



## Azul Zulu builds of OpenJDK

July 2022 Quarterly Update

Release Notes

Revision 1.7

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# Revision History

Revision	Date	Description
0.1	July 19, 2022	Initial version of the document.
0.2	July 19, 2022	Corrections in affected versions for JDK issues.
0.3	July 19, 2022	Additional changes in affected versions for JDK issues.
1.0	July 19, 2022	Added information about the CVEs fixed in this release.
1.1	July 19, 2022	Added CVE-2022-25647.
1.2	July 19, 2022	Small typo fix in CVE Note 1.
1.3	July 20, 2022	Added note EOL (End Of Life) of Java 7.
1.4	July 20, 2022	CVE-2022-25647 Component description updated.
1.5	July 25, 2022	Added JDK-8285445.
1.6	July 28, 2022	Small typo fixes.
1.7	July 29, 2022	Properly resolve zulu/jfx variables in license changes.

# Release Details

Release Date: July 19, 2022

This release is a quarterly update release for Azul Zulu Builds of OpenJDK version 18, 17, 15, 13, 11, 8, 7, and 6. The following table lists detailed information on the Azul Zulu versions released with the current update.

Azul Zulu Version*	Update Type**	JDK Version	Based on		JavaFX Version
			Azul Zulu Version	JDK Version	
18.32 (CA) 18.32 (SA)	PSU	18.0.2+9	18.30	18.0.1+10	18.0.2+101
17.35 (SA)	CPU	17.0.3.0.101+2	17.34	17.0.3+7	18.0.1.0.101+100
17.36 (CA) 17.36 (SA)	PSU	17.0.4+8	17.35	17.0.3.0.101+2	18.0.2+101
15.41 (SA)	CPU	15.0.7.0.101+2	15.40	15.0.7+4	18.0.1.0.101+100
15.42 (CA) 15.42 (SA)	PSU	15.0.8+4	15.41	15.0.7.0.101+2	18.0.2+101
13.49 (SA)	CPU	13.0.11.0.101+2	13.48	13.0.11+4	18.0.1.0.101+100
13.50 (CA) 13.50 (SA)	PSU	13.0.12+4	13.49	13.0.11.0.101+2	18.0.2+101
11.57 (SA)	CPU	11.0.15.0.101+3	11.56	11.0.15+10	18.0.1.0.101+100
11.58 (CA) 11.58 (SA)	PSU	11.0.16+8	11.57	11.0.15.0.101+3	18.0.2+101
8.63 (SA)	CPU	8u341-b03	8.62	8u332-b09	8u341-b02
8.64 (CA) 8.64 (SA)	PSU	8u342-b07	8.63	8u341-b03	N/A
7.55 (SA)	CPU	7u351-b02	7.54	7u342-b01	N/A
7.56 (CA) 7.56 (SA)	PSU	7u352-b01	7.55	7u351-b02	N/A

6.49 (SA)	CPU	6b149	6.47	6b147	N/A
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\* Azul provides three types of distribution packages for each Java version:

- **SA** distributions are tested, certified, and commercially supported Azul Zulu builds of OpenJDK. Azul ensures that the software that uses the Accessible APIs of the product does not have to include specific licenses and that such use does not contaminate the code or intellectual property of such software with any license requirements.
- **NV** are tested, certified, and commercially supported Azul Zulu builds of OpenJDK.
- **CA** are Azul Zulu builds of OpenJDK that are free to download and use.

\*\* Update type:

- **CPU** (Critical Patch Updates) contain fixes to security vulnerabilities and critical bug fixes. Azul Zulu CPU releases are generally based on prior-cycle PSU releases, with only security fixes applied. They provide a low-risk vehicle for the potentially urgent deployment of security fixes when issues of sufficient severity arise. CPU releases are available in SA and NV distributions.
- **PSU** (Patch Set Updates) incorporates all fixes in the corresponding CPU, as well as additional non-security bug fixes. Azul Zulu PSU releases incorporate both security fixes and other changes that align the release contents with the associated OpenJDK project quarterly release. PSU releases are available in SA, NV, and CA distributions.

# Supported Platforms

This section provides information about the operating systems that are supported in this update release of Azul Zulu.

Operating System	Azul Zulu Version							
	6	7	8	11	13	15	17	18
<b>Windows (x86 32/64-bit)</b>								
Windows Server 2022	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Server 2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Server 2016	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Server 2012 R2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows 11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows 8.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Windows (ARM 64-bit)</b>								
Windows 11	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Yes
Windows 10	n/a	n/a	n/a	n/a	n/a	n/a	Yes	n/a
<b>Linux (x86 32/64-bit)</b>								
RHEL 9.x	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RHEL 8.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RHEL 7.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SLES 15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SLES 12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CentOS 8.x [1]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CentOS Stream	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ubuntu 22.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Ubuntu 20.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ubuntu 18.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debian 11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debian 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debian 9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wind River 8.x	n/a	Yes	Yes	n/a	n/a	n/a	n/a	n/a
CoreOS	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alpine Linux 3.11 or later	n/a	n/a	Yes	Yes	Yes	Yes	Yes	Yes
<b>Linux (ARM 64-bit)</b>								
Ubuntu 20.04	n/a	n/a	Yes	Yes	Yes	Yes	Yes	Yes
Ubuntu 18.04	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
Alpine Linux 3.11 or later	n/a	n/a	Yes	Yes	n/a	n/a	Yes	Yes
Linux with kernel 3.10.x and glibc 2.23	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
<b>Linux (ARM 32-bit Hard-Float)</b>								
Ubuntu 18.04 [2]	n/a	n/a	Yes	Yes	n/a	n/a	Yes	n/a
Raspbian 10 Buster [2]	n/a	n/a	Yes	Yes	n/a	n/a	Yes	n/a
Raspbian 9 Stretch [2]	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
Linux with kernel 3.10.x and glibc 2.9 [2]	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
<b>Linux (ARM 32-bit Soft-Float) [3]</b>								
Linux with kernel 2.6.34 and glibc 2.5 [4]	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
Debian 7 Wheezy [5]	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
Linux with kernel 3.10.x and glibc 2.9 [5]	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a
<b>Linux (MIPS 32-bit) [6]</b>								

