

# Liberica JDK 21.0.3+10

## Release Notes



Liberica JDK  
21.0.3  
April 16, 2024

**be//soft**

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# 1. Introduction

This document provides the late-breaking information about Liberica JDK 21.0.3 release.

The full version string for this update release is 21.0.3+10. The version number is 21.

## 2. Liberica JDK 21.0.3+10

Liberica is a certified, Java SE 21-compliant distribution of OpenJDK 21, which works on server (Linux x86\_64, Linux ARM64, Windows 64), desktop (Windows 64, Mac, Linux x86\_64), and embedded devices (Linux ARM64, Linux ARMv7, including Raspberry Pi 2 & 3 (ARMv6 hardfloat)). It has the following notable additions:

- Linux x86\_64 version contains support for ZGC.
- Linux x86\_64, ARMv8 and ARMv7 distributions include a choice of Client VM, Server VM and Minimal VM.
- Alpine Linux x86\_64 and aarch64 are built with musl support.
- Windows x86\_64, Windows ARMv8, Mac, Linux x86\_64, and Linux ARMv7 distributions contain OpenJFX 21.
- Linux ARMv7 distribution contains Device IO API compiled for Raspberry Pi.

Refer to the Oracle JDK 21.0.3 release notes for further information on JDK 21 features. This document further outlines the peculiarities of Liberica distribution as compared to Oracle JDK 21 distribution.

## 3. Liberica JDK 21 distribution

Liberica JDK 21 is distributed as .rpm, .zip, .deb and .tar.gz packages. Please select the most appropriate for your purposes.

Liberica JDK 21 introduced all [new features](#) supported by OpenJDK 21.

With the introduction of the Jigsaw feature in JDK 9 and Minimal VM it is now possible to create a Runtime that is sufficient to run your application and trim down the size of the Runtime. To generate a Runtime with just the Minimal VM, add `--vm=minimal` to jlink options.

By default, the Liberica uses Server VM. Server VM and Client VM can be enabled with `-server` and `-client` command line options, respectively. In case the deployment requires minimizing the footprint, it may be beneficial to use Minimal VM, which emphasis is a minimal footprint. It has C1 JIT compiler only, Serial GC and no serviceability features.

# 4. Security Baselines

BellSoft Liberica follows the security baselines for Oracle Java SE. Please refer to the Oracle documentation for a list of issues fixed in a given release.

# 5. Known Issues

This release does not contain any known issues.

## 6. 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-2023-41993	7.5	javafx	web	network	high	none	required	unchanged	high	high	high
CVE-2024-21002	2.5	javafx	graphics	local	high	none	required	unchanged	none	low	none
CVE-2024-21003	3.1	javafx	graphics	network	high	none	required	unchanged	none	low	none
CVE-2024-21004	2.5	javafx	window-toolkit	local	high	none	required	unchanged	none	low	none
CVE-2024-21005	3.1	javafx	graphics	network	high	none	required	unchanged	none	low	none
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-2024-21094	3.7	hotspot	compiler	network	high	none	none	unchanged	none	low	none

# 7. Notable Issues

This is the list of the notable issues fixed in this release.

Issue ID	
JDK-8315230	<p>Summary: Add a new subsection for TOOLING script in the JShell Guide</p> <p>Description: Since JDK version 21 the JShell tool for interactive exploration of Java code has been enhanced with a new predefined script - TOOLING. The script description was added to the JShell Guide.</p>
JDK-8322388	<p>Summary: javac erroneously allows 'final' in front of a record pattern</p> <p>Description: javac erroneously allowed 'final' in front of a record pattern, which is not allowed by the Java Language Specification. Programs that could be compiled erroneously with <code>final</code> will now fail to compile.</p>
JDK-8323776	<p>Summary: Update XML Security for Java to 3.0.3</p> <p>Description: The XML Signature implementation has been updated to Santuario 3.0.3. Support for four new SHA-3 based RSA-MGF1 SignatureMethod algorithms have been added: <code>SignatureMethod.SHA3_224_RSA_MGF1</code>, <code>SignatureMethod.SHA3_256_RSA_MGF1</code>, <code>SignatureMethod.SHA3_384_RSA_MGF1</code>, and <code>SignatureMethod.SHA3_512_RSA_MGF1</code>.</p>
JDK-8326476	<p>Summary: Add Certainly roots R1 and E1</p> <p>Description: Certainly Root R1 CA certificate was added.</p>
JDK-8326765	<p>Summary: Make TrimNativeHeapInterval a product switch</p> <p>Description: <code>TrimNativeHeapInterval</code> has been made an official product switch. It allows the JVM to trim the native heap at periodic intervals. This option is only available on Linux with glibc.</p>

