Oracle WebLogic Server

The #1 Application Server for Enterprise Java and SOA Developers

ORACLE

ORACLE THIRTY YEARS 30

# JRockit Mission Control and JRockit Flight Recorder

**Jeffrey West**
Application Grid Product Management

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.

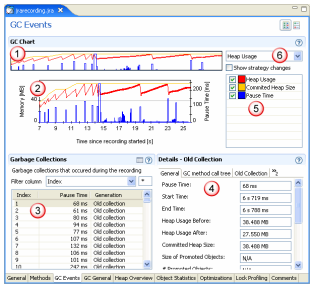
The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

# Agenda

- What is JRockit Mission Control?
- What is JRockit Flight Recorder?
- JRMC & JFR Demos
- Conclusion & WebLogic Resources

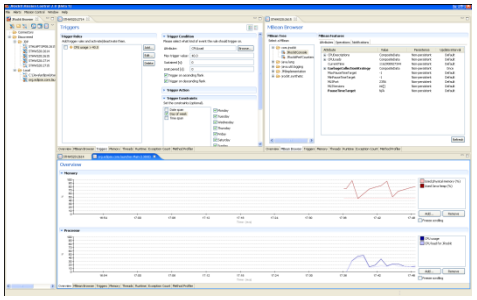
# Oracle JRockit Mission Control

Monitoring



Profiling & performance tuning

