

Liberica JDK 21.0.12+10

Release Notes



Liberica JDK
21.0.12
July 21, 2026

be//soft

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1. Version information

This document provides information about Liberica JDK 21.0.12 release. The full version string for this update release is 21.0.12+10. The version number is 21.

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

2. What's New

This release contains the following updates and new features.

Notable Changes

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

Issue ID	
JDK-8212084	Summary: G1: Support UseGCOverheadLimit Description: The G1 garbage collector now throws an <code>OutOfMemoryException</code> (OOM) when the garbage collection overhead is more than <code>GCTimeLimit</code> percent (default value 98) and the free Java heap is less than <code>GCHeapFreeLimit</code> percent (default value 2) for five consecutive garbage collections. This feature is enabled by default. It can be disabled using the <code>-XX:-UseGCOverheadLimit</code> option. The implementation mirrors the functionality already provided by the Parallel garbage collector. However there may be differences in the exact conditions for the OOM triggers as G1 calculates garbage collection overhead and free Java heap slightly differently.
JDK-8372351	Summary: Added WISEKey Global GB and GC Root CA Certificates Description: <code>wisekeyglobalrootgbca</code> and <code>wisekeyglobalrootgcc</code> root certificates have been added to the <code>cacerts</code> truststore.

Builds of Liberica JDK With CRaC

This release of Liberica JDK includes full CRaC support. CRaC support is available for Liberica JDK 17 and 21. For more information, see [Using CRaC with Java applications](#).

IANA TZ Data version

This release of Liberica JDK 21.0.12 comes with the 2026b version of the in-tree copy of the [IANA timezone database](#). The following are the key features of this version.

Briefly

British Columbia moved to permanent -07 on 2026-03-09.

Some more overflow bugs have been fixed in zic.

Changes to future timestamps

British Columbia's 2026-03-08 spring forward was its last foreseeable clock change, as it moved to permanent -07 thereafter. (Thanks to Arthur David Olson.) Although the change to permanent -07 legally took place on 2026-03-09, temporarily model the change to occur on 2026-11-01 at 02:00 instead. This works around a limitation in CLDR v48.2 (2026-03-17). This temporary hack is planned to be removed after CLDR is fixed.

Changes to code

- zic no longer mishandles a last transition to a new time type.
- zic no longer overflows a buffer when generating a TZ string like "PST-167:59:58PDT-167:59:59,M11.5.6/-167:59:59,M12.5.6/-167:59:59", which can occur with adversarial input. (Thanks to Naveed Khan.)
- zic no longer generates a longer TZif file than necessary when an earlier time zone abbreviation is a suffix of a later one. As a nice side effect, zic no longer overflows a buffer when given a long series of abbreviations, each a suffix of the next. (Buffer overflow reported by Arthur Chan.)
- zic no longer overflows an int when processing input like 'Zone Ouch 2147483648:00:00 - LMT'. The int overflow can lead to buffer overflow in adversarial cases. (Thanks to Naveed Khan.)
- zic now checks for signals more often.

For more information, see [JDK-8383175](#).

3. Known Issues

This release does not contain any known issues.

4. Fixed 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-2026-41254	7.5	client-libs	2d	network	low	none	none	unchanged	none	none	high
CVE-2026-46917	5.3	security-libs	javax.net.ssl	network	low	none	none	unchanged	none	none	low
CVE-2026-46968	5.9	security-libs	javax.net.ssl	network	high	none	none	unchanged	none	high	none
CVE-2026-47010	3.7	client-libs	javax.imageio	network	high	none	none	unchanged	none	low	none
CVE-2026-47013	5.3	javafx	graphics	network	low	none	none	unchanged	none	none	low
CVE-2026-47021	5.3	client-libs	2d	network	low	none	none	unchanged	none	none	low
CVE-2026-47027	5.3	security-libs	java.security	network	low	none	none	unchanged	none	none	low
CVE-2026-47030	3.1	javafx	web	network	high	none	required	unchanged	none	low	none
CVE-2026-47034	3.1	javafx	media	network	high	none	required	unchanged	none	low	none
CVE-2026-47035	3.1	javafx	media	network	high	none	required	unchanged	none	low	none
CVE-2026-47059	5.9	client-libs	2d	network	high	none	none	unchanged	none	none	low
CVE-2026-47063	7.5	security-libs	java.security	network	low	none	none	unchanged	none	high	none
CVE-2026-60147	6.5	security-libs	java.security	network	low	none	none	unchanged	low	low	none
CVE-2026-60164	3.1	javafx	web	network	high	none	required	unchanged	low	none	none
CVE-2026-60165	3.1	javafx	media	network	high	none	required	unchanged	none	low	none
CVE-2026-60166	3.1	javafx	media	network	high	none	required	unchanged	low	none	none

