
performance


protection


deployment

Product Data Sheet

Excelsior JET

Release the Power of Java™

Excelsior JET is a certified Java SE technology implementation designed to help accelerate Java applications, secure them against reverse engineering, and distribute Java software products without the need to use the Java Runtime Environment (JRE.)

Executive summary

Platform-neutral Java bytecodes cannot be executed directly on hardware commonly used in PCs and embedded devices. Usually Java applications must run on top of the Java Virtual Machine (JVM) that mediates between the CPU and the program code. Excelsior JET makes that approach unnecessary.

Excelsior JET is the only certified implementation of Java SE 6 that enables Java applications to run directly on the hardware from the very start.

Instead of the slower semi-interpreting virtual machine, Excelsior JET includes an Ahead-Of-Time (AOT) optimizing compiler. Java developers can use it to convert an application's class files into highly optimized native executables. As a result, Java applications run at full speed immediately at startup because the Java code is optimized for the underlying hardware before execution.

Excelsior JET effectively removes the overheads inherent to other Java implementations and improves application performance without source code changes or hardware upgrades.

The Excelsior's Java implementation targets the x86 CPU architecture but is not biased to a particular brand, so it increases the performance of both AMD and Intel® platforms.

Excelsior JET also protects proprietary code against reverse engineering. Java classes are easy to decompile and many easily available tools produce very clear readable source code from class files. Using optimized native executables instead of Java classes is the only option to avoid the "open source" issue.

Finally, Excelsior JET simplifies Java deployment. Optimized applications no longer require any Java software, such as the JRE, on end user systems. The Excelsior JET Installation Toolkit creates conventional installation packages without any deployment dependencies.

Excelsior JET 6.0 features and benefits

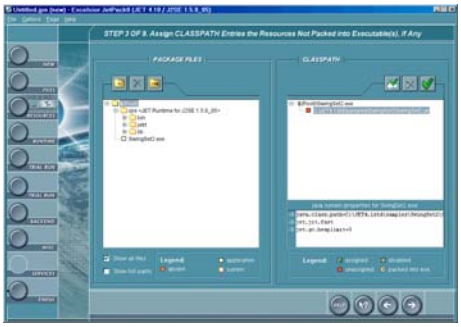
Core engine	
AOT (static) compilation	Improves application performance Delivers optimal application response time at startup Protects intellectual property by making Java applications as hard to decompile as if written in C++ Increases robustness of Java applications; the code executed on the target system is the code tested and deployed Improves integration of Java applications into the native environment
Global (whole-program) optimization	Substantially reduces download size and disk footprint of Java applications Reduces application memory usage and start-up time Further increases application performance
High performance runtime support	Minimizes Java performance penalties by providing fast memory allocation, effective garbage collection, and low-overhead thread synchronization Optimized for HyperThread, multi-core, and multi-CPU systems
JIT (dynamic) compilation	Enables dynamic loading of application components such as plug-ins
JIT caching	Reduces the overheads of dynamic compilation through storing/reusing the JITed code
Compatible with Java SE 6 and 5.0	Certified with the latest Java standards
Windows® and Linux support on the x86 architecture (both AMD and Intel)	Covers most popular desktop and server platforms

The JET Control Panel enables quick setup of Excelsior JET for compiling Java applications into native code and creates scripts for automated builds

Native-style deployment

Installation Toolkit	Enables native-style deployment for optimized Java applications Removes deployment dependencies such as the JRE Generates setups powered by Excelsior Installer Creates pre-installed applications that run off removable media, such as USB flash drives Simplifies integration with other installation tools
Java Runtime Slim-Down model	Minimizes the download size of optimized Java applications through exclusion of the unused parts of Java SE from the installation package
Setups powered by Excelsior Installer	Streamline installation of Java software products through graphical installation wizard[1] or command line interface Customizable installer appearance and functionality Support for multiple languages Reduced download size due to optimized compression

The JetPackII deployment wizard enables the rapid creation of native installation packages and supports automated builds



Extra features

Windows Services Toolkit	Enables installing and running optimized Java applications as Windows services
Generation of trial versions	Creates trial/demo versions of Java software products
InstantSplash	Improves user's perception of Java applications load by displaying splash screen at startup

[1] Excelsior Installer for Linux has only command line interface

Learn more

To get more information about Excelsior JET and to download a fully functional evaluation copy, please visit www.excelsior-usa.com/jet.html

About Excelsior

Excelsior LLC provides advanced Java-compatible solutions and consulting services with particular focus on optimizing compilers, high performance runtime environments and the Java technology.

The heart of our company development efforts is the Excelsior JET virtual machine, designed from the ground up to meet the demanding needs of emerging Java embedded, desktop and server applications.

Founded in 1999, Excelsior is headquartered in Novosibirsk Scientific Center, Russia. To learn more about Excelsior, please visit www.excelsior-usa.com

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