Linux with kernel 4.9.59 and glibc 2.9 [7]	n/a	n/a	Yes	n/a	n/a	n/a	n/a	n/a
Linux (PowerPC 64-bit Big Endian)								
Linux with kernel 3.8.13 and glibc 2.22 [8]	n/a	n/a	Yes	n/a	n/a	n/a	n/a	n/a
Linux (PowerPC 32-bit Hard-float and SPE)								
Linux with kernel 3.12.37 and glibc 2.20 [9]	n/a	n/a	Yes	n/a	n/a	n/a	n/a	n/a
QNX (ARMv7 32-bit Hard-Float ABI)								
QNX 7.0	n/a	n/a	Yes	n/a	n/a	n/a	n/a	n/a
MacOS (x86 64-bit)								
macOS 12	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
macOS 11	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MacOS (Apple Silicon)								
macOS 12	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
macOS 11	n/a	n/a	Yes	Yes	Yes	Yes	Yes	Yes
Solaris (x86 and Sparc)								
Solaris 11	n/a	Yes	Yes	Yes	n/a	n/a	n/a	n/a
Solaris 10	n/a	Yes	Yes	n/a	n/a	n/a	n/a	n/a

1. The Azul Zulu builds for CentOS 8 will be discontinued in July, 2022 due to Red Hat terminating CentOS development and shifting focus to CentOS Stream.
2. Bundles with the C1 compiler were tested on ARMv6/ARMv7/ARMv8 hardware. Bundles with both C1 and C2 compilers were tested on ARMv7/ARMv8 hardware.
3. Bundles with the C1 compiler use FPU, if it is present and available, to speed up floating point operations. Bundles with both C1 and C2 compilers require FPU.
4. Bundles with the C1 compiler. Tested on ARMv5 hardware.
5. Bundles with the C1 compiler were tested on ARMv6 and ARMv7 hardware. Bundles with both C1 and C2 compilers were tested on ARMv7 hardware.



6. MIPS32r2 ISA, Big Endian, FPU in 32-bit mode or equivalent emulation.
7. Linux soft-float O32 MIPS ABI
8. Bundles for this platform were tested on QorIQ® T4240-RDB.
9. Hard-Float EABI bundles were tested on QorIQ® T1024RDB. SPE ABI bundles were tested on NXP® P2020RDB.

## Highlights

- Symbol information was added to the Azul Zulu APK binaries to simplify the use of Zulu with various tools.
- Testing cycles are reduced to target the end of life of the RHEL 5 platform.
- We stop providing Solaris builds for Core customers unless explicitly requested.

## Notice of Upcoming Changes

Per the Azul Support Roadmap and the EOL (End Of Life) of Java 7, **the July 2022 Update release is the final update that includes Java 7 updates with Azul Platform Core**. To continue receiving updates to Java 7 after this release, you need to have Extended Production Support for Java 7. Please email us at [support@azul.com](mailto:support@azul.com) if this is something you'd like to arrange.

**In October 2022 we plan to reduce the testing cycles for the following environments targeting their end of life.** But if you are still using these, we can provide Azul Platform Core versions for you and can help you if issues would arise!

- Ubuntu 16.04
- Debian 9
- CentOS 6, 7, and 8
- SLES 11
- RHEL 6

## Known Issues

- OpenJFX for Zulu8 is not supported on Red Hat 7 Universal Base Image.
- Next algorithms are not supported by default by Zulu11.41 on Solaris 11.4:

`SSL_RSA_EXPORT_WITH_DES40_CBC_SHA` and

`SSL_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA`

Please use the following workaround:

1. Open the `$(JAVA_HOME)/jre/lib/security/java.security` file.
2. Find the next entry: `security.provider.2=SunPKCS11`  
`{java.home}/conf/security/sunpkcs11-solaris.cfg`  
`security.provider.3=SUN`
3. Replace the value of this second entry with  
`security.provider.2=sun.security.provider.Sun`
4. Note: it is the same as in the next line and this is correct:  
`security.provider.3=sun.security.provider.Sun`

## IANA Time Zone Database version

This release of Azul Zulu comes with IANA Time Zone Database version 2022a.

## Fixed Issues

This section covers all issues that were fixed in this release.

### Fixed Common Vulnerabilities and Exposures

This section summarizes Common Vulnerabilities and Exposures (CVE) fixed in this release.