5. Resolved Issues

JDK issues

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

Issue ID	Summary
JDK-7184899	Test sun/java2d/X11SurfaceData/SharedMemoryPixmapsTest/SharedMemoryPixmapsTest.sh fail
JDK-8015444	java/awt/Focus/KeyStrokeTest.java sometimes fails
JDK-8064922	[macos] Test javax/swing/JTabbedPane/4624207/bug4624207.java fails
JDK-8068293	[TEST_BUG] Test closed/com/sun/java/swing/plaf/motif/InternalFrame/4150591/bug4150591.java fails with GTKLookAndFeel
JDK-8068310	[TEST_BUG] Test javax/swing/JColorChooser/Test4234761.java fails with GTKL&F
JDK-8068378	[TEST_BUG]The java/awt/Modal/PrintDialogsTest/PrintDialogsTest.java instruction need to update
JDK-8129418	JShell: better highlighting of errors in imports on demand
JDK-8144124	[macosx] The tabs can't be aligned when we pressing the key of 'R','B','L','C' or 'I'.

Issue ID	Summary
JDK-8183336	Better cleanup for jdk/test/java/lang/module/customfs/ModulesInCustomFileSystem.java
JDK-8203004	UnixMultiResolutionSplashTest.java fails on Ubuntu16.04
JDK-8212084	G1: Implement UseGCOverheadLimit
JDK-8213530	Test java/awt/Modal/ToFront/DialogToFrontModeless1Test.java fails on Linux
JDK-8221451	PIT: sun/java2d/X11SurfaceData/SharedMemoryPixmapsTest/SharedMemoryPixmapsTest.sh fails
JDK-8225787	java/awt/Window/GetScreenLocation/GetScreenLocationTest.java fails on Ubuntu
JDK-8255463	java/nio/channels/spi/SelectorProvider/inheritedChannel/InheritedChannelTest.java failed with ThreadTimeoutException
JDK-8274082	Wrong test name in jtreg run tag for java/awt/print/PrinterJob/SwingUIText.java
JDK-8277444	Data race between JvmtiClassFileReconstituter::copy_bytecodes and class linking
JDK-8278102	containers/docker/TestJcmd.java failed with "RuntimeException: Could not find specified process"
JDK-8286258	[Accessibility,macOS,VoiceOver] VoiceOver reads the spinner value wrong and sometime partially
JDK-8286865	vmTestbase/vm/mlvm/meth/stress/jni/nativeAndMH/Test.java fails with Out of space in CodeCache

Issue ID	Summary
JDK-8293484	AArch64: TestUseSHA512IntrinsicsOptionOnSupportedCPU.java fails on CPU with SHA512 feature support
JDK-8297191	[macos] Printing a page range with starting page > 1 results in missing pages
JDK-8298783	java/lang/ref/FinalizerHistogramTest.java failed with "RuntimeException: MyObject is not found in test output"
JDK-8298823	[macos] java/awt/Mouse/EnterExitEvents/DragWindowTest.java continues to fail with "No MouseReleased event on label!"
JDK-8299304	Test "java/awt/print/PrinterJob/PageDialogTest.java" fails on macOS 13 x64 because the Page Dialog blocks the Toolkit
JDK-8310645	CancelledResponse.java does not use HTTP/2 when testing the HttpClient
JDK-8311538	CDS InternSharedString test fails on huge pages host - cannot find shared string
JDK-8315588	JShell does not accept underscore from JEP 443 even with --enable-preview
JDK-8318365	Test runtime/cds/appcds/sharedStrings/InternSharedString.java fails after JDK-8311538
JDK-8318662	Refactor some jdk/java/net/httpclient/http2 tests to JUnit
JDK-8319326	GC: Make TestParallelRefProc use createTestJavaProcessBuilder
JDK-8319540	GC: Make TestSelectDefaultGC use createTestJavaProcessBuilder
JDK-8320677	Printer tests use invalid '@run main/manual=yesno

