Liberica Native Image Kit 25.0.5.0.3-1 (25.0.5.0.3+6) Release Notes



Liberica NIK
25.0.5.0.3
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bellsoft

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1. Introduction

This document provides information about Liberica NIK release.

This particular version of Liberica NIK 25.0.5.0.3-1 is based on Liberica JDK 25.0.5.0.3+6.

> **Note:**
>
> For more information about Liberica JDK release, see Liberica JDK Release Notes.

Liberica Native Image Kit is a utility Based on GraalVM Open Source that is capable of converting your JVM-based application into a fully compiled native executable ahead-of-time under the closed-world assumption with an almost instant startup time.

Liberica NIK supports the following platforms:

- Linux x86_64 (glibc)
- Linux Alpine x86_64 (musl)
- Linux AArch64 (glibc)
- Linux Alpine AArch64 (musl)
- Mac OS x86_64
- Mac OS AArch64
- Windows x86_64

Liberica NIK distribution

Liberica NIK is distributed as `.apk`, `.deb`, `.dmg`, `.msi`, `.pkg`, `.rpm`, `.tar.gz`, and `.zip` packages. Please select the most appropriate for your purposes.

2. What's New

This release contains the following updates and new features.

Notable Issues

This release does not contain any notable issues. For the list of Liberica JDK notable issues, see Liberica JDK Release Notes.

Language and framework versions

Languages and frameworks for Liberica NIK 25.0.5.0.3 are updated to the following versions:

Component	Version
Java	Liberica JDK 25.0.5.0.3+6
LLVM	20.1.4 (GraalVM CE Native 25.0.5.0.3)
Python	3.12.8 (GraalVM CE Native 25.0.5.0.3)
Node.js	22.23.4
Java	Liberica JDK 25.0.5.0.3+6
Java Script	GraalVM JavaScript (GraalVM CE Native 25.0.5.0.3)
TruffleRuby	25.0.5.0.3 (Ruby 3.3.7)
Native Image	GraalVM version 25.0.5.0.3 (Liberica JDK 25.0.5.0.3+6, LTS)

Component	Version
Wasm	WebAssembly (GraalVM CE Native 25.0.5.0.3)

3. Known Issues

This release does not contain any known issues. For the list of Liberica JDK known issues, see Liberica JDK Release Notes.

4. CVEs

This is the list of the security issues fixed in this release. CVSS scores are provided using the CVSS version 3.1 scoring system.

CVE ID	CVSS score	Component	Module	Attack Vector	Complexity	Privileges	User Interaction	Scope	Confidentiality	Integrity	Availability
CVE-2026-101516	6.5	security-libs	java.security	network	low	none	none	unchanged	low	low	none
CVE-2026-114820	9.1	security-libs	java.security	network	low	none	none	unchanged	high	high	none
CVE-2026-6732	5.9	javafx	libxml2	network	high	none	none	unchanged	none	none	high
CVE-2026-83374	5.9	security-libs	javax.crypto	network	high	none	none	unchanged	none	high	none
CVE-2026-83376	3.7	security-libs	java.security	network	high	none	none	unchanged	none	low	none
CVE-2026-83378	3.7	hotspot	compiler	network	high	none	none	unchanged	none	low	none
CVE-2026-83380	5.3	security-libs	javax.security	network	low	none	none	unchanged	low	none	none
CVE-2026-83381	4.8	security-libs	javax.security	network	high	none	none	unchanged	low	low	none
CVE-2026-83387	5.9	core-libs	java.sql	network	high	none	none	unchanged	high	none	none
CVE-2026-83395	3.7	core-libs	java.net	network	high	none	none	unchanged	none	low	none
CVE-2026-83400	5.3	xml	jaxp	network	low	none	none	unchanged	none	none	low
CVE-2026-87255	3.7	hotspot	compiler	network	high	none	none	unchanged	low	none	none
CVE-2026-87290	3.7	xml	jaxp	network	high	none	none	unchanged	low	none	none
CVE-2026-87291	5.3	core-libs	java.net	network	low	none	none	unchanged	low	none	none
CVE-2026-87292	3.7	core-libs	java.net	network	high	none	none	unchanged	none	low	none
CVE-2026-87294	6.5	security-libs	java.security	network	low	none	none	unchanged	low	low	none
CVE-2026-87367	3.7	xml	jaxp	network	high	none	none	unchanged	none	low	none
CVE-2026-91332	5.3	core-libs	java.net	network	low	none	none	unchanged	none	low	none
CVE-2026-91333	3.7	security-libs	javax.crypto	network	high	none	none	unchanged	none	low	none
CVE-2026-91334	3.7	client-libs	javax.imageio	network	high	none	none	unchanged	low	none	none
CVE-2026-91335	2.6	client-libs	java.awt	network	high	low	required	unchanged	low	none	none
CVE-2026-91373	5.3	security-libs	java.security	network	low	none	none	unchanged	none	none	low
CVE-2026-91374	4.8	core-svc	tools	network	high	none	none	unchanged	low	low	none
CVE-2026-91375	4.7	tools	jlink	local	high	none	required	unchanged	none	high	none
CVE-2026-91379	4.7	tools	jshell	local	high	none	required	unchanged	none	high	none
CVE-2026-91380	4.0	core-libs	java.util	local	high	none	none	unchanged	low	low	none