CVE #	Component	Protocol	Remote Exploit w/o Auth.	Base Score	Attack Vector	Attack Complex	Privileges Req'd	User Interact	Scope	Confidentiality	Integrity	Availability	Azul Zulu Versions Affected	Notes
<a href="#">CVE-2022-34169</a>	JAXP (Xalan-J)	Multiple	Yes	7.5	Network	Low	None	None	Unchanged	None	High	None	18, 17, 15, 13, 11, 8, 7, 6	Note 1
<a href="#">CVE-2022-21541</a>	Hotspot	Multiple	Yes	5.9	Network	High	None	None	Unchanged	None	High	None	18, 17, 15, 13, 11, 8, 7	Note 1
<a href="#">CVE-2022-21540</a>	Hotspot	Multiple	Yes	5.3	Network	Low	None	None	Unchanged	Low	None	None	18, 17, 15, 13, 11, 8, 7, 6	Note 1
<a href="#">CVE-2022-21549</a>	Libraries	Multiple	Yes	5.3	Network	Low	None	None	Unchanged	None	Low	None	17	Note 1
<a href="#">CVE-2022-25647</a>	GraalVM Native Image (Gson)	None	No	6.2	Local	Low	None	None	Unchanged	None	None	High	None	

#### Notes:

ID	Notes
1	This vulnerability applies to Java deployments that load and run untrusted code (e.g., code that comes from the internet) and relies on the Java sandbox for security. This vulnerability can also be exploited by using APIs in the specified Component, e.g., through a web service which supplies data to the APIs.

## Non-CVE Security Fixes

The following table summarizes non-CVE security fixes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8286324</a>	18, 17, 15, 13, 11, 8	Upgrade libxslt	CPU
<a href="#">JDK-8286317</a>	18, 17, 15, 13, 11, 8	Upgrade libxml2	CPU
<a href="#">JDK-8285691</a>	18, 17, 15, 13, 11, 8	Additional fix for JDK-8282121	CPU
<a href="#">JDK-8285686</a>	18, 17, 15, 13, 11, 8, 7, 6	Update FreeType to 2.12.0	CPU
<a href="#">JDK-8284370</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve zlib usage	CPU
<a href="#">JDK-8283389</a>	18, 17, 15, 13, 11, 8	Update XML processing	CPU
<a href="#">JDK-8283350</a>	18, 17, 15, 13, 11, 8, 7, 6	(tz) Update Timezone Data to 2022a	CPU
<a href="#">JDK-8283190</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve MIDI processing	CPU
<a href="#">JDK-8282121</a>	18, 17, 15, 13, 11, 8	Improve WebKit referencing	CPU
<a href="#">JDK-8281159</a>	18, 17, 15, 13, 11, 8	Better JavaScript support	CPU
<a href="#">JDK-8277608</a>	18, 17, 15, 13, 11, 8, 7, 6	Address IP Addressing	CPU
<a href="#">JDK-8272249</a>	18, 17, 15, 13, 11, 8	Better properties of loaded Properties	CPU
<a href="#">JDK-8272243</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve DER parsing	CPU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8282676</a>	18	Improve subject handling	PSU