Issue ID	Summary
JDK-8321303	Intermittent open/test/jdk/java/awt/KeyboardFocusmanager/ConsumeNextMnemonicKeyTypedTest/ConsumeNextMnemonicKeyTypedTest.java failure on Linux
JDK-8321687	Test vmTestbase/nsk/jvmti/scenarios/contention/TC03/tc03t002/TestDescription.java failed: JVMTI_ERROR_THREAD_NOT_ALIVE
JDK-8322532	JShell : Unnamed variable issue
JDK-8323089	networkaddress.cache.ttl is not a system property
JDK-8323545	java/awt/GraphicsDevice/CheckDisplayModes.java fails with "exit code: 133"
JDK-8323672	Suppress unwanted autoconf added flags in CC and CXX
JDK-8323792	ThreadSnapshot::initialize can cause assert in Thread::check_for_dangling_thread_pointer (possibility of dangling Thread pointer)
JDK-8326458	Menu mnemonics don't toggle in Windows LAF when F10 is pressed
JDK-8328300	Convert PrintDialogsTest.java from Applet to main program
JDK-8329273	C2 SuperWord: Some basic MemorySegment IR tests
JDK-8330704	Clean up non-standard use of /** comments in some langtools tests
JDK-8330806	test/hotspot/jtreg/compiler/c1/TestLargeMonitorOffset.java fails on ARM32

Issue ID	Summary
JDK-8332495	java/util/logging/LoggingDeadlock2.java fails with AssertionError: Some tests failed
JDK-8333729	C2 SuperWord: remove some @requires usages in test/hotspot/jtreg/compiler/loopopts/superword
JDK-8334928	Test sun/security/ssl/SSLSocketImpl/ReuseAddr.java failed: java.net.BindException: Address already in use
JDK-8338103	Stabilize and open source a Swing OGL ButtonResizeTest
JDK-8338554	Fix inconsistencies in javadoc/doclet/testLinkOption/TestRedirectLinks.java
JDK-8338883	Show warning when CreateCoredumpOnCrash set, but core dump will not happen
JDK-8339233	Test javax/swing/JButton/SwingButtonResizeTestWithOpenGL.java#id failed: Button renderings are different after window resize
JDK-8339638	Update vmTestbase/nsk/jvmti/*Field*Watch tests to use virtual thread factory
JDK-8339879	Open some dialog awt tests
JDK-8339975	Open some dialog awt tests 2
JDK-8340140	Open some dialog awt tests 3
JDK-8340336	Open some checkbox awt tests
JDK-8340494	Open some dialog awt tests 4

Issue ID	Summary
JDK-8340818	Add a new jtreg test root to test the generated documentation
JDK-8340851	Open some TextArea awt tests
JDK-8340987	Open some TextArea awt tests 1
JDK-8341055	Open some TextArea awt tests 2
JDK-8341292	Open some TextArea awt tests 3
JDK-8341376	Open some TextArea awt tests 4
JDK-8341427	JFR: Adjust object sampler span handling
JDK-8341436	containers/docker/TestJcmdWithSideCar.java takes needlessly long to run
JDK-8341833	incomplete snippet from loaded files from command line is ignored
JDK-8342401	[TESTBUG] javax/swing/JSpinner/8223788/JSpinnerButtonFocusTest.java test fails in ubuntu 22.04 on SBR Hosts
JDK-8342836	Automatically determine that a test in the docs test root is requested
JDK-8344128	Regression: make help broken after JDK-8340818
JDK-8345618	javax/swing/text/Caret/8163124/CaretFloatingPointAPITest.java leaves Caret is not complete
JDK-8346154	[XWayland] Some tests fail intermittently in the CI, but not locally
JDK-8346683	Problem list automated tests that fail on macOS15