CVE ID	CVSS score	Component	Module	Attack Vector	Complexity	Privileges	User Interaction	Scope	Confidentiality	Integrity	Availability
CVE-2026-91382	6.5	client-libs	2d	network	high	none	none	unchanged	none	high	low
CVE-2026-91394	5.9	core-libs	java.net	network	high	none	none	unchanged	high	none	none
CVE-2026-91397	3.6	core-svc	tools	local	high	none	required	unchanged	none	low	low
CVE-2026-91398	6.8	core-libs	java.net	network	high	none	none	changed	none	high	none
CVE-2026-91400	3.1	client-libs	javax.sound	network	high	none	required	unchanged	none	none	low
CVE-2026-91402	3.1	javafx	graphics	network	high	none	required	unchanged	low	none	none
CVE-2026-91403	9.1	security-libs	java.security	network	low	none	none	unchanged	high	high	none
CVE-2026-91410	5.3	core-libs	java.nio	network	low	none	none	unchanged	none	none	low
CVE-2026-91411	6.5	security-libs	org.ietf.jgss	network	high	none	none	unchanged	none	low	high
CVE-2026-91415	4.8	client-libs	2d	network	high	none	none	unchanged	low	low	none
CVE-2026-91418	5.3	client-libs	javax.imageio	network	low	none	none	unchanged	none	none	low
CVE-2026-91451	5.3	core-libs	java.net	network	low	none	none	unchanged	none	low	none
CVE-2026-91452	5.3	core-libs	java.net	network	low	none	none	unchanged	none	low	none
CVE-2026-91453	5.3	core-libs	java.net	network	low	none	none	unchanged	none	low	none
CVE-2026-91461	3.7	security-libs	javax.net.ssl	network	high	none	none	unchanged	none	low	none
CVE-2026-91462	5.9	security-libs	org.ietf.jgss	network	high	none	none	unchanged	none	high	none
CVE-2026-91463	5.3	security-libs	org.ietf.jgss	network	high	none	required	unchanged	high	none	none
CVE-2026-91464	5.3	security-libs	org.ietf.jgss	network	high	none	required	unchanged	high	none	none
CVE-2026-91477	3.1	javafx	graphics	network	high	none	required	unchanged	low	none	none
CVE-2026-91487	4.8	hotspot	compiler	network	high	none	none	unchanged	low	low	none

5. Resolved Issues

Liberica NIK issues

This is the list of Liberica NIK issues fixed in this release.