## OpenJDK Bug Fixes

The following table describes the OpenJDK changes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8283350</a>	18, 17, 15, 13, 11, 8, 7, 6	(tz) Update Timezone Data to 2022a	CPU
<a href="#">JDK-8272243</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve DER parsing	CPU
<a href="#">JDK-8281866</a>	18, 17, 15, 13, 11, 8, 7	Enhance MethodHandle invocations	CPU
<a href="#">JDK-8281859</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve class compilation	CPU
<a href="#">JDK-8284866</a>	18, 17	Add test to JDK-8273056	CPU
<a href="#">JDK-8285407</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve Xalan supports	CPU
<a href="#">JDK-8285727</a>	17, 15, 13, 11, 8, 7, 6	[11u, 17u] Unify fix for JDK-8284920 with version from head	CPU
<a href="#">JDK-8284370</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve zlib usage	CPU
<a href="#">JDK-8273056</a>	17	java.util.random does not correctly sample exponential or Gaussian distributions	CPU
<a href="#">JDK-8277608</a>	18, 17, 15, 13, 11, 8, 7, 6	Address IP Addressing	CPU
<a href="#">JDK-8283875</a>	17	More random exponentials	CPU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8087283</a>	8, 7, 6	Add support for the XML Signature here() function to the JDK XPath implementation	CPU
<a href="#">JDK-8283190</a>	18, 17, 15, 13, 11, 8, 7, 6	Improve MIDI processing	CPU
<a href="#">JDK-8209771</a>	8	jdk.test.lib.Util::runAndCheckException error	CPU
<a href="#">JDK-8285726</a>	17, 15, 13, 11, 7	[11u, 17u] Unify fix for JDK-8284548 with version from head	CPU
<a href="#">JDK-8272249</a>	18, 17, 15, 13, 11, 8	Better properties of loaded Properties	CPU
<a href="#">JDK-8286029</a>	18, 17	Add classpath exemption to globals_vectorApiSupport_***.S.inc	PSU
<a href="#">JDK-8286013</a>	18, 17, 11	Incorrect test configurations for compiler/stable/TestStableShort.java	PSU
<a href="#">JDK-8285956</a>	18, 17	(fs) Excessive default poll interval in PollingWatchService	PSU
<a href="#">JDK-8285921</a>	18, 17	serviceability/cmd/jvmti/AttachFailed/AttachReturnError.java fails on Alpine	PSU
<a href="#">JDK-8285828</a>	18, 17, 11	runtime/execstack/TestCheckJDK.java fails with zipped debug symbols	PSU
<a href="#">JDK-8285728</a>	17	Alpine Linux build fails with busybox tar	PSU
<a href="#">JDK-8285720</a>	11	test/jdk/java/nio/file/Files/probeContentType/Basic.java fails to compile after backport of 8273655	PSU
<a href="#">JDK-8285591</a>	13, 11, 8, 7	[11] add signum checks in DSA.java engineVerify	PSU
<a href="#">JDK-8285579</a>	7	Bump update version of OpenJDK: 7u351	PSU
<a href="#">JDK-8285523</a>	18, 17, 15, 11, 8, 7	Improve test java/io/FileOutputStream/OpenNUL.java	PSU
<a href="#">JDK-8285517</a>	18	System.getenv() returns unexpected value if environment variable has non ASCII character	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8285515</a>	18, 17, 11	(dc) DatagramChannel.disconnect fails with "Invalid argument" on macOS 12.4	PSU
<a href="#">JDK-8285454</a>	18	Update the JBS version for respin of April CPU22_04	PSU
<a href="#">JDK-8285397</a>	17, 11	JNI exception pending in CUPSfuncs.c:250	PSU
<a href="#">JDK-8285395</a>	11	[JVMCI] [11u] Partial backport of JDK-8220623: InstalledCode	PSU
<a href="#">JDK-8285394</a>	18, 17	Compiler blackholes can be eliminated due to stale ciMethod::intrinsic_id()	PSU
<a href="#">JDK-8285391</a>	18	Update the release version for respin April CPU22_04 for release jdk18.0.1.1	PSU
<a href="#">JDK-8285342</a>	17	Zero build failure with clang due to values not handled in switch	PSU
<a href="#">JDK-8284992</a>	18, 17	Fix misleading Vector API doc for LSHR operator	PSU
<a href="#">JDK-8284884</a>	17	Replace polling with waiting in javax/swing/text/html/parser/Parser/8078268/bug8078268.java	PSU
<a href="#">JDK-8284848</a>	18, 17	C2: Compiler blackhole arguments should be treated as globally escaping	PSU
<a href="#">JDK-8284808</a>	18	change milestone to fcs for releases: jdk-11.0.16, jdk-17.0.4, jdk-18.0.2	PSU
<a href="#">JDK-8284772</a>	8	8u GHA: Use GCC Major Version Dependencies Only	PSU
<a href="#">JDK-8284758</a>	17	[linux] improve print_container_info	PSU
<a href="#">JDK-8284756</a>	11	[11u] Remove unused isUseContainerSupport in CgroupV1Subsystem	PSU
<a href="#">JDK-8284754</a>	17	print more interesting env variables in hs_err and VM.info	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8284661</a>	17	Reproducible assembly builds without relative linking	PSU
<a href="#">JDK-8284622</a>	18, 17, 11	Update versions of some Github Actions used in JDK workflow	PSU
<a href="#">JDK-8284620</a>	18, 17, 11, 8	CodeBuffer may leak _overflow_arena	PSU
<a href="#">JDK-8284604</a>	11	[11u] Update Boot JDK used in GHA to 11.0.14.1	PSU
<a href="#">JDK-8284603</a>	17	[17u] Update Boot JDK used in GHA to 17.0.2	PSU
<a href="#">JDK-8284549</a>	18, 17, 11	JFR: FieldTable leaks FieldInfoTable member	PSU
<a href="#">JDK-8284532</a>	18, 17	Memory leak in BitSet::BitMapFragmentTable in JFR leak profiler	PSU
<a href="#">JDK-8284507</a>	18, 17, 11	GHA: Only check test results if testing was not skipped	PSU
<a href="#">JDK-8284458</a>	18, 17, 11	CodeHeapState::aggregate() leaks blob_name	PSU
<a href="#">JDK-8284437</a>	17	Building from different users/workspace is not always deterministic	PSU
<a href="#">JDK-8284389</a>	18, 17, 11	Improve stability of GHA Pre-submit testing by caching cygwin installer	PSU
<a href="#">JDK-8284369</a>	18, 17, 11	TestFailedAllocationBadGraph fails with -XX:TieredStopAtLevel < 4	PSU
<a href="#">JDK-8284102</a>	11	[TESTBUG] [11u] Retroactively add regression test for JDK-8272124	PSU
<a href="#">JDK-8284094</a>	18, 17, 11	Memory leak in invoker_completeInvokeRequest()	PSU
<a href="#">JDK-8284033</a>	18, 17, 11	Leak XVisualInfo in getAllConfigs in awt_GraphicsEnv.c	PSU
<a href="#">JDK-8284023</a>	18, 17	java.sun.awt.X11GraphicsDevice.getDoubleBufferVisuals() leaks XdbeScreenVisualInfo	PSU
<a href="#">JDK-8284012</a>	18	Correction version-numbers.conf after merge	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8283834</a>	17, 11	Unmappable character for US-ASCII encoding in TestPredicateInputBelowLoopPredicate	PSU
<a href="#">JDK-8283725</a>	18, 17	Launching java with "-Xlog:gc*=trace,safepoint*=trace,class*=trace" crashes the JVM	PSU
<a href="#">JDK-8283641</a>	18, 17, 11	Large value for CompileThresholdScaling causes assert	PSU
<a href="#">JDK-8283614</a>	11	[11] Repair compiler versions handling after backport of 8233787	PSU
<a href="#">JDK-8283555</a>	18	G1: Concurrent mark accesses uninitialized BOT of closed archive regions	PSU
<a href="#">JDK-8283497</a>	17, 11	[windows] print TMP and TEMP in hs_err and VM.info	PSU
<a href="#">JDK-8283469</a>	18, 17, 11	Don't use memset to initialize members in FileMapInfo and fix memory leak	PSU
<a href="#">JDK-8283451</a>	18, 17, 11	C2: assert(_base == Long) failed: Not a Long	PSU
<a href="#">JDK-8283444</a>	13	Bump update version for OpenJDK: jdk-13.0.12	PSU
<a href="#">JDK-8283443</a>	15	Bump update version for OpenJDK: jdk-15.0.8	PSU
<a href="#">JDK-8283424</a>	11	compiler/loopopts/LoopUnswitchingBadNodeBudget.java fails with release VMs due to lack of -XX:+UnlockDiagnosticVMOptions	PSU
<a href="#">JDK-8283422</a>	18, 17	Create a new test for JDK-8254790	PSU
<a href="#">JDK-8283420</a>	11	[AOT] Exclude TrackedFlagTest/NotTrackedFlagTest in 11u because of intermittent java.lang.AssertionError: duplicate classes for name Ljava/lang/Boolean;	PSU
<a href="#">JDK-8283408</a>	18, 17, 11	Fix a C2 crash when filling arrays with unsafe	PSU
<a href="#">JDK-8283379</a>	18	Memory leak in FileHeaderHelper	PSU