Issue ID	Summary
JDK-8347836	Disabled PopupMenu shows shortcuts on Mac
JDK-8349084	Update vectors used in several PQC benchmarks
JDK-8349192	jvmti/scenarios/contention/TC05/tc05t001 fails: ERROR: tc05t001.cpp, 281: (waitedThreadCpuTime - waitThreadCpuTime) < (EXPECTED_ACCURACY * 1000000)
JDK-8349533	Refactor validator tests shell files to java
JDK-8349699	XSL transform fails with certain UTF-8 characters on 1024 byte boundaries
JDK-8349959	Test CR6740048.java passes unexpectedly missing CR6740048.xsd
JDK-8350749	Upgrade JLine to 3.29.0
JDK-8350808	Small typos in JShell method SnippetEvent.toString()
JDK-8352020	[CompileFramework] enable compilation for VectorAPI
JDK-8352147	G1: TestEagerReclaimHumongousRegionsClearMarkBits test takes very long
JDK-8352149	Test java/awt/Frame/MultiScreenTest.java fails: Window list is empty
JDK-8352431	java/net/httpclient/EmptyAuthenticate.java uses "localhost"
JDK-8352685	Opensource JInternalFrame tests - series2
JDK-8352733	Improve RotFontBoundsTest test

Issue ID	Summary
JDK-8352877	Opensource Several Font related tests - Batch 1
JDK-8353124	java/lang/Thread/virtual/stress/Skynet.java#Z times out on macosx-x64-debug
JDK-8353488	Open some JComboBox bugs 3
JDK-8353552	Opensource Several Font related tests - Batch 3
JDK-8354163	Open source Swing tests Batch 1
JDK-8354695	Open source several swing tests batch7
JDK-8354900	javax/swing/AbstractButton/bug4133768.java failing on macosx-aarch64
JDK-8354910	Output by java.io.IO or System.console() corrupted for some non-ASCII characters
JDK-8355048	ProblemList TestGlyphVectorLayout.java on all platforms
JDK-8355179	Reinstate javax/swing/JScrollBar/4865918/bug4865918.java headful and macos run
JDK-8355332	Fix failing semi-manual test EDT issue
JDK-8355371	NegativeArraySizeException in print methods in IO or System.console() in JShell
JDK-8355443	[java.io] Use @requires tag instead of exiting based on File.separatorChar value
JDK-8356695	java/lang/StringBuilder/HugeCapacity.java failing with OOME

Issue ID	Summary
JDK-8356868	Not all cgroup parameters are made available
JDK-8357062	Update Public Suffix List to 823beb1
JDK-8357082	Stabilize and add debug logs to CopyAreaOOB.java
JDK-8357086	os::xxx functions returning memory size should return size_t
JDK-8357280	(bf) Remove @requires tags from java/nio/Buffer/LimitDirectMemory[NegativeTest].java
JDK-8357390	java/awt/Toolkit/ScreenInsetsTest/ScreenInsetsTest.java Test failing on Ubuntu 24.04 Vm Hosts used by Oracle's internal CI system
JDK-8358058	sun/java2d/OpenGL/DrawImageBg.java Test fails intermittently
JDK-8359364	java/net/URL/EarlyOrDelayedParsing test fails intermittently
JDK-8359472	JVM crashes when attaching a dynamic agent before JVMTI_PHASE_LIVE
JDK-8359978	Test javax/net/ssl/SSLSocket/Tls13PacketSize.java failed again with java.net.SocketException: An established connection was aborted by the software in your host machine
JDK-8360160	ubuntu-22-04 machine is failing client tests
JDK-8360395	sun/security/tools/keytool/i18n.java user country is current user location instead of the language
JDK-8360562	sun/security/tools/keytool/i18n.java add an ability to add comment for failures
JDK-8360702	runtime/Thread/AsyncExceptionTest.java timed out