Deploy



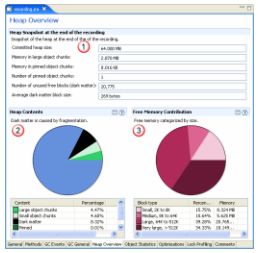
Development

Operations

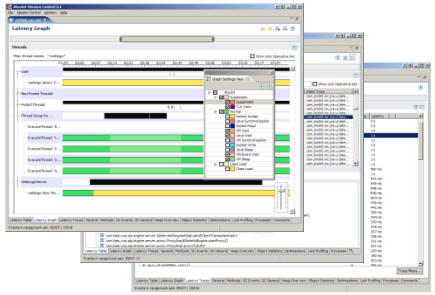
Alerts & triggers

Regression testing

Analysis



Escalate

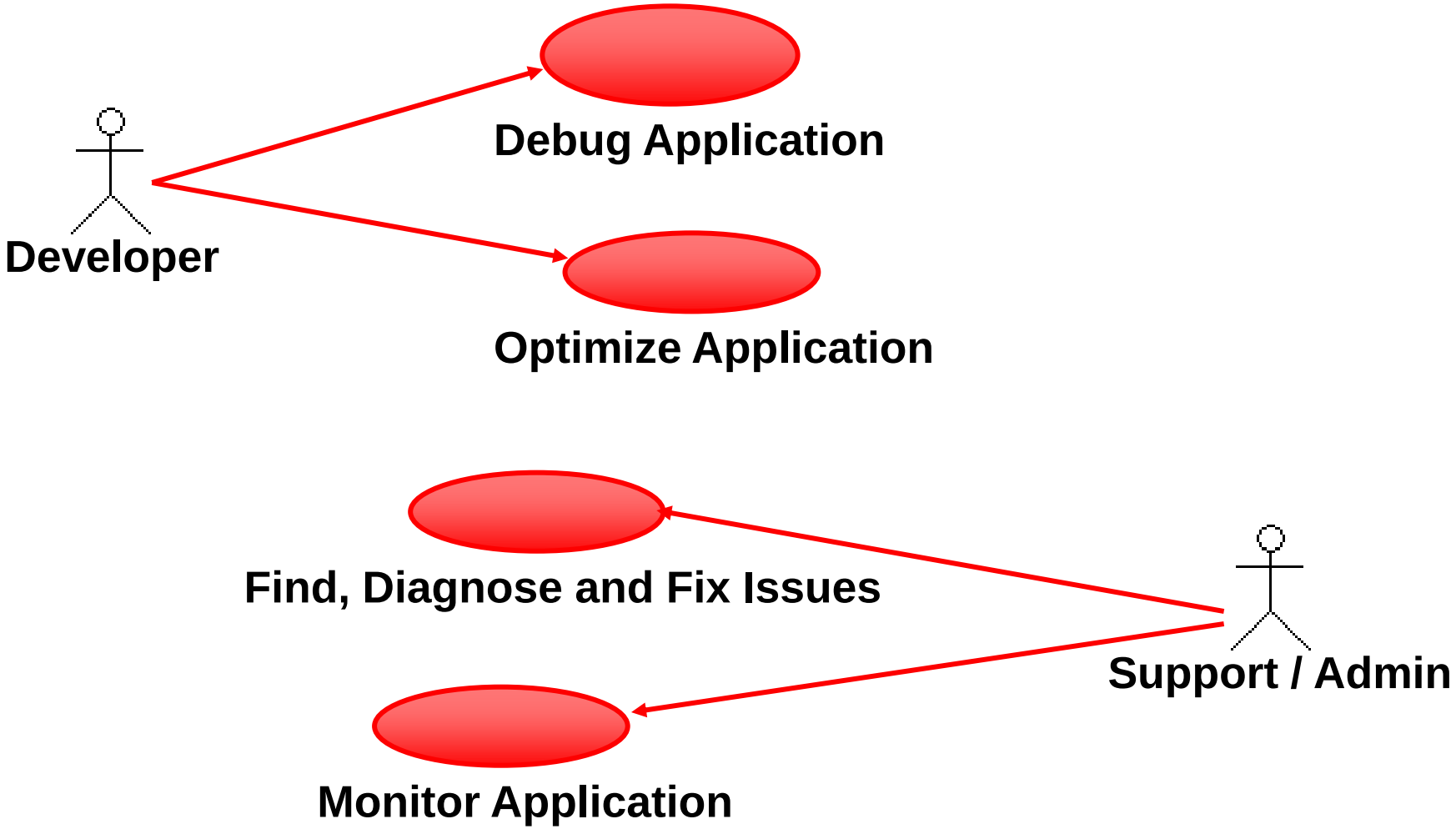


Production diagnostics

Troubleshooting

# Use Cases

## JRockit Mission Control



# Runtime Monitoring & Profiling

## JRockit Mission Control

### What can you Monitor?

- CPU Usage
- Memory & Heap Usage
- Garbage Collection Activity
- Thread Usage and stack traces
- Mbeans with Mbean Browser

### What can you Profile?

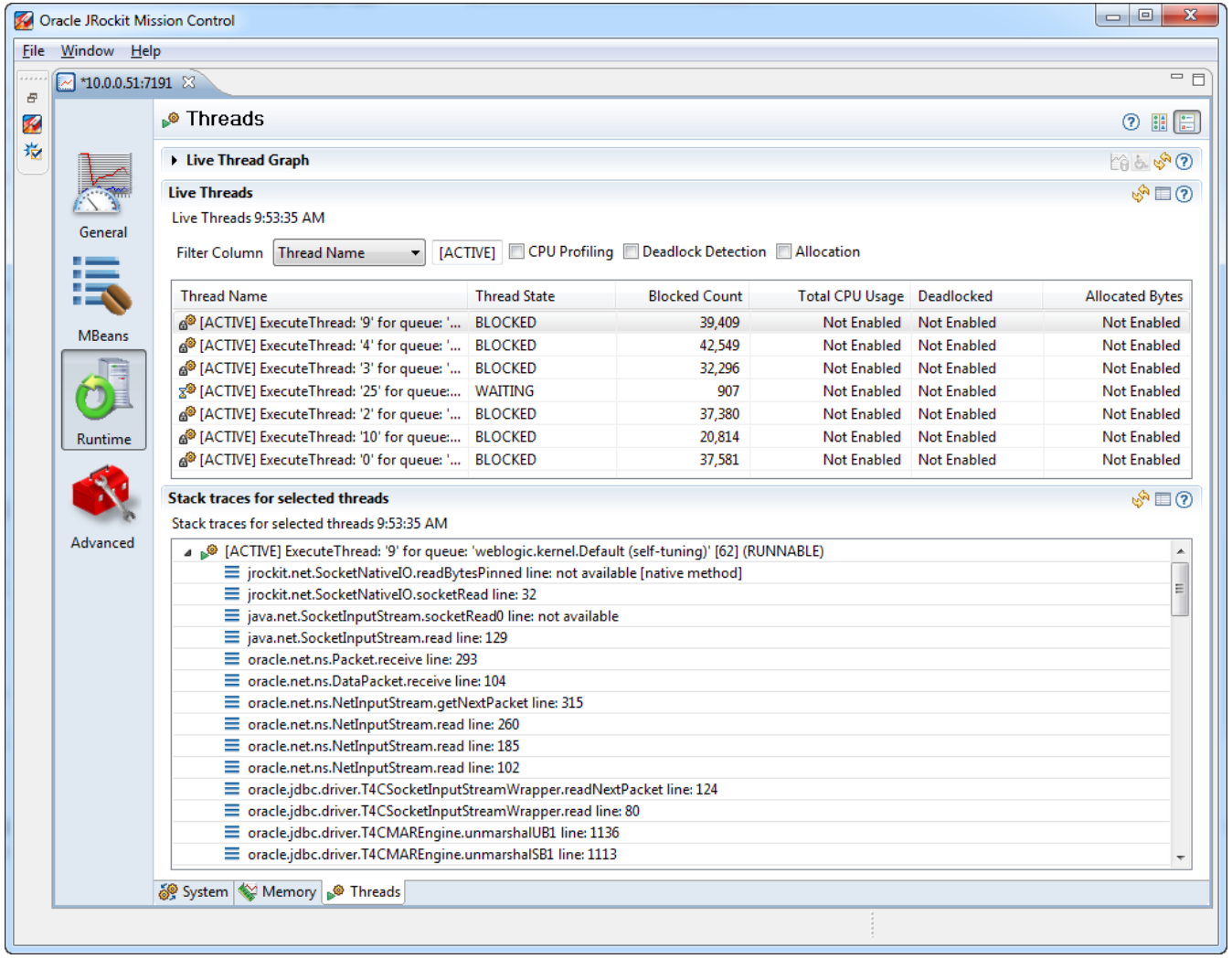
- User-selected Java Methods
- User-selected Exceptions