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<a href="#">JDK-8283347</a>	17	[macos] Bad JNI lookup accessibilityHitTest is shown when Screen magnifier is enabled	PSU
<a href="#">JDK-8283323</a>	17, 11	libharfbuzz optimization level results in extreme build times	PSU
<a href="#">JDK-8283315</a>	17	jrt-fs.jar not always deterministically built	PSU
<a href="#">JDK-8283279</a>	17	[Testbug] Improve TestGetSwapSpaceSize	PSU
<a href="#">JDK-8283249</a>	17	CompressedClassPointers.java fails on ppc with 'Narrow class shift: 0' missing	PSU
<a href="#">JDK-8283217</a>	18, 17, 11	Leak FcObjectSet in getFontConfigLocations() in fontpath.c	PSU
<a href="#">JDK-8283187</a>	18, 17	C2: loop candidate for superword not always unrolled fully if superword fails	PSU
<a href="#">JDK-8283037</a>	18	Update jdk18u fix version to 18.0.2	PSU
<a href="#">JDK-8283022</a>	18	com/sun/crypto/provider/Cipher/AEAD/GCMBufferTest.java failing with -Xcomp after 8273297	PSU
<a href="#">JDK-8283017</a>	18, 17	GHA: Workflows break with update release versions	PSU
<a href="#">JDK-8282929</a>	18, 17, 15	Localized monetary symbols are not reflected in <code>toLocalizedPattern</code> return value	PSU
<a href="#">JDK-8282887</a>	18, 17, 11	Potential memory leak in <code>sun.util.locale.provider.HostLocaleProviderAdapterImpl.getNumberPattern()</code> on Windows	PSU
<a href="#">JDK-8282874</a>	18, 17	Bad performance on gather/scatter API caused by different IntSpecies of indexMap	PSU
<a href="#">JDK-8282676</a>	18	Improve subject handling	PSU
<a href="#">JDK-8282628</a>	18, 17	Potential memory leak in <code>sun.font.FontConfigManager.getFontConfig()</code>	PSU

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<a href="#">JDK-8282592</a>	18, 17	C2: assert(false) failed: graph should be schedulable	PSU
<a href="#">JDK-8282590</a>	18, 17	C2: assert(addp.is_AddP() && addp.outcnt() > 0) failed: Don't process dead nodes	PSU
<a href="#">JDK-8282589</a>	11	runtime/ErrorHandling/ErrorHandler.java fails on macOS AArch64 in JDK 11	PSU
<a href="#">JDK-8282588</a>	11	[11] set harfbuzz compilation flag to -std=c++11	PSU
<a href="#">JDK-8282583</a>	18, 17, 15, 11	Update BCEL md to include the copyright notice	PSU
<a href="#">JDK-8282552</a>	8	Bump update version of OpenJDK: 8u342	PSU
<a href="#">JDK-8282551</a>	18, 17	Properly initialize L32X64MixRandom state	PSU
<a href="#">JDK-8282538</a>	17, 15, 13, 11, 8	PKCS11 tests fail on CentOS Stream 9	PSU
<a href="#">JDK-8282509</a>	17	[exploded image] ResolvedClassTest fails with similar output	PSU
<a href="#">JDK-8282501</a>	11	Bump update version for OpenJDK: jdk-11.0.16	PSU
<a href="#">JDK-8282499</a>	17	Bump update version for OpenJDK: jdk-17.0.4	PSU
<a href="#">JDK-8282458</a>	8	Update .jcheck/conf file for 8u move to git	PSU
<a href="#">JDK-8282444</a>	18, 17	Module finder incorrectly assumes default file system path-separator character	PSU
<a href="#">JDK-8282422</a>	17, 11	JTable.print() failed with UnsupportedCharsetException on AIX ko_KR locale	PSU
<a href="#">JDK-8282382</a>	17, 11	Report glibc malloc tunables in error reports	PSU
<a href="#">JDK-8282345</a>	17	handle latest VS2022 in abstract_vm_version	PSU
<a href="#">JDK-8282312</a>	18, 17, 11	Minor corrections to evbroadcasti32x4 intrinsic on x86	PSU
<a href="#">JDK-8282295</a>	18, 17	SymbolPropertyEntry::set_method_type fails with assert	PSU