Issue ID	Summary
JDK-8360882	Tests throw SkippedException when they should fail
JDK-8361106	[TEST] com/sun/net/httpserver/Test9.java fails with java.nio.file.FileSystemException
JDK-8361606	ConsumeNextMnemonicKeyTypedTest.java fails on Windows: character typed with VK_A: a
JDK-8361894	sun/security/krb5/config/native/TestDynamicStore.java ensure that the test is run with sudo
JDK-8362428	Update IANA Language Subtag Registry to Version 2025-08-25
JDK-8363943	ARM32: Represent Registers as values
JDK-8363949	Incorrect jtreg header in MonitorWithDeadObjectTest.java
JDK-8364190	JFR: RemoteRecordingStream withers don't work
JDK-8364315	Remove unused xml files from test/jaxp/javax/xml/jaxp/functional/javax/xml/transform/xmlfiles
JDK-8364756	JFR: Improve slow tests
JDK-8364927	Add @requires annotation to TestReclaimStringsLeaksMemory.java
JDK-8365379	SU3.applyInsets may produce wrong results
JDK-8365398	TEST_BUG: java/rmi/transport/checkLeaseInfoLeak/CheckLeaseLeak.java failing intermittently
JDK-8365423	[macos26] java/awt/MenuBar/8007006/bug8007006.java fails on macOS 26

Issue ID	Summary
JDK-8365424	[macos26] java/awt/Frame/DisposeTest.java fails on macOS 26
JDK-8365623	test/jdk/sun/security/pkcs11/tls/ tests skipped without skip exception
JDK-8365625	Can't change accelerator colors in Windows L&F
JDK-8365776	Convert JShell tests to use JUnit instead of TestNG
JDK-8365861	test/jdk/sun/security/pkcs11/Provider/ tests skipped without SkippedException
JDK-8365863	/test/jdk/sun/security/pkcs11/Cipher tests skip without SkippedException
JDK-8365893	test/jdk/java/lang/Thread/virtual/JfrEvents.java failing intermittently
JDK-8366031	Mark com/sun/nio/sctp/SctpChannel/CloseDescriptors.java as intermittent
JDK-8366182	Some PKCS11Tests are being skipped when they shouldn't
JDK-8366369	Add @requires linux for GTK L&F tests
JDK-8366852	java/awt/Choice/ChoiceMouseWheelTest/ChoiceMouseWheelTest.java test is failing
JDK-8367096	jdk/open/test/jdk/sun/security/pkcs11/ rsa, ec, config, secmod and sslecc tests are skipping but showing as pass
JDK-8367485	os::physical_memory is broken in 32-bit JVMs when running on 64-bit OSes

Issue ID	Summary
JDK-8367784	java/awt/Focus/InitialFocusTest/InitialFocusTest1.java failed with Wrong focus owner
JDK-8368029	Several tests in httpserver/simpleserver should throw SkipException
JDK-8368041	Enhance TLS certificate handling
JDK-8368181	ProblemList java/awt/Dialog/ModalExcludedTest/ModalExcludedTest.java
JDK-8368335	Refactor the rest of Locale TestNG based tests to JUnit
JDK-8368498	Use JUnit instead of TestNG for jdk_text tests
JDK-8368524	Tests are skipped and shown as passed in test/jdk/sun/security/pkcs11/Cipher/KeyWrap
JDK-8368551	Core dump warning may be confusing
JDK-8368625	com/sun/net/httpserver/ServerStopTerminationTest.java fails intermittently
JDK-8368670	Deadlock in JFR on event register + class load
JDK-8368754	runtime/cds/appcds/SignedJar.java log regex is too strict
JDK-8368866	compiler/codecache/stress/UnexpectedDeoptimizationTest.java intermittent timed out
JDK-8368885	NMT CommandLine tests can check for error better
JDK-8368892	Make JEditorPane/TestBrowserBGColor.java headless
JDK-8369251	Opensource few tests

Issue ID	Summary
JDK-8369335	Two sun/java2d/OpenGL tests fail on Windows after JDK-8358058
JDK-8369516	Delete duplicate imaging test
JDK-8369561	sun/java2d/OpenGL/DrawBitmaskImage.java#id0: Incorrect color for first pixel (actual=ff000000)
JDK-8369683	Exclude runtime/Monitor/MonitorWithDeadObjectTest.java#DumpThreadsBeforeDetach on Alpine Linux debug
JDK-8369851	Remove darcy author tags from langtools tests
JDK-8369950	TLS connection to IPv6 address fails with BCJSSE due to IllegalArgumentException
JDK-8370378	Some compiler tests inadvertently exclude particular platforms
JDK-8370489	Some compiler tests miss the @key randomness
JDK-8370492	[Linux] Update cpu shares to cpu.weight mapping function
JDK-8370511	test/jdk/javax/swing/JSlider/bug4382876.java does not release previously pressed keys
JDK-8370732	Use WhiteBox.getWhiteBox().fullGC() to provoking gc for nsk/jvmti tests
JDK-8370905	Update vm.defmeth tests to use virtual threads
JDK-8370942	test/jdk/java/security/Provider/NewInstance.java and /test/jdk/java/security/cert/CertStore/NoLDAP.java may skip without notifying