# Oracle JRockit Mission Control

## Monitoring Dashboard

# Oracle JRockit Mission Control

## Monitoring Threads

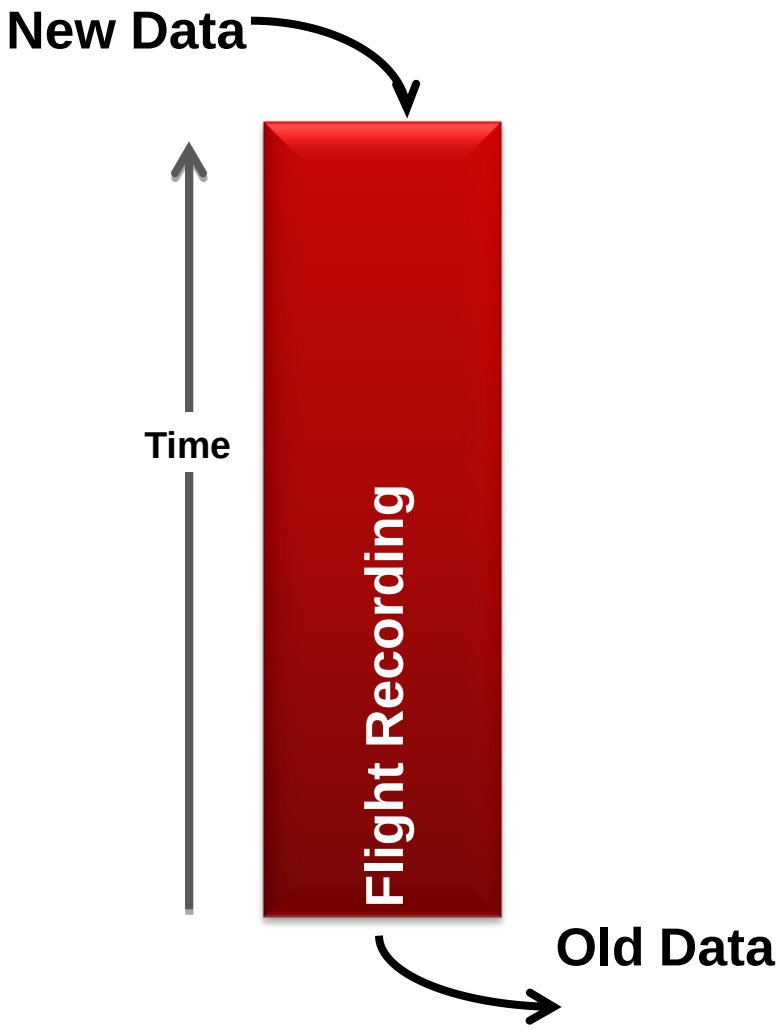


# Agenda

- What is JRockit Mission Control?
- What is JRockit Flight Recorder?
- JRMC & JFR Demos
- Conclusion & WebLogic Resources

# What is the JRockit Flight Recorder?

- New in JRockit R28
- “Circular buffer” in JRockit JVM that stores diagnostic data
  - Always on
  - New data comes in and is stored, old data dropped off
- Built-in integration with JRMC
  - Replaces JRMC Runtime Analyzer and Latency Analyzer
- Very low/near zero overhead
  - Uses data already used by JVM
- Data can include events from the JVM and from any other event producer
  - WebLogic Server (WLDF)
  - Fusion Middleware (DMS)



