Agenda

- Intro

- Hands-on-lab

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

JAVA MISSION CONTROL

INTRO

Java Mission Control Overview

The new JDK profiling and diagnostics tools platform

- A tools suite for *production* use (fine in development too)
  - Basic monitoring
  - Production time profiling and diagnostics
  - Other features, such as heap dump analysis, from downloadable plug-ins

Java Mission Control Helps You To...

- Resolve problems faster
- Find bottlenecks in your applications
- Find bottlenecks in ISV provided applications
  - Unhappy with the performance? Send your ISV a (JFR) recording.
- Do post mortem analysis, even from crash dumps

Java Mission Control - Performance
Extremely Low Overhead

- Built into the JVM/JDK, by the people developing the JVM

- High performance flight recording engine and high performance data collection

  - Access to data already collected in the runtime

  - Thread local native buffers

  - Invariant TSC for time stamping

  - More accurate method profiling (method profiling data even outside safe-points)

  - Faster and more accurate allocation profiling (scalarization not undone by profiler))

Java Mission Control

Other key points

- Safe and reliable in production
  - Tested on all platforms as part of the JVM/JDK-testing
  - Low overhead means no measurable impact on the running application
- Low overhead + reliability = always on
  - Time machine
  - Data available even from crash dumps
  - Fast interaction with Oracle support

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Java Mission Control Toolset

(As delivered in the JDK 7u40 release)

- JMX Console
  - For monitoring running Java processes in real time
  - Monitoring of a few select key indicators
  - The implementation in JMC is quite good!
- Java Flight Recorder
  - Analogous to a data flight recorder (DFR) in a modern aircraft
  - Profiling of running production systems!

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HANDS-ON-LAB

Other Resources

Plus shameless book plug

- JMC Homepage
  http://oracle.com/missioncontrol

- Hirt's blog
  http://hirt.se/blog

- Twitter
  @javamissionctrl, @hirt

- Shameless Book plug

Oracle JRockit

The Definitive Guide

Develop and manage robust Java applications with Oracle's high-performance Java Virtual Machine

Foreword by Adam Messinger,
Vice President of Development in the Oracle Fusion Middleware group

Marcus Hirt   **Marcus Lagergren**   [PACKT] enterprise