Issue ID	Summary
JDK-8371262	sun/security/pkcs11/Cipher/KeyWrap tests may silently skip
JDK-8371349	Update NSS library to 3.117
JDK-8371364	Refactor javax/swing/JFileChooser/FileSizeCheck.java to use Util.findComponent()
JDK-8371365	Update javax/swing/JFileChooser/bug4759934.java to use Util.findComponent()
JDK-8371366	java/net/httpclient/whitebox/RawChannelTestDriver.java fails intermittently in jtreg timeout
JDK-8371383	Test sun/security/tools/jarsigner/DefaultOptions.java failed due to CertificateNotYetValidException
JDK-8371503	RETAIN_IMAGE_AFTER_TEST do not work for some tests
JDK-8371895	Lower GCTimeLimit in TestUseGCOverheadLimit.java
JDK-8371967	Add Visual Studio 2026 to build toolchain for Windows
JDK-8372120	Add missing sound keyword to MIDI tests
JDK-8372272	Hotspot shared lib loading - add load attempts to Events::log
JDK-8372351	Add 2 WISEKey roots
JDK-8372609	Bug4944439 does not enforce locale correctly
JDK-8372661	Add a null-safe static factory method to "jdk.test.lib.net.SimpleSSLContext"
JDK-8373101	JdkClient and JdkServer test classes ignore namedGroups field

Issue ID	Summary
JDK-8373239	Test java/awt/print/PrinterJob/PageRanges.java fails with incorrect selection of printed pages
JDK-8373275	Improve DTLS handshaking
JDK-8373537	Migrate "test/jdk/com/sun/net/httpserver/" to null-safe "SimpleSSLContext" methods
JDK-8373593	Support latest VS2026 MSC_VER in abstract_vm_version.cpp
JDK-8373623	Refactor Serialization tests for Records to JUnit
JDK-8373632	Some sound tests failing in CI due to lack of sound key
JDK-8373650	Test "javax/swing/JMenuItem/6458123/ManualBug6458123.java" fails because the check icons are not aligned properly as expected
JDK-8373690	Unexpected Keystore message using jdk.crypto.disabledAlgorithms
JDK-8373704	Improve "SocketException: Protocol family unavailable" message
JDK-8373716	Refactor further java/util tests from TestNG to JUnit
JDK-8373793	TestDynamicStore.java '/manual' disables use of '/timeout'
JDK-8373796	Refactor java/net/httpclient/ThrowingPublishers*.java tests to use JUnit5
JDK-8373807	test/jdk/java/net/httpclient/websocket/DummyWebSocketServer.java a getURI() uses "localhost"
JDK-8373832	Test java/lang/invoke/TestVHInvokerCaching.java tests nothing

Issue ID	Summary
JDK-8373847	Test javax/swing/JMenuItem/MenuItemTest/bug6197830.java failed because The test case automatically fails when clicking any items in the Nothing menu in all four windows (Left-to-right)-Menu Item Test and (Right-to-left)-Menu Item Test
JDK-8373866	Refactor java/net/httpclient/ThrowingSubscribers*.java tests to use JUnit5
JDK-8373869	Refactor java/net/httpclient/ThrowingPushPromises*.java tests to use JUnit5
JDK-8373928	4 Dangling pointer defect groups in java.c
JDK-8373931	Test javax/sound/sampled/Clip/AutoCloseTimeCheck.java timed out
JDK-8374058	Enhance JPEG handling
JDK-8374304	MultiResolutionSplashTest.java fails in CI: "Image with wrong resolution is used for splash screen!"
JDK-8374322	TestMemoryWithSubgroups.java fails Permission denied
JDK-8374434	Several JShell tests report JUnit discovery warnings
JDK-8374506	Incorrect positioning of arrow icon in parent JMenu in Windows L&F
JDK-8374711	Hotspot runtime/CommandLine/OptionsValidation/TestOptionsWithRanges fails without printing the option name
JDK-8374769	PPC: MASM::pop_cont_fastpath() should reset _cont_fastpath if SP == _cont_fastpath
JDK-8374888	Implement internal test cache to help UserIterCount test performance

