the CPU

- Tools to find latency
- Inter-process communications monitoring
- Tools for monitoring inter-process communications
- JDBC monitoring
- Threading and concurrent
- Java Management eXtensions (JMX)
- Profiling tools
- Execution profiling
- Memory profiling
- Memory leak characterization
- Thread dump analysis

Day 4 - Performance Tuning

- Performance tuning tactics
- Getting big gains first
- Psychology of performance tuning
- Micro benchmarking
- Macro benchmarking
- Factors that affect benchmarks
- Analysis of benchmarking results
- Review of collections
- Serialization

New! Day 5 - Extended VisualVM

1. Introduction

- Description of VisualVM as a NetBeans Application
- Tour of VisualVM views
- VVM view extension touch points
- Steps to build a VVM extension

2. JVM Serviceably

- JVMTI
- Serviceability Agent
- Dynamic Attach
- JMX

3. Connecting an MXBean to a custom view

- Finding a JMX connection
- Finding an MXBean
- Interacting with an MXBean

4. Charting

- Types of chart
- Existing charts in VisualVM
- Creating charts
- Streaming data to a chart

5. Snapshots

- Support for snapshots
- DataSources
- Storage
- Threading considerations
- Localization

Mastering IT Performance