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<a href="#">JDK-8282293</a>	17, 11	Domain value for system property <code>jdk.https.negotiate.cbt</code> should be case-insensitive	PSU
<a href="#">JDK-8282231</a>	18, 17, 15, 11	x86-32: runtime call to <code>SharedRuntime::ldiv</code> corrupts registers	PSU
<a href="#">JDK-8282225</a>	18, 17, 11, 8	GHA: Allow one concurrent run per PR only	PSU
<a href="#">JDK-8282194</a>	18	C1: Missing side effects of dynamic constant linkage	PSU
<a href="#">JDK-8282172</a>	18, 17, 11	<code>CompileBroker::log_metaspaces_failure</code> is called from non-Java/compiler threads	PSU
<a href="#">JDK-8282170</a>	18, 17	JVMTI <code>SetBreakpoint</code> metaspaces allocation test	PSU
<a href="#">JDK-8282142</a>	17	[TestCase] <code>compiler/inlining/ResolvedClassTest.java</code> will fail when <code>--with-jvm-features=-compiler1</code>	PSU
<a href="#">JDK-8282080</a>	18	Lambda deserialization fails for Object method references on interfaces	PSU
<a href="#">JDK-8282045</a>	18, 17	When loop strip mining fails, safepoints are removed from loop anyway	PSU
<a href="#">JDK-8282042</a>	18	[testbug] <code>FileEncodingTest.java</code> depends on default encoding	PSU
<a href="#">JDK-8282008</a>	17, 11	Incorrect handling of quoted arguments in <code>ProcessBuilder</code>	PSU
<a href="#">JDK-8281822</a>	18, 17	Test failures on non-DTrace builds due to incomplete DTrace* flags handling	PSU
<a href="#">JDK-8281814</a>	8	<code>Debuginfo.diz</code> contains redundant build path after backport <code>JDK-8025936</code>	PSU
<a href="#">JDK-8281811</a>	18, 17, 11	<code>assert(_base == Tuple)</code> failed: Not a Tuple after <code>JDK-8280799</code>	PSU

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<a href="#">JDK-8281771</a>	18, 17	Crash in java_lang_invoke_MethodType::print_signature	PSU
<a href="#">JDK-8281638</a>	18, 17	jfr/event/allocation tests fail with release VMs after JDK-8281318 due to lack of -XX:+UnlockDiagnosticVMOptions	PSU
<a href="#">JDK-8281615</a>	18, 17, 11	Deadlock caused by jdwp agent	PSU
<a href="#">JDK-8281544</a>	18, 17	assert(VM_Version::supports_avx512bw()) failed for Tests jdk/incubator/vector/	PSU
<a href="#">JDK-8281522</a>	17	Rename ADLC classes which have the same name as hotspot variants	PSU
<a href="#">JDK-8281450</a>	17	Remove unnecessary operator new and delete from ObjectMonitor	PSU
<a href="#">JDK-8281338</a>	17	NSAccessibilityPressAction action for tree node and NSAccessibilityShowMenuAction action not working	PSU
<a href="#">JDK-8281318</a>	18, 17	Improve jfr/event/allocation tests reliability	PSU
<a href="#">JDK-8281274</a>	18, 17, 11	deal with ActiveProcessorCount in os::Linux::print_container_info	PSU
<a href="#">JDK-8281266</a>	18, 17	[JVMCI] MetaUtil.toInternalName() doesn't handle hidden classes correctly	PSU
<a href="#">JDK-8281181</a>	18	Do not use CPU Shares to compute active processor count	PSU
<a href="#">JDK-8281168</a>	18, 17	Micro-optimize VarForm.getMemberName for interpreter	PSU
<a href="#">JDK-8281043</a>	17	Intrinsify recursive ObjectMonitor locking for PPC64	PSU
<a href="#">JDK-8280964</a>	17, 11	[Linux aarch64] : drawImage dithers TYPE_BYTE_INDEXED images incorrectly	PSU