Issue ID	Summary
JDK-8374998	Failing os::write - remove bad file
JDK-8375065	Update LCMS to 2.18
JDK-8375080	The tools/jpackage/windows/Win8365790Test.java may fail with ClassNotFoundException: jtreg.SkippedException
JDK-8375231	Refactor util/ServiceLoader tests to use JUnit
JDK-8375232	Refactor util/StringJoiner tests to use JUnit
JDK-8375233	Refactor util/Vector tests to use JUnit
JDK-8375742	Test java/lang/invoke/MethodHandleProxies/Driver.java does not run Unnamed.java
JDK-8376031	HttpsURLConnection.getServerCertificates() throws "java.lang.IllegalStateException: connection not yet open" for the HEAD method
JDK-8376151	Test javax/swing/JFileChooser/4966171/bug4966171.java is failing with OOME
JDK-8376152	Test javax/sound/sampled/Clip/bug5070081.java timed out then completed
JDK-8376233	Clean up code in Desktop native peer
JDK-8376889	Enhance JfrRecorder::on_create_vm_3() assert output
JDK-8377158	Enhance XBM image support
JDK-8377167	javax/imageio/ReadAbortTest.java throw NPE when x11 unavailable

Issue ID	Summary
JDK-8377347	jdk/jfr/event/gc/detailed/TestZAllocationStallEvent.java intermittent OOME
JDK-8377498	Improve HttpServer handling
JDK-8377602	Create automated test for PageRange
JDK-8377727	Ghost caret and focus appear in non-editable text fields
JDK-8377833	Enhance Jar file processing
JDK-8377910	Minor cleanup of java/io/FileDescriptor/Sharing.java
JDK-8377944	LowMemoryTest2.java#id1 intermittent fails OOME: Metaspace
JDK-8378113	Add sun/java2d/OpenGL/ScaleParamsOOB.java to the ProblemList.txt file
JDK-8378201	[OGL] glXMakeContextCurrent() drops the buffers of the unbound drawable
JDK-8378353	[PPC64] StringCoding.countPositives causes errors when the length is not a proper 32 bit int
JDK-8378417	Printing All pages results in NPE for 1.1 PrintJob
JDK-8378561	Mark gc/shenandoah/compiler/TestLinkToNativeRBP.java as /native
JDK-8378687	Improve delegation of HttpURLConnection
JDK-8378775	Bump update version for OpenJDK: jdk-21.0.12
JDK-8378802	[21u] backport changes to TKit.java by JDK-8352419

Issue ID	Summary
JDK-8378810	Enable missing FFM test via jtreg requires for RISC-V
JDK-8378878	Refactor java/nio/channels/AsynchronousSocketChannel test to use JUnit
JDK-8379464	Enable missing stack walking test via jtreg requires for RISC-V
JDK-8380011	Path-to-gcroots search should not trigger stack overflows
JDK-8380222	Refactor test/jdk/java/lang/Character TestNG tests to JUnit
JDK-8380316	Test runtime/os/AvailableProcessors.java fails Invalid argument
JDK-8380428	ProblemList containers/docker/TestJcmdWithSideCar.java on linux-all
JDK-8380474	Crash SEGV in ThreadIdTable::lazy_initialize after JDK-8323792
JDK-8380565	PPC64: deoptimization stub should save vector registers
JDK-8380672	Improve certification checking
JDK-8380947	Add pull request template
JDK-8381039	Enhance AWT ImagingLib
JDK-8381049	Enhance Jar handling
JDK-8381205	[GHA] Upgrade Node.js 20 to 24
JDK-8381315	compiler/vectorapi/TestVectorReallocation.java fails with -XX:UseAVX=1 after JDK-8380565
JDK-8381519	Enhance Der Value Handling