Issue ID	Summary
GR-69295	Backport to 25.0.4: Ensure that code base is determined after initializing heap base.
GR-71833	Backport to 25.0: Fix resource bundle registration for java.xml.crypto TransformService
GR-72136	Backport to 25.0: InlinedInvokeArgumentsNode should be optimized based on analysis results
GR-72141	Backport to 25.0: Available memory should never exceed total memory.
GR-73049	Backport to 25.0.3: Race conditions in JfrRecurringCallbackExecutionSampler.
GR-73332	Backport to 25.0: Fix jcmd Thread.dump_to_file
GR-73535	Backport to 25.0: Disable transiently failing Windows jobs.
GR-73574	Backport to 25.0: Remove Vector API options from GraalWasm native image properties.
GR-73770	Use conservative page size for AArch64 count positives

Issue ID	Summary
GR-73806	Backport to 25.0.3: An error occurred while writing the heap dump (darwin-aarch64)
GR-73812	Backport to 25.0: Fix simplification of `x < x + a`
GR-73830	Backport to 25.0: Don't execute recurring callbacks while holding the thread mutex.
GR-73934	Backport to 25.0: Race condition in ThreadStatusTransition.fromNativeToJava(...).
GR-74026	Backport Truffle OSR fixes to GraalVM 25.0.4.
GR-74139	Backport to 25.0: Fix wrong exitcode for stdin execution
GR-74154	Backport to 25.0: Fix performance warnings.
GR-74174	Fix missing reflection registration for LocaleDisplayNamesImpl constructor.
GR-74228	Backport to 25.0: Expose an interface for MLE to check for persist abort.
GR-74237	Backport to 25.0: Update simdjson to 4.3.1
GR-74299	Backport to 25.0: Fix missing reflection registration for ICU4J.
GR-74337	Backport to 25.0: Validate memory32 offsets correctly in memory64 modules.
GR-74369	Backport to 25.0: Fix resource tracing bugs with the JVMTI tracer.
GR-74404	Backport to 25.0: Fix wasm Module prototype with source phase imports disabled.

Issue ID	Summary
GR-74440	Backport to 25.0: Upgrading Node.js version used by graal-nodejs to 22.22.2.
GR-74493	Transient Truffle gate failure in LoggingTest.testDecreaseLogLevelSingleContext.
GR-74738	Backport to 25.0: "IllegalArgumentException: 'other' has different root" on Windows
GR-74776	Backport to 25.0: Transient Truffle gate failure in LoggingTest.testDecreaseLogLevelSingleContext
GR-74781	Backport to 25.0: Add declaration for pread.
GR-74816	Use unconditional query metadata for complete reflection types
GR-74942	Backport to 25.0: Ensure ArchiveSupport extracts to intended directory
GR-74970	Backport to 25.0: ConstantsBuffer#addNull should clear its slot.
GR-74992	Document MaxStackFrames as optional for UNTRUSTED
GR-75014	mask indexed store addresses
GR-75028	Update labsjdk to 25.0.4+4-jvmci-b01
GR-75028	Update labsjdk to 25.0.4+6-jvmci-b01
GR-75028	Update labsjdk to 25.0.4+7-jvmci-b01
GR-75077	Backport to 25.0: Mask indexed store addresses.

Issue ID	Summary
GR-75171	Backport to 25.0.3: Omit statically required modules from the native image builder module path.
GR-75182	Backport to 25.0.3: Create dummy source with non-zero line number.
GR-75192	Backport to 25.0: Fix Windows condition timeout computation.
GR-75195	Backport to 25.0: Fix semaphores on Darwin.
GR-75257	Backport to 25.0: Ensure that WASI does not follow symlinks out of preopened dirs.
GR-75268	Backport to 25.0.3: TRegex: escape Truffle Source name in TRegexExecutorRootNode.toString.
GR-75370	Update OS version of Darwin CI jobs & disable sulong gcc_cpp windows job
GR-75385	Backport to 25.0: Preserve IV overflow semantics in moved compare guards
GR-75416	Backport to 25.0: Mark XMM temps for AMD64 CPU feature region vzeroupper
GR-75462	Backport Bouncy Castle 1.84 to 25.0
GR-75486	Backport to 25.0: Do not allow loading language-internal files when loading DWARF debug sources.
GR-75503	Fix Graph.Mark equality across compression epochs
GR-75515	Backport to 25.0: Correction of migration of OtherContextGuestObject through several contexts.