**Issue ID**

JDK-8327265

Summary: Test 'api/java\_awt/interactive/SystemTrayTests.html' failed because A blue ball icon is added outside of the system tray

Description: When pressing the 'Add tray icon' button, the blue ball icon is now added to the system tray.

# 8. Resolved Issues

## JDK issues

This is the list of general JDK issues fixed in this release.

Issue ID	Summary
JDK-6928542	Chinese characters in RTF are not decoded
JDK-8009550	PlatformPCSC should load versioned so
JDK-8077371	Binary files in JAXP test should be removed
JDK-8169475	WheelModifier.java fails by timeout
JDK-8209595	MonitorVmStartTerminate.java timed out
JDK-8210410	Refactor java.util.Currency:i18n shell tests to plain java tests
JDK-8261837	SIGSEGV in ciVirtualCallTypeData::translate_from
JDK-8263256	Test java/net/Inet6Address/serialize/Inet6AddressSerializationTest.java fails due to dynamic reconfigurations of network interface during test
JDK-8264899	C1: -XX:AbortVMOnException does not work if all methods in the call stack are compiled with C1 and there are no exception handlers
JDK-8274122	java/io/File/createTempFile/SpecialTempFile.java fails in Windows 11
JDK-8295343	sun/security/pkcs11 tests fail on Linux RHEL 8.6 and newer

Issue ID	Summary
JDK-8296631	NSS tests failing on OL9 linux-aarch64 hosts
JDK-8301310	The SendRawSysexMessage test may cause a JVM crash
JDK-8304020	Speed up test/jdk/java/util/zip/ZipFile/TestTooManyEntries.java and clarify its purpose
JDK-8304292	Memory leak related to ClassLoader::update_class_path_entry_list
JDK-8305962	update jcstress to 0.16
JDK-8305971	NPE in JavacProcessingEnvironment for missing enum constructor body
JDK-8306922	IR verification fails because IR dump is chopped up
JDK-8307408	Some jdk/sun/tools/jhsdb tests don't pass test JVM args to the debuggee JVM
JDK-8309109	AArch64: [TESTBUG] compiler/intrinsics/sha/cli/TestUseSHA3IntrinsicsOptionOnSupportedCPU.java fails on Neoverse N2 and V1
JDK-8309203	C2: remove copy-by-value of GrowableArray for InterfaceSet
JDK-8309302	java/net/Socket/Timeouts.java fails with AssertionError on test temporal post condition
JDK-8309697	[TESTBUG] Remove "@requires vm.flagless" from jtreg vectorization tests
JDK-8310031	Parallel: Implement better work distribution for large object arrays in old gen
JDK-8310238	[test bug] javax/swing/JTableHeader/6889007/bug6889007.java fails
JDK-8310308	IR Framework: check for type and size of vector nodes

Issue ID	Summary
JDK-8310629	java/security/cert/CertPathValidator/OCSP/OCSPTimeout.java fails with RuntimeException Server not ready
JDK-8310631	test/jdk/sun/nio/cs/TestCharsetMapping.java is spuriously passing
JDK-8310807	java/nio/channels/DatagramChannel/Connect.java timed out
JDK-8310844	[AArch64] C1 compilation fails because monitor offset in OSR buffer is too large for immediate
JDK-8310919	runtime/ErrorHandling/TestAbortVmOnException.java times out due to core dumps taking a long time on OSX
JDK-8310923	Refactor Currency tests to use JUnit
JDK-8311081	KeytoolReaderP12Test.java fail on localized Windows platform
JDK-8311279	TestStressIGVNAndCCP.java failed with different IGVN traces for the same seed
JDK-8311581	Remove obsolete code and comments in TestLVT.java
JDK-8311588	C2: RepeatCompilation compiler directive does not choose stress seed randomly
JDK-8311663	Additional refactoring of Locale tests to JUnit
JDK-8311893	Interactive component with ARIA role 'tabpanel' does not have a programmatically associated name
JDK-8311986	Disable runtime/os/TestTracePageSizes.java for ShenandoahGC
JDK-8311992	Test java/lang/Thread/virtual/JfrEvents::testVirtualThreadPinned failed

