

Oracle Java SE Advanced for ISVs



Oracle Java SE Advanced for ISVs is designed to enhance the Java based solutions that ISVs are providing to their enterprise customers. It brings together industry leading Java support, the ability to control and deliver updates for older versions of Java SE and tools for in-production diagnostics and monitoring, after-the-fact incident analysis and enterprise wide usage tracking and management. Leveraging these features, ISVs can attain cost savings, achieve greater application robustness, offer enhanced customer satisfaction and safeguard their investment in the Java platform.

ADVANCED TOOLING – JAVA DIAGNOSTICS AND MONITORING

KEY FEATURES

- Java Mission Control & Java Flight Recorder
- After-the-fact incident analysis
- Zero performance overhead
- Latency analysis
- Garbage collection analysis
- No code modification required
- Java Usage Tracker
- Advanced Management Console for enterprise-wide Java identification and control
- Microsoft Windows Installer (MSI) Enterprise JRE Installer

Monitoring and Fulfilling Service Level Agreements

Businesses today have stringent service level agreements (SLA) that they must fulfill continuously. If an outage occurs, rapid resolution and explanation is expected by customers. Often this means quickly restarting a failing service and afterwards investigating what went wrong by inspecting data collected after the event occurred. Oracle Java SE Advanced helps ISVs to rapidly analyze, understand and resolve application issues if an SLA outage should occur. Oracle Java SE Advanced for ISVs provides two features, Java Flight Recorder and Java Mission Control, that together create a complete tool chain to continuously collect low level and detailed runtime information enabling after-the-fact incident analysis.

Always-on Profiling in Production Environments

Java Flight Recorder is a profiling and event collection framework built into the Oracle JDK providing diagnostics to achieve enhanced application performance and customer support levels through rapid analysis, understanding and resolution of application issues. It allows Java administrators, developers and application support teams to gather detailed low-level information about how the Java Virtual Machine (JVM) and the Java application are behaving without application performance impact.

The collected data is invaluable when tuning the application, tracing excessive allocation, pinpointing code bottlenecks, lock contention or uncovering slow I/O. This results in enhanced application uptime and reduced application support costs.

The following key features enable Java Flight Recorder to become the solution for always-on profiling in production environments.

- **Flight recorder mode.** Continuous data collection in-memory or on disk that can be requested at any point in time to do after-the-fact analysis.
- **Always available.** Data collection can be started, stopped and configured dynamically without requiring the Java application to be restarted.

KEY BENEFITS

IDC estimates that the average cost of application downtime is \$1.5M per hour¹. Oracle Java SE Advanced for ISVs provides enhanced uptime with the ability to do deepest level diagnostics in production without performance overhead.

- Provides diagnostics in production with zero performance overhead, enabling the ISV to meet and over achieve service level agreement (SLA) commitments
- Enhanced customer support levels can be attained during deployment by using the advanced diagnostics tools to rapidly identify, understand and indicate resolution of application issues
- Always on, detailed diagnostics
- Complete Java stack analysis
- Designed for production deployment
- Monitor key performance indicators and diagnose root causes in minutes
- Reduces application development life cycle time and enhance performance
- Track all desktop Java installations
- Ease of managing Java version compatibility and control updates
- Simplify JRE installation in an enterprise with MSI compatible Installer
- Enhanced control and secure network infrastructure
- Manage Java upgrades at your own pace with access to End of Public Updates versions

- **Integrated.** Java Flight Recorder is fully integrated into the Java SE stack, and able to collect information from the OS and JVM level all the way up to the Java libraries and your Java application.
- **Zero performance overhead.** Traditional profiling tools add significant overhead affecting application performance and stability. The deep integration with Oracle JDK enables JFR to collect information without impacting performance or stability making it possible and safe to use in production environments.
- **No code modification.** Java Flight Recorder doesn't require any code changes, and does not modify any code when profiling, enabling accurate and nonintrusive profiling.

Advanced Graphical Analysis Tools

Java Mission Control is an advanced set of tools that enables efficient and detailed analysis of the extensive data collected by Java Flight Recorder. The tool chain enables developers and administrators to collect and analyze data from Java applications running locally or deployed in production environments, enabling performance tuning to improve time-to-value of your Java-based applications.

- **Overview.** Java Mission Control provides sections for common analysis areas such as code performance, memory and latency. Each section provides a high level overview and allows the user do more detailed analysis within the area.
- **Time and Event Filtering.** Users can zoom in on interesting time periods and use operative sets to filter out data not relevant for the current analysis.
- **Drill-down.** From the overview tabs Java Mission Control enables advanced users to drill-down into specific events and do ad-hoc analysis of all the available data.
- **Advanced Plugins.** Java Mission Control includes plugins that add specialized tabs for analysis of Oracle Fusion Middleware application data.



Figure 1: Java Mission Control

Tracking Java Usage

Large organizations often have tens of thousands of desktops with Java deployed and in active use. Enterprises normally rely on Software Management tools to manage the life cycle of deployed applications. Generally these tools do not provide any information about application usage.

The Usage Tracking feature enables organizations to collect information about how Java is used across the enterprise. ISVs in conjunction with System Administrators will

¹ Source: IDC, Measuring Cost of Downtime and Recovery Objectives Among U.S. Firms, doc #245125, December 2013. Figure is for firms over 10,000

be able to gain insight into which versions, configurations and applications are most commonly used, and proactively test these before deploying updates of Java SE and any Java applications.