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<a href="#">JDK-8280956</a>	18, 17	Re-examine copyright headers on files in src/java.desktop/macosx/native/libawt_lwawt/awt/a11y	PSU
<a href="#">JDK-8280941</a>	17	os::print_memory_mappings() prints segment preceeding the inclusion range	PSU
<a href="#">JDK-8280940</a>	17	gtest os.release_multi_mappings_vm is racy	PSU
<a href="#">JDK-8280901</a>	18, 17	MethodHandle::linkToNative stub is missing w/ -Xint	PSU
<a href="#">JDK-8280867</a>	18, 17, 11	Cpuid1Ecx feature parsing is incorrect for AMD CPUs	PSU
<a href="#">JDK-8280799</a>	18, 17, 11	C2: assert(false) failed: cyclic dependency prevents range check elimination	PSU
<a href="#">JDK-8280684</a>	17, 11	JfrRecorderService failes with guarantee(num_written > 0) when no space left on device.	PSU
<a href="#">JDK-8280674</a>	18	Bump version numbers for July CPU	PSU
<a href="#">JDK-8280600</a>	18, 17	C2: assert(!had_error) failed: bad dominance	PSU
<a href="#">JDK-8280593</a>	17	[PPC64, S390] redundant allocation of MacroAssembler in StubGenerator ctor	PSU
<a href="#">JDK-8280543</a>	17	Update the "java" and "jcmd" tool specification for CDS	PSU
<a href="#">JDK-8280476</a>	18, 17, 11	[macOS] : hotspot arm64 bug exposed by latest clang	PSU
<a href="#">JDK-8280401</a>	17	[sspi] gss_accept_sec_context leaves output_token uninitialized	PSU
<a href="#">JDK-8280041</a>	18, 17, 11	Retry loop issues in java.io.ClassCache	PSU
<a href="#">JDK-8280004</a>	17	DCmdArgument<jlong>::parse_value() should handle NULL input	PSU

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<a href="#">JDK-8279958</a>	18, 17, 11	Provide configure hints for Alpine/apk package managers	PSU
<a href="#">JDK-8279842</a>	17, 11	HTTPS Channel Binding support for Java GSS/Kerberos	PSU
<a href="#">JDK-8279837</a>	17, 11	C2: assert(is_Loop()) failed: invalid node class: Region	PSU
<a href="#">JDK-8279834</a>	17	Alpine Linux fails to build when --with-source-date enabled	PSU
<a href="#">JDK-8279822</a>	18, 17	C1: Constant pool entries in error state are not supported	PSU
<a href="#">JDK-8279668</a>	18, 17, 11	x86: AVX2 versions of vpxor should be asserted	PSU
<a href="#">JDK-8279597</a>	17	[TESTBUG] ReturnBlobToWrongHeapTest.java fails with -XX:TieredStopAtLevel=1 on machines with many cores	PSU
<a href="#">JDK-8279586</a>	17	[macos] custom JCheckBox and JRadioBox with custom icon set: focus is still displayed after unchecking	PSU
<a href="#">JDK-8279560</a>	17	AArch64: generate_compare_long_string_same_encoding and LARGE_LOOP_PREFETCH alignment	PSU
<a href="#">JDK-8279520</a>	17, 11	SPNEGO has not passed channel binding info into the underlying mechanism	PSU
<a href="#">JDK-8279515</a>	17	C1: No inlining through invokedynamic and invokestatic call sites when resolved class is not linked	PSU
<a href="#">JDK-8279356</a>	17, 11	Method linking fails with guarantee(mhAdapter() != NULL) failed: Adapter blob must already exist!	PSU
<a href="#">JDK-8279227</a>	17	Access Bridge: Wrong frame position and hit test result on HiDPI display	PSU

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<a href="#">JDK-8279219</a>	18, 17, 11	[REDO] C2 crash when allocating array of size too large	PSU
<a href="#">JDK-8279182</a>	17	MakeZipReproducible ZipEntry timestamps not localized to UTC	PSU
<a href="#">JDK-8278966</a>	17	two microbenchmarks tests fail "assert(!jvms[method]()has_exception_handlers()) failed: no exception handler expected" after JDK-8275638	PSU
<a href="#">JDK-8278948</a>	17	compiler/vectorapi/reshape/TestVectorCastAVX1.java crashes in assembler	PSU
<a href="#">JDK-8278796</a>	17	Incorrect behavior of FloatVector.withLane on x86	PSU
<a href="#">JDK-8278794</a>	18, 17, 15, 13, 11	Infinite loop in DeflaterOutputStream.finish()	PSU
<a href="#">JDK-8278766</a>	17	Enable OpenJDK build support for reproducible jars and jmods using <code>-date</code>	PSU
<a href="#">JDK-8278549</a>	18, 17	UNIX sun/font coding misses SUSE distro detection on recent distro SUSE 15	PSU
<a href="#">JDK-8278519</a>	17	serviceability/jvmti/FieldAccessWatch/FieldAccessWatch.java failed "assert(handle != __null) failed: JNI handle should not be null"	PSU
<a href="#">JDK-8278138</a>	8	OpenJDK8 fails to start on Windows 8.1 after upgrading compiler to VS2017	PSU
<a href="#">JDK-8278065</a>	18, 17, 11	Refactor subclassAudits to use ClassValue	PSU
<a href="#">JDK-8278014</a>	17	[vectorapi] Remove test run script	PSU
<a href="#">JDK-8277922</a>	17, 11	Unable to click JCheckBox in JTable through Java Access Bridge	PSU
<a href="#">JDK-8277906</a>	17	Incorrect type for IV phi of long counted loops after CCP	PSU