Issue ID	Summary
JDK-8312136	Modify runtime/ErrorHandling/TestDwarf.java to split dwarf and decoder testing
JDK-8312416	Tests in Locale should have more descriptive names
JDK-8312428	PKCS11 tests fail with NSS 3.91
JDK-8312916	Remove remaining usages of -Xdebug from test/hotspot/jtreg
JDK-8313082	Enable CreateCoredumpOnCrash for testing in makefiles
JDK-8313229	DHEKeySizing.java should be modified to use TLS versions TLSv1, TLSv1.1, TLSv1.2
JDK-8313507	Remove pkcs11/Cipher/TestKATForGCM.java from ProblemList
JDK-8313621	test/jdk/jdk/internal/math/FloatingDecimal/TestFloatingDecimal should use RandomFactory
JDK-8313638	Add test for dump of resolved references
JDK-8313670	Simplify shared lib name handling code in some tests
JDK-8313720	C2 SuperWord: wrong result with -XX:+UseVectorCmov -XX:+UseCMoveUnconditionally
JDK-8313816	Accessing jmethodID might lead to spurious crashes
JDK-8313854	Some tests in serviceability area fail on localized Windows platform
JDK-8314164	java/net/URLConnection/URLConnectionExpectContinueTest.java fails intermittently in timeout
JDK-8314220	Configurable InlineCacheBuffer size

Issue ID	Summary
JDK-8314283	Support for NSS tests on aarch64 platforms
JDK-8314320	Mark runtime/CommandLine/ tests as flagless
JDK-8314333	Update com/sun/jdi/ProcessAttachTest.java to use ProcessTools.createTestJvm(..)
JDK-8314513	[IR Framework] Some internal IR Framework tests are failing after JDK-8310308 on PPC and Cascade Lake
JDK-8314578	Non-verifiable code is emitted when two guards declare pattern variables in colon-switch
JDK-8314610	hotspot can't compile with the latest of gtest because of <iomanip>
JDK-8314612	TestUnorderedReduction.java fails with -XX:MaxVectorSize=32 and -XX:+AlignVector
JDK-8314629	Generational ZGC: Clearing All SoftReferences log line lacks GCId
JDK-8314829	serviceability/sa/jmap-hprof/JMapHProfLargeHeapTest.java ignores vm flags
JDK-8314830	runtime/ErrorHandling/ tests ignore external VM flags
JDK-8314831	NMT tests ignore vm flags
JDK-8314835	gtest wrappers should be marked as flagless
JDK-8314837	5 compiled/codecache tests ignore VM flags
JDK-8314838	3 compiler tests ignore vm flags
JDK-8314990	Generational ZGC: Strong OopStorage stats reported as weak roots

Issue ID	Summary
JDK-8315034	File.mkdirs() occasionally fails to create folders on Windows shared folder
JDK-8315042	NPE in PKCS7.parseOldSignedData
JDK-8315097	Rename createJavaProcessBuilder
JDK-8315241	(fs) Move toRealPath tests in java/nio/file/Path/Misc.java to separate JUnit 5 test
JDK-8315406	[REDO] serviceability/jdwp/AllModulesCommandTest.java ignores VM flags
JDK-8315594	Open source few headless Swing misc tests
JDK-8315600	Open source few more headless Swing misc tests
JDK-8315602	Open source swing security manager test
JDK-8315611	Open source swing text/html and tree test
JDK-8315680	java/lang/ref/ReachabilityFenceTest.java should run with -Xbatch
JDK-8315708	Enhance HTTP/2 client usage
JDK-8315721	CloseRace.java#id0 fails transiently on libgraal
JDK-8315726	Open source several AWT applet tests
JDK-8315731	Open source several Swing Text related tests
JDK-8315761	Open source few swing JList and JMenuBar tests
JDK-8315891	java/foreign/TestLinker.java failed with "error occurred while instantiating class TestLinker: null"