Java Usage Tracker Information		
Date and time	Java version	Application name
Host name and IP address	JRE location	Class path
OS and CPU architecture	JRE arguments	User defined properties

Table 1: Example of data logged by Java Usage Tracker. For detailed information please visit the [Java Usage Tracker documentation](#)

Advanced Management Console

The Java Advanced Management Console (AMC) enables system administrators to easily identify web-based Java applications and Java Runtime Environment (JRE) versions across company systems. AMC provides usage tracking as well as tools for controlling compatibility and availability of current and older Java installations through Deployment Rule Sets. The result is a measurable and streamlined experience for users running Java applications and limited accessibility of older JREs. By tracking Java usage, system administrators can identify and whitelist applications to run with no prompts, and make adjust configurations with lower end-user involvement. This can simplify various support cases where users need to run different Java applications.

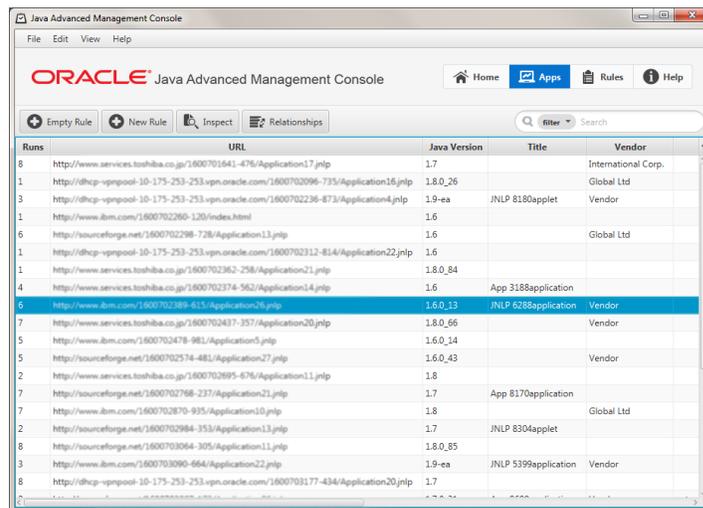


Figure 2: Advanced Management Console dashboard

Simplify JRE installation in an enterprise with Microsoft Windows Installer (MSI) Compatible Enterprise JRE Installer.

Available for Windows 64 and 32 bit systems in the Oracle Java SE Advanced products, the MSI compatible installer enables system administrators to provide automated, consistent installation of the JRE across all desktops in the enterprise, free of user interaction requirements. With the MSI Installer in place the common set of features to rollback unsuccessful installations to the previous state, to support repairing broken installations and even to install over broken existing installations can all now be leveraged.

SUPPORT KEY FEATURES

- Close collaboration with experienced Oracle Java support organization
- Support engineers with Java expertise
- Offering 24x7 support from Oracle's Java experts in 27 languages
- Access to fixes on fully tested releases
- Security Updates – fixes security updates in older and current releases
- Personalized, proactive support tools via My Oracle Support

KEY BENEFITS

- ISV can uplift the cost or value of their offering
- ISV can satisfy end customer requirements for whole solution support
- Increased ISV end customer satisfaction
- Reduced ISV Java support costs
- ISV can aggregate support across their customer base, providing cost savings and the ability to manage common support needs across multiple customers

UPDATE & PATCH ACCESS WITH REDISTRIBUTION KEY FEATURES

- Ability to redistribute updates and patches for end of life Java releases
- Access updates for new hardware platforms, operating systems and browsers without additional license or support fees
- Exclusive access to revisions, updates and important information - securely and privately exchanged
- Sole delivery source of critical security updates and bug fixes for the J2SE 5.0 and Java SE 6; Java 7 is planned to reach end-of-public-updates starting in April 2015²

KEY BENEFITS

- ISVs end customer can remain on a fully updated Java release even after end of life for that version has passed, therefore providing increased flexibility on the transition point between versions
- Provides security fixes that may not be available publically, ensuring platform stability
- ISV can control the use and distribution of updates across their customer base

Industry Leading Support

Organizations running mission-critical applications on Java SE need security updates, expanded configurations and reliable support to preserve their investment. Support as and when you need it is a core component of the Oracle Java SE Advanced for ISVs offering. Providing immediate access to dedicated 24x7 email and phone support for your mission-critical Java applications.

Access and Distribution of Platform Updates

As Java SE versions reach the End of Public Updates (EoPU), many organizations require longer and more flexible transition options. Oracle Java SE Advanced for ISVs enables you to both support and provide non-public updates and patches to your customer base, allowing both platform stability to be maintained and giving greater flexibility on the transition point between Java versions.

Summary

Maximize your Java SE investment and minimize unexpected downtime with Oracle Java SE Advanced for ISVs:

- Maintain business continuity and gain insight into your applications through monitoring and performance tuning tools
- Enhance uptime with the ability to do deepest level diagnostics in production without performance overhead
- Change management allows you to plan applications upgrades based on business needs, not platform requirements
- Active risk mitigation to address security issues with update releases, support and controlled upgrades for older/multiple Java versions
- Reduction in application support costs and risk with priority resolution and Oracle Support

² Oracle Java SE Support Roadmap: <http://www.oracle.com/technetwork/java/eol-135779.html>



CONTACT US

For more information about Oracle Java SE Advanced for ISVs, visit oracle.com/java or call +1.800.ORACLE1 to speak to an Oracle representative.

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Hardware and Software, Engineered to Work Together

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