# Liberica Native Image Kit 24.0.1+1 (22.0.1+10)
## Release Notes

**be//soft**

# Contents

# 1. Introduction

This document provides information about Liberica NIK release.

This particular version of Liberica NIK 24.0.1+1 is based on Liberica JDK 22.0.1+10.

> ✎ **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

Liberica NIK 24.0.1 supports the following languages and frameworks:

| Component | Version |
| --- | --- |
| LLVM | 16.0.1 (GraalVM CE Native 24.0.1) |
| Python | 3.10.13 (GraalVM CE Native 24.0.1) |
| NodeJS | 18.19.1 |
| Java | Liberica JDK 22.0.1+10 |
| Java Script | GraalVM JavaScript (GraalVM CE Native 24.0.1) |
| TruffleRuby | 24.0.1 (Ruby 3.2.2) |
| Native Image | GraalVM version 24.0.1 (Liberica JDK 22.0.1+10, LTS) |

| Component | Version |
|-----------|---------|
| Wasm | WebAssembly (GraalVM CE Native 24.0.1) |

# 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-2023-46809 | 6.8 | node.js | crypto | network | high | low | none | unchanged | high | high | none |
| CVE-2023-5678 | 5.3 | node.js | openssl | network | low | none | none | unchanged | none | none | low |
| CVE-2023-6129 | 6.5 | node.js | openssl | network | high | none | none | unchanged | none | low | high |
| CVE-2024-0727 | 5.5 | node.js | openssl | local | low | none | required | unchanged | none | none | high |
| CVE-2024-21011 | 3.7 | hotspot | runtime | network | high | none | none | unchanged | none | none | low |
| CVE-2024-21012 | 3.7 | core-libs | java.net | network | high | none | none | unchanged | none | low | none |
| CVE-2024-21068 | 3.7 | hotspot | compiler | network | high | none | none | unchanged | none | low | none |
| CVE-2024-21892 | 7.5 | node.js | credentials | local | high | low | none | changed | high | high | none |
| CVE-2024-22019 | 7.5 | node.js | llhttp | network | low | none | none | unchanged | none | none | high |
| CVE-2024-22025 | 6.5 | node.js | zlib | network | low | none | required | unchanged | none | none | high |
| CVE-2024-24758 | 3.9 | node.js | undici | network | high | high | required | unchanged | low | low | low |
| CVE-2024-24806 | 7.3 | node.js | libuv | network | low | none | none | unchanged | low | low | low |

# 5. Resolved Issues

## Liberica NIK issues

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

| Issue ID | Summary |
| --- | --- |
| GR-50768 | new dev cycle GraalVM 24.0.1 |
| GR-51274 | Backport removal of the GraalVM Component Updater (gu) and the installables. |
| GR-51529 | FileSystemsTest#testSetAttribute() fails on JDK-23-linux. |
| GR-51666 | Backport to 24.0: Use safe abs in loop opts. |
| GR-52224 | Backport to 24.0: loop fragment: ensure we are not killing control flow when we have nodes in head/tail counted position that are actually empty themselves (skipable) |
| GR-52246 | Backport to 24.0: Document `-O`, `-march`, and build artifacts. |
| GR-52277 | Fix a deadlock in IsolateAwareTruffleCompiler.tearDownIsolateOnShutdown. |
| GR-52312 | Backport to 24.0: Register the virtual thread group unconditionally. |
| GR-52324 | Add InsertGuardFencesPhase into runtime compilation phases. |
| GR-52434 | Backport to 24.0: Small fixes and improvements. |

| Issue ID | Summary |
|----------|---------|
| GR-52434 | ExitOnOutOfMemoryError must wait until HeapDumpOnOutOfMemoryError finishes. |
| GR-52457 | Backport to 24.0: Fix single stepping in Espresso JDWP when stepping within not yet loaded code. |
| GR-52466 | Backport to 24.0: Upgrading the underlying Node.js to version 18.19.1. |
| GR-52468 | Backport to 24.0: Fix NPE in JDWP when debugger asks for local variable table. |
| GR-52502 | Backport to 24.0: MoveGuardsUpwards: respect dom tree. |
| GR-52532 | Backport to 24.0: Deprecate ZeroExtendNode.inputAlwaysPositive. |
| GR-52602 | Backport to 24.0 : Update -g to include all information for profiling. Fix the problem with objcopy strip command. |
| GR-52613 | Improve a code installation error message. |
| GR-52616 | Limit Log.exception() output. |
| GR-52616 | Prevent register writes from floating. |
| GR-52623 | Backport to 24.0: Add InsertGuardFencesPhase into runtime compilation phases. |
| GR-52657 | Fix simplification of always-deopt FixedGuard. |
| GR-52696 | Update labsjdk to 22.0.1+8-jvmci-b01. |
| GR-52708 | Backport to 24.0: pi node: guard against deletion in recursion |
| GR-52735 | Backport to 24.0: Fix simplification of always-deopt FixedGuard. |

| Issue ID | Summary |
|----------|---------|
| GR-52750 | Backport to 24.0: Report error if building static executable without musl libc. |
| GR-52782 | Remove project definitions that hardcode GraalVM versions in pom files. |
| GR-52840 | Backport to 24.0: Instanceof operator should check whether the left side is a (foreign) object. |
| GR-52910 | Backport to 24.0: Fix caching of Regexps. |
| GR-52921 | Mark installDeoptimizedFrame() as @Uninterruptible. |
| GR-52921 | Remove DumpTopDeoptimizedFrame. |
| GR-52946 | Backport to 24.0 : GH-8638: Correctness problem when System.arraycopy a byte array. |
| GR-53257 | release GraalVM 24.0.1 |

# 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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