Issue ID	Summary
JDK-8315986	[macos14] javax/swing/JMenuItem/4654927/bug4654927.java: component must be showing on the screen to determine its location
JDK-8315988	Parallel: Make TestAggressiveHeap use createTestJvm
JDK-8316001	GC: Make TestArrayAllocatorMallocLimit use createTestJvm
JDK-8316028	Update FreeType to 2.13.2
JDK-8316106	Open source few swing JInternalFrame and JMenuBar tests
JDK-8316132	CDSProtectionDomain::get_shared_protection_domain should check for exception
JDK-8316229	Enhance class initialization logging
JDK-8316309	AArch64: VMError::print_native_stack() crashes on Java native method frame
JDK-8316319	Generational ZGC: The SoftMaxHeapSize might be wrong when CDS decreases the MaxHeapSize
JDK-8316392	compiler/interpreter/TestVerifyStackAfterDeopt.java failed with SIGBUS in PcDescContainer::find_pc_desc_internal
JDK-8316410	GC: Make TestCompressedClassFlags use createTestJvm
JDK-8316445	Mark com/sun/management/HotSpotDiagnosticMXBean/CheckOrigin.java as vm.flagless
JDK-8316446	4 sun/management/jdp tests ignore VM flags
JDK-8316447	8 sun/management/jmxremote tests ignore VM flags

Issue ID	Summary
JDK-8316462	sun/jvmsstat/monitor/MonitoredVm/MonitorVmStartTerminate.java ignores VM flags
JDK-8316464	3 sun/tools tests ignore VM flags
JDK-8316562	serviceability/sa/jmap-hprof/JMapHProfLargeHeapTest.java times out after JDK-8314829
JDK-8316594	C2 SuperWord: wrong result with hand unrolled loops
JDK-8316661	CompilerThread leaks CodeBlob memory when dynamically stopping compiler thread in non-product
JDK-8316693	Simplify at-requires checkDockerSupport()
JDK-8316947	Write a test to check textArea triggers MouseEntered/MouseExited events properly
JDK-8316961	Fallback implementations for 64-bit Atomic::{add,xchg} on 32-bit platforms
JDK-8316973	GC: Make TestDisableDefaultGC use createTestJvm
JDK-8317042	G1: Make TestG1ConcMarkStepDurationMillis use createTestJvm
JDK-8317144	Exclude sun/security/pkcs11/sslecc/ClientJSSEServerJSSE.java on Linux ppc64le
JDK-8317188	G1: Make TestG1ConcRefinementThreads use createTestJvm
JDK-8317218	G1: Make TestG1HeapRegionSize use createTestJvm
JDK-8317228	GC: Make TestXXXHeapSizeFlags use createTestJvm
JDK-8317300	javac erroneously allows "final" in front of a record pattern

Issue ID	Summary
JDK-8317307	test/jdk/com/sun/jndi/ldap/LdapPoolTimeoutTest.java fails with ConnectException: Connection timed out: no further information
JDK-8317316	G1: Make TestG1PercentageOptions use createTestJvm
JDK-8317317	G1: Make TestG1RemSetFlags use createTestJvm
JDK-8317343	GC: Make TestHeapFreeRatio use createTestJvm
JDK-8317347	Parallel: Make TestInitialTenuringThreshold use createTestJvm
JDK-8317358	G1: Make TestMaxNewSize use createTestJvm
JDK-8317522	Test logic for BODY_CF in AbstractThrowingSubscribers.java is wrong
JDK-8317535	Shenandoah: Remove unused code
JDK-8317771	[macos14] Expand/collapse a JTree using keyboard freezes the application in macOS 14 Sonoma
JDK-8317804	com/sun/jdi/JdwpAllowTest.java fails on Alpine 3.17 / 3.18
JDK-8318039	GHA: Bump macOS and Xcode versions
JDK-8318082	ConcurrentModificationException from IndexWriter
JDK-8318154	Improve stability of WheelModifier.java test
JDK-8318157	RISC-V: implement ensureMaterializedForStackWalk intrinsic
JDK-8318158	RISC-V: implement roundD/roundF intrinsics
JDK-8318340	Improve RSA key implementations