Issue ID	Summary
GR-75525	Backport to 25.0: Fix Graph.Mark equality across compression epochs
GR-75561	Backport to 25.0: Use conservative page size for AArch64 count positives
GR-75567	Fix CompareNode implication polarity
GR-75568	Fix narrow IntegerStamp shift folding
GR-75568	Fix narrow unsigned shift canonicalization
GR-75570	Fix MulNode long constant decomposition
GR-75678	Publish javadoc only from master and release branches.
GR-75723	Backport to 25.0: Fix for MethodHandles types.
GR-75756	Backport to 25.0: Fix CompareNode implication polarity
GR-75785	Backport to 25.0: Fix MulNode 64-bit constant decomposition
GR-75813	Backport to 25.0: Document optional MaxStackFrames for UNTRUSTED sandbox policy
GR-75836	Backport to 25.0: Fix narrow IntegerStamp shift folding
GR-75845	Backport to 25.0: Fix Long.MIN_VALUE < normalizeCompare(a, b) folding
GR-75851	CompositeFileSystem symlink target mismatch.

Issue ID	Summary
GR-75865	Backport to 25.0: TRegex: Add resource limits for TRegex parser expansion, lookaround merging, backtracking stack, and parser nesting.
GR-75919	Backport to 25.0: CompositeFileSystem symlink target mismatch.
GR-75956	Backport to 25.0.4: Unset mark status of all objects in fixup phase.
GR-75960	Backport to 25.0.4: Don’t do an incremental GC before a forced full GC with CompactingOldGen.
GR-75963	Backport to 25.0.4: Do not forfeit memory for compaction due to sweeping.
GR-75966	Backport to 25.0.4: Fix TLAB filler object size computation.
GR-75969	Backport to 25.0.4: When doing a last resort OOM collection, use memory in swept chunks for compaction.
GR-75972	Backport to 25.0.4: Unify redundant code paths.
GR-75975	Backport to 25.0.4: Avoid unnecessary safepoint checks for code cache accesses during GC.
GR-75978	Backport to 25.0.4: Split object arrays in ranges for marking.
GR-75981	Backport to 25.0.4: Fix GC policy timers and enable timer assertions.
GR-75984	Backport to 25.0.4: Lower throughput goal to 50% and min GC distance to 20ms.
GR-75990	Backport to 25.0: Tighten MethodHandleNode type guard
GR-75994	Backport to 25.0: Ignore eliminated locks during materialization

Issue ID	Summary
GR-76118	Backport to 25.0: Use explicit speculation fence nodes
GR-76171	Cover captured serializable lambda metadata
GR-76171	Keep serializable lambda metadata scoped
GR-76171	Register serializable lambda metadata capturing classes
GR-76201	Backport to 25.0: Bind toolserver to localhost only
GR-76217	Use Labs OpenJDK-compatible JDK checksums
GR-76276	Backport to 25.0: Make bundle path maps portable.
GR-76535	Remove capabilities that require a12c machines.
GR-76642	Refresh 25.0 JDK file annotations
GR-77659	Prevent unsafe address offset rewrites
GR-77671	Regression tests for Speculative Guard Movement
GR-78045	Apply formatter fixes
GR-78045	Fix speculative guard movement backport compilation

6. Upgrading to the New Version

To keep your Liberica NIK up-to-date and secure, always upgrade to the newest available version once it is released. To upgrade, install the new version over the previous one. For the installation instructions, see Liberica NIK Installation Guide.



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