# Use Cases

## JRockit Flight Recorder

- What it is designed for?
  - Provide diagnostic information in running production systems
  - Look back in time to see what happened after a crash
  - Capture most recent activity to enable analysis leading up to an issue
  - Capture data from all levels JVM, WLS, DMS, etc…
  - Offline/offsite analysis can be done using the JRMC GUI
  - JRockit dumps capture information to assist in crash-analysis

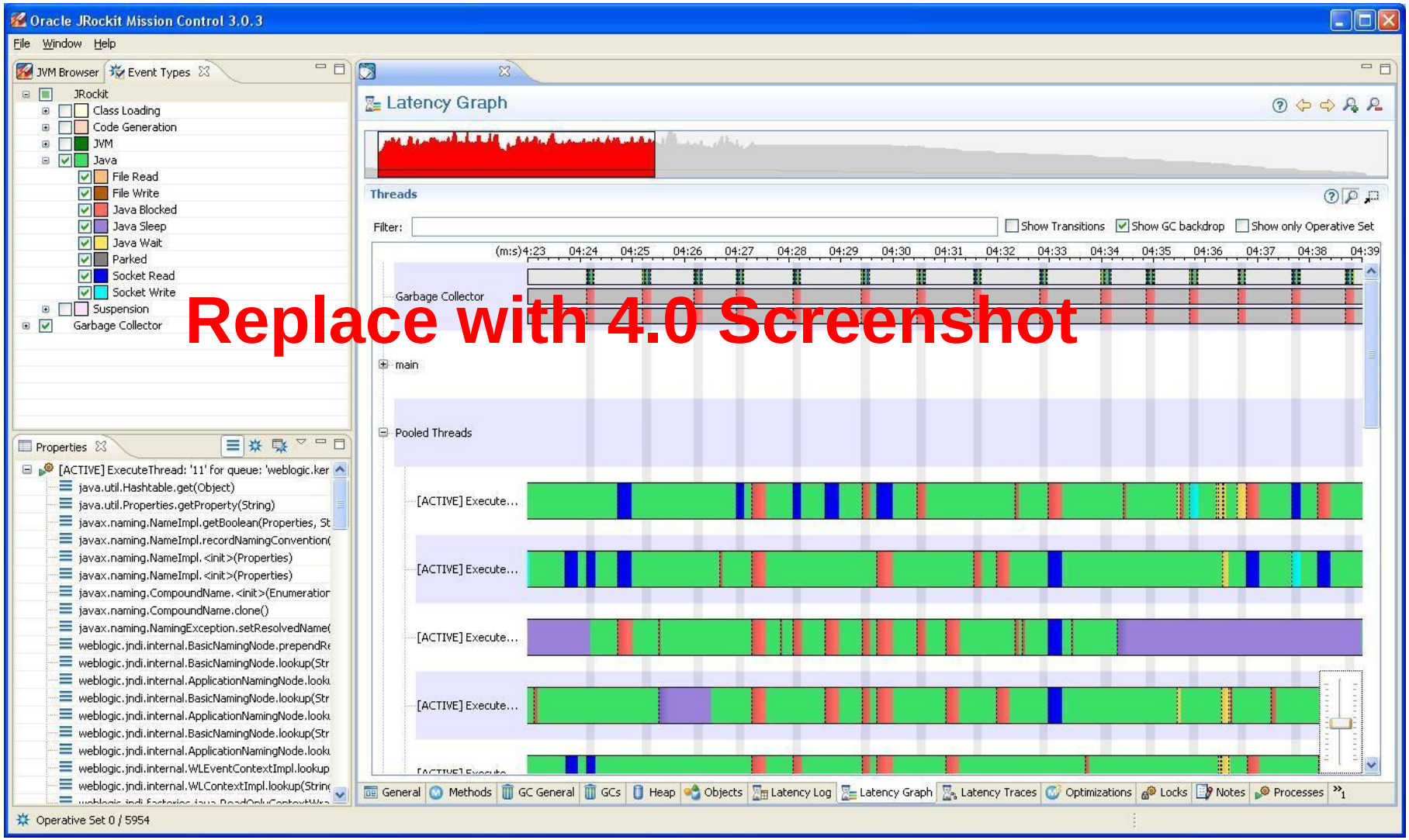
- What it is not designed for?
  - Large event payloads or very high volumes of events
  - Long history
  - Not a replacement for Debug logging or the server logging