Issue ID	Summary
JDK-8318410	jdk/java/lang/instrument/BootClassPath/BootClassPathTest.sh fails on Japanese Windows
JDK-8318468	compiler/tiered/LevelTransitionTest.java fails with -XX:CompileThreshold=100 -XX:TieredStopAtLevel=1
JDK-8318490	Increase timeout for JDK tests that are close to the limit when run with libgraal
JDK-8318590	JButton ignores margin when painting HTML text
JDK-8318603	Parallelize sun/java2d/marlin/ClipShapeTest.java
JDK-8318607	Enable parallelism in vmTestbase/nsk/stress/jni tests
JDK-8318608	Enable parallelism in vmTestbase/nsk/stress/threads tests
JDK-8318613	ChoiceFormat patterns are not well tested
JDK-8318689	jtreg is confused when folder name is the same as the test name
JDK-8318696	Do not use LFS64 symbols on Linux
JDK-8318737	Fallback linker passes bad JNI handle
JDK-8318809	java/util/concurrent/ConcurrentLinkedQueue/WhiteBox.java shows intermittent failures on linux ppc64le and aarch64
JDK-8318964	Fix build failures caused by 8315097
JDK-8318971	Better Error Handling for Jar Tool When Processing Non-existent Files
JDK-8318983	Fix comment typo in PKCS12Passwd.java
JDK-8319103	Popups that request focus are not shown on Linux with Wayland

Issue ID	Summary
JDK-8319124	Update XML Security for Java to 3.0.3
JDK-8319128	sun/security/pkcs11 tests fail on OL 7.9 aarch64
JDK-8319136	Skip pkcs11 tests on linux-aarch64
JDK-8319137	release _object in ObjectMonitor dtor to avoid races
JDK-8319213	Compatibility.java reads both stdout and stderr of JdkUtils
JDK-8319314	NMT detail report slow or hangs for large number of mappings
JDK-8319372	C2 compilation fails with "Bad immediate dominator info"
JDK-8319382	com/sun/jdi/JdwpAllowTest.java shows failures on AIX if prefixLen of mask is larger than 32 in IPv6 case
JDK-8319456	jdk/jfr/event/gc/collection/TestGCCauseWith[Serial Parallel].java : GC cause 'GCLocker Initiated GC' not in the valid causes
JDK-8319548	Unexpected internal name for Filler array klass causes error in VisualVM
JDK-8319569	Several java/util tests should be updated to accept VM flags
JDK-8319633	runtime/posixSig/TestPosixSig.java intermittent timeouts on UNIX
JDK-8319668	Fixup of jar filename typo in BadFactoryTest.sh
JDK-8319777	Zero: Support 8-byte cmpxchg
JDK-8319851	Improve exception logging
JDK-8319879	Stress mode to randomize incremental inlining decision

Issue ID	Summary
JDK-8319883	Zero: Use atomic built-ins for 64-bit accesses
JDK-8319897	Move StackWatermark handling out of LockStack::contains
JDK-8319938	TestFileChooserSingleDirectorySelection.java fails with "getSelectedFiles returned empty array"
JDK-8320052	Zero: Use __atomic built-ins for atomic RMW operations
JDK-8320145	Compiler should accept final variable in Record Pattern
JDK-8320168	handle setsockopt return values
JDK-8320206	Some intrinsics/stubs missing vzeroupper on x86_64
JDK-8320208	Update Public Suffix List to b5bf572
JDK-8320300	Adjust hs_err output in malloc/mmap error cases
JDK-8320303	Allow PassFailJFrame to accept single window creator
JDK-8320309	AIX: pthreads created by foreign test library don't work as expected
JDK-8320383	refresh libraries cache on AIX in VMError::report
JDK-8320582	Zero: Misplaced CX8 enablement flag
JDK-8320798	Console read line with zero out should zero out underlying buffer
JDK-8320807	[PPC64] [ZGC] C1 generates wrong code for atomics
JDK-8320830	[AIX] Dont mix os::dll_load() with direct dlclose() calls