Issue ID	Summary
JDK-8381796	Enhance Certificate parsing
JDK-8382018	test/jdk/java/nio/file/spi/SetDefaultProvider.java leaves a directory in /tmp
JDK-8382047	Update Libpng to 1.6.57
JDK-8382242	JFR: Metadata reconstruction invalidates ConstantMap for java.lang.String
JDK-8382419	Add missed @key randomness after JDK-8370489
JDK-8383175	(tz) Update Timezone Data to 2026b
JDK-8383185	[21u] Backport of JDK-8382925 causes test failure in SetDefaultProvider
JDK-8383354	Update LCMS to 2.19.1
JDK-8383473	Follow on from tzdata2026b time change to include temporary hack BC time change
JDK-8383601	RISC-V: ShenandoahBarrierSetAssembler::load_reference_barrier calls "weak" on "phantom" path
JDK-8383630	Fix iteration in tests doing class redefinition
JDK-8384158	[GHA] Downgrade Windows GHA runners to windows-2022 temporarily
JDK-8384486	NTLM tests fail on Windows 11 and Windows Server 2025
JDK-8384495	Update Libpng to 1.6.58

Issue ID	Summary
JDK-8384540	[25u, 21u, 17u] Update GHA JDKs after Apr/26 updates
JDK-8384815	SelectOneKeyOutOfMany and PreferredKey fail after expired test certificate
JDK-8384902	Update GIFlib to 6.1.3
JDK-8385390	Update FreeType to 2.14.3
JDK-8385490	Update HarfBuzz to 14.2.0
JDK-8386551	Windows build broken because of MSys2/Make update

JFX issues

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

Issue ID	Summary
JDK-8324233	Update JPEG Image Decoding Software to 9f
JDK-8366217	Update GStreamer to 1.26.5
JDK-8373527	Improve Graphics playback
JDK-8375084	Update libxslt to 1.1.45
JDK-8378226	Animated GIFs do not animate after WebKit 620.1 update
JDK-8378277	Improve Editor selection

Issue ID	Summary
JDK-8379206	4 Null pointer dereference defect groups in 4 glib files
JDK-8379207	Improve audio conversion
JDK-8379209	Uninitialised variable in pathApplierFunctionFast of coretext.c
JDK-8379211	Uninitialised memory in Java_com_sun_javafx_font_freetype_OSFreeType_FT_1Outline_1De compose
JDK-8379257	Update JPEG Image Decoding Software to 10
JDK-8379336	Update libxml2 to 2.15.2
JDK-8381447	Remove G_DISABLE_CHECKS compiler flag on Windows to align GLib/GStreamer compilation with macOS/Linux
JDK-8381517	GlassViewDelegate::convertNSStringToJString can return uninitialized value
JDK-8381982	Add pull request template
JDK-8382869	Change JavaFX release version to 21.0.12 in jfx21u
JDK-8383092	Enhance WebView Resource Loading
JDK-8383129	Better Handling of MP4 Files
JDK-8383143	Enhance Playlist Loading

6. Updates to Third Party Libraries

This is the list of changes in the third party libraries.

Library	Full name	New Version	Module	JBS number
FreeType	FreeType	2.14.3	java.desktop	JDK-8385390
GIFlib	GIFlib	6.1.3	java.desktop	JDK-8384902
GStreamer	GStreamer	1.26.5	javafx.media	JDK-8366217
HarfBuzz	HarfBuzz	14.2.0	java.desktop	JDK-8385490
JLine	JLine	3.29.0	jdk.internal.le	JDK-8350749
LCMS	LittleCMS	2.19.1	java.desktop	JDK-8383354
libjpeg	JPEG Image Decoding Software	10	javafx.web	JDK-8379257
Libpng	Libpng	1.6.58	java.awt	JDK-8384495
libxml2	libxml2	2.15.2	javafx.web	JDK-8379336
libxslt	libxslt	1.1.45	javafx.web	JDK-8375084

7. Upgrading to the New Version

To keep your Liberica JDK 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 JDK Installation Guide](#).



Liberica JDK 21.0.12+10

Release Notes

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