# Evolution - JRockit Flight Recorder

## JRockit Mission Control 4.0 Integration

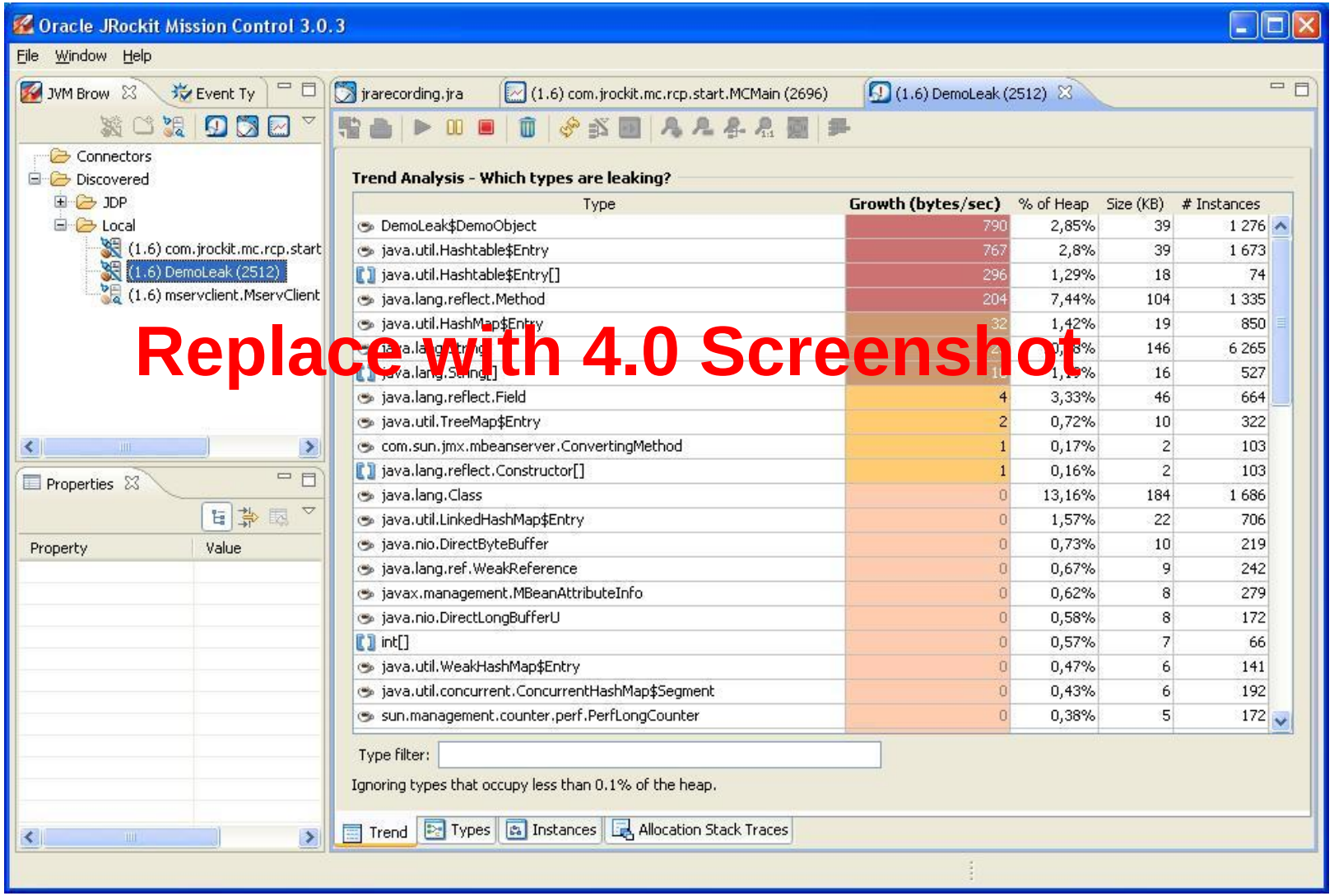
- Always On
- The Holy Grail of JVM Forensics
  - You usually want information from before the time you were alerted to the problem
- The main diagnostics and profiling tool
- Very low overhead
  - Piggybacking on JRockit internal systems
  - Very low overhead engine, events recorded thread locally
- Producer API for third party event providers
  - Working with other teams within Oracle
  - Will show demo for WLS database calls

# Oracle JRockit Mission Control




**Replace with 4.0 Screenshot**

# Oracle JRockit Mission Control




**Replace with 4.0 Screenshot**

# DEMONSTRATIONS

# Find us Online!


www.oracle.com/technetwork/middleware/weblogic

---


www.YouTube.com/OracleWebLogic

---

Give us feedback! @OracleWebLogic

www.twitter.com/OracleWebLogic

---

www.facebook.com/OracleWebLogic