Issue ID	Summary
JDK-8320877	Shenandoah: Remove ShenandoahUnloadClassesFrequency support
JDK-8320888	Shenandoah: Enable ShenandoahVerifyOptoBarriers in debug builds
JDK-8320890	[AIX] Find a better way to mimic dl handle equality
JDK-8320898	exclude compiler/vectorapi/reshape/TestVectorReinterpret.java on ppc64(le) platforms
JDK-8320907	Shenandoah: Remove ShenandoahSelfFixing flag
JDK-8320921	GHA: Parallelize hotspot_compiler test jobs
JDK-8320937	support latest VS2022 MSC_VER in abstract_vm_version.cpp
JDK-8320943	Files/probeContentType/Basic.java fails on latest Windows 11 - content type mismatch
JDK-8321120	Shenandoah: Remove ShenandoahElasticTLAB flag
JDK-8321122	Shenandoah: Remove ShenandoahLoopOptsAfterExpansion flag
JDK-8321131	Console read line with zero out should zero out underlying buffer in JLine
JDK-8321151	JDK-8294427 breaks Windows L&F on all older Windows versions
JDK-8321164	javac with annotation processor throws AssertionError: Filling jrt:/... during JarFileObject[...]
JDK-8321215	Incorrect x86 instruction encoding for VSIB addressing mode
JDK-8321269	Require platforms to define DEFAULT_CACHE_LINE_SIZE

Issue ID	Summary
JDK-8321374	Add a configure option to explicitly set CompanyName property in VersionInfo resource for Windows exe/dll
JDK-8321408	Add Certainly roots R1 and E1
JDK-8321409	Console read line with zero out should zero out underlying buffer in JLine (redux)
JDK-8321410	Shenandoah: Remove ShenandoahSuspendibleWorkers flag
JDK-8321480	ISO 4217 Amendment 176 Update
JDK-8321542	C2: Missing ChaCha20 stub for x86_32 leads to crashes
JDK-8321582	yield <primitive-type>.class not parsed correctly.
JDK-8321599	Data loss in AVX3 Base64 decoding
JDK-8321619	Generational ZGC: ZColorStoreGoodOopClosure is only valid for young objects
JDK-8321894	Bump update version for OpenJDK: 21.0.3
JDK-8321972	test runtime/Unsafe/InternalErrorTest.java timeout on linux-riscv64 platform
JDK-8321974	Crash in ciKlass::is_subtype_of because TypeAryPtr::_klass is not initialized
JDK-8322040	Missing array bounds check in ClassReader.parameter
JDK-8322098	os::Linux::print_system_memory_info enhance the THP output with /sys/kernel/mm/transparent_hugepage/hpage_pmd_size
JDK-8322122	Enhance generation of addresses
JDK-8322142	JFR: Periodic tasks aren't orphaned between recordings

Issue ID	Summary
JDK-8322159	ThisEscapeAnalyzer crashes for erroneous code
JDK-8322255	Generational ZGC: ZPageSizeMedium should be set before MaxTenuringThreshold
JDK-8322279	Generational ZGC: Use ZFragmentationLimit and ZYoungCompactionLimit as percentage instead of multiples
JDK-8322282	Incorrect LoaderConstraintTable::add_entry after JDK-8298468
JDK-8322321	Add man page doc for -XX:+VerifySharedSpaces
JDK-8322417	Console read line with zero out should zero out when throwing exception
JDK-8322418	Problem list gc/TestAllocHumongousFragment.java subtests for 8298781
JDK-8322512	StringBuffer.repeat does not work correctly after toString() was called
JDK-8322583	RISC-V: Enable fast class initialization checks
JDK-8322725	(tz) Update Timezone Data to 2023d
JDK-8322750	Test "api/java_awt/interactive/SystemTrayTests.html" failed because A blue ball icon is added outside of the system tray
JDK-8322772	Clean up code after JDK-8322417
JDK-8322783	prioritize /etc/os-release over /etc/SuSE-release in hs_err/info output
JDK-8322790	RISC-V: Tune costs for shuffles with no conversion
JDK-8322957	Generational ZGC: Relocation selection must join the STS
JDK-8323008	filter out harmful -std* flags added by autoconf from CXX

Issue ID	Summary
JDK-8323021	Shenandoah: Encountered reference count always attributed to first worker thread
JDK-8323065	Unnecessary CodeBlob lookup in CompiledIC::internal_set_ic_destination
JDK-8323086	Shenandoah: Heap could be corrupted by oom during evacuation
JDK-8323101	C2: assert(n→in(0) == nullptr) failed: divisions with zero check should already have bailed out earlier in split-if
JDK-8323154	C2: assert(cmp != nullptr && cmp→Opcode() == Op_Cmp(bt)) failed: no exit test
JDK-8323243	JNI invocation of an abstract instance method corrupts the stack
JDK-8323331	fix typo hpage_pdm_size
JDK-8323428	Shenandoah: Unused memory in regions compacted during a full GC should be mangled
JDK-8323515	Create test alias "all" for all test roots
JDK-8323637	Capture hotspot replay files in GHA
JDK-8323640	[TESTBUG]testMemoryFailCount in jdk/internal/platform/docker/TestDockerMemoryMetrics.java always fail because OOM killed
JDK-8323659	LinkedTransferQueue add and put methods call overridable offer
JDK-8323664	java/awt/font/JNICheck/FreeTypeScalerJNICheck.java still fails with JNI warning on some Windows configurations
JDK-8323667	Library debug files contain non-reproducible full gcc include paths

Issue ID	Summary
JDK-8323671	DevKit build gcc libraries contain full paths to source location
JDK-8323717	Introduce test keyword for tests that need external dependencies
JDK-8323964	runtime/Thread/ThreadCountLimit.java fails intermittently on AIX
JDK-8324050	Issue store-store barrier after re-materializing objects during deoptimization
JDK-8324280	RISC-V: Incorrect implementation in VM_Version::parse_satp_mode
JDK-8324347	Enable "maybe-uninitialized" warning for FreeType 2.13.1
JDK-8324514	ClassLoaderData::print_on should print address of class loader
JDK-8324598	use mem_unit when working with sysinfo memory and swap related information
JDK-8324637	[aix] Implement support for reporting swap space in jdk.management
JDK-8324647	Invalid test group of lib-test after JDK-8323515
JDK-8324659	GHA: Generic jtreg errors are not reported
JDK-8324753	[AIX] adjust os_posix after JDK-8318696
JDK-8324858	[vectorapi] Bounds checking issues when accessing memory segments
JDK-8324874	AArch64: crypto pmull based CRC32/CRC32C intrinsics clobber V8-V15 registers
JDK-8324937	GHA: Avoid multiple test suites per job
JDK-8325074	ZGC fails assert(index == 0    is_power_of_2(index)) failed: Incorrect load shift: 11

Issue ID	Summary
JDK-8325096	Test java/security/cert/CertPathBuilder/akiExt/AKISerialNumber.java is failing
JDK-8325150	(tz) Update Timezone Data to 2024a
JDK-8325194	GHA: Add macOS M1 testing
JDK-8325254	CKA_TOKEN private and secret keys are not necessarily sensitive
JDK-8325444	GHA: JDK-8325194 causes a regression
JDK-8325470	[AIX] use fclose after fopen in read_psinfo
JDK-8325496	Make TrimNativeHeapInterval a product switch
JDK-8325672	C2: allocate PhaseIdealLoop::_loop_or_ctrl from C→comp_arena()
JDK-8325876	crashes in docker container tests on Linuxppc64le Power8 machines
JDK-8326000	Remove obsolete comments for class sun.security.ssl.SunJSSE
JDK-8327391	Add SipHash attribution file

## JFX issues

This is the list of JFX issues fixed in this release.

Issue ID	Summary
JDK-8221261	Deadlock on macOS in JFXPanel app when handling IME calls
JDK-8313032	Enhanced handling of Glass

Issue ID	Summary
JDK-8313040	Enhanced Font handling
JDK-8313064	General enhancements of image handling
JDK-8313072	Enhanced handling of Fonts
JDK-8318614	Update WebKit to 617.1
JDK-8320441	Additional fix for JDK-8313032
JDK-8321970	New table columns don't appear when using fixed cell size unless refreshing tableView
JDK-8322236	Build failure after JDK-8313064
JDK-8322703	Intermittent crash in WebView in a JFXPanel from IME calls on macOS
JDK-8322795	CSS performance regression up to 10x
JDK-8323221	Create release notes for JavaFX 21.0.2
JDK-8323830	Change JavaFX release version to 21.0.3 in jfx21u
JDK-8324337	Cherry-pick WebKit 617.1 stabilization fixes
JDK-8325154	resizeColumnToFitContent is slower than it needs to be
JDK-8325258	Additional WebKit 617.1 fixes from WebKitGTK 2.42.5
JDK-8326989	Text selection issues on WebView after WebKit 617.1
JDK-8327177	macOS: wrong GlobalRef deleted in GlassMenu



Liberica JDK 21.0.3+10  
Release Notes

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