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<a href="#">JDK-8277893</a>	18, 17	Arraycopy stress tests	PSU
<a href="#">JDK-8277422</a>	17, 11	tools/jar/JarEntryTime.java fails with modified time mismatch	PSU
<a href="#">JDK-8277396</a>	17, 11	[TESTBUG] In DefaultButtonModelCrashTest.java, frame is accessed from main thread	PSU
<a href="#">JDK-8277166</a>	17	Data race in jdeps VersionHelper	PSU
<a href="#">JDK-8277165</a>	17	jdeps --multi-release --print-module-deps fails if module-info.class in different versioned directories	PSU
<a href="#">JDK-8277123</a>	17	jdeps does not report some exceptions correctly	PSU
<a href="#">JDK-8277093</a>	11	Vector should throw ClassNotFoundException for a missing class of an element	PSU
<a href="#">JDK-8277087</a>	17, 15, 13	ZipException: zip END header not found at ZipFile#Source.findEND	PSU
<a href="#">JDK-8277072</a>	18, 17, 11	ObjectStreamClass caches keep ClassLoaders alive	PSU
<a href="#">JDK-8277055</a>	18, 17	Assert "missing inlining msg" with -XX:+PrintIntrinsics	PSU
<a href="#">JDK-8276880</a>	17	Remove java/lang/RuntimeTests/exec/ExecWithDir as unnecessary	PSU
<a href="#">JDK-8276863</a>	17	Remove test/jdk/sun/security/ec/ECDSAJavaVerify.java	PSU
<a href="#">JDK-8276825</a>	17	hotspot/runtime/SelectionResolution test errors	PSU
<a href="#">JDK-8276796</a>	17	gc/TestSystemGC.java large pages subtest fails with ZGC	PSU
<a href="#">JDK-8276657</a>	17, 15, 13, 11	XSLT compiler tries to define a class with empty name	PSU

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<a href="#">JDK-8275854</a>	17	C2: assert(stride_con != 0) failed: missed some peephole opt	PSU
<a href="#">JDK-8275830</a>	17	C2: Receiver downcast is missing when inlining through method handle linkers	PSU
<a href="#">JDK-8275745</a>	17	Reproducible copyright headers	PSU
<a href="#">JDK-8275638</a>	17	GraphKit::combine_exception_states fails with "matching stack sizes" assert	PSU
<a href="#">JDK-8275337</a>	18, 17, 11	C1: assert(false) failed: live_in set of first block must be empty	PSU
<a href="#">JDK-8275037</a>	17	Test vmTestbase/nsk/sysdict/vm/stress/btree/btree011/btree011.java crashes with memory exhaustion on Windows	PSU
<a href="#">JDK-8274983</a>	17	C1 optimizes the invocation of private interface methods	PSU
<a href="#">JDK-8274939</a>	17	Incorrect size of the pixel storage is used by the robot on macOS	PSU
<a href="#">JDK-8274855</a>	17	vectorapi tests failing with assert(!vbox.is_Phi()) failed	PSU
<a href="#">JDK-8274735</a>	17, 15, 11	javax.imageio.IIOException: Unsupported Image Type while processing a valid JPEG image	PSU
<a href="#">JDK-8274687</a>	17	JDWP deadlocks if some Java thread reaches wait in blockOnDebuggerSuspend	PSU
<a href="#">JDK-8274561</a>	17	sun/net/ftp/TestFtpTimeValue.java timed out on slow machines	PSU
<a href="#">JDK-8274244</a>	17	ReportOnImportedModuleAnnotation.java fails on rerun	PSU
<a href="#">JDK-8274233</a>	17, 11	Minor cleanup for ToolBox	PSU

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<a href="#">JDK-8274172</a>	17	Convert JavadocTester to use NIO	PSU
<a href="#">JDK-8273935</a>	15	(zipfs) Files.getFileAttributeView() throws UOE instead of returning null when view not supported	PSU
<a href="#">JDK-8273826</a>	13	Correct Manifest file name and NPE checks	PSU
<a href="#">JDK-8273804</a>	17	Platform.isTieredSupported should handle the no-compiler case	PSU
<a href="#">JDK-8273169</a>	17	java/util/regex/NegativeArraySize.java failed after JDK-8271302	PSU
<a href="#">JDK-8273142</a>	17	Remove dependency of TestHttpServer, HttpTransaction, HttpCallback from open/test/jdk/sun/net/www/protocol/http/ tests	PSU
<a href="#">JDK-8273095</a>	17	vmTestbase/vm/mlvm/anonloader/stress/oome/heap/Test.java fails with "wrong OOME"	PSU
<a href="#">JDK-8272964</a>	17, 11	java/nio/file/Files/InterruptCopy.java fails with java.lang.RuntimeException: Copy was not interrupted	PSU
<a href="#">JDK-8272908</a>	17, 11	Missing coverage for certain classes in com.sun.org.apache.xml.internal.security	PSU
<a href="#">JDK-8272574</a>	15, 13	C2: assert(false) failed: Bad graph detected in build_loop_late	PSU
<a href="#">JDK-8272493</a>	18, 17, 11	Suboptimal code generation around Preconditions.checkIndex intrinsic with AVX2	PSU
<a href="#">JDK-8272358</a>	17, 11	Some tests may fail when executed with other locales than the US	PSU
<a href="#">JDK-8272169</a>	17	runtime/logging/LoaderConstraintsTest.java doesn't build test.Empty	PSU
<a href="#">JDK-8272168</a>	17	some hotspot runtime/logging tests don't check exit code	PSU

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<a href="#">JDK-8272146</a>	17	Disable Fibonacci test on memory constrained systems	PSU
<a href="#">JDK-8271302</a>	17	Regex Test Refresh	PSU
<a href="#">JDK-8271224</a>	17	runtime/EnclosingMethodAttr/EnclMethodAttr.java doesn't check exit code	PSU
<a href="#">JDK-8271055</a>	18, 17, 11	Crash during deoptimization with "assert(bb.is_reachable()) failed: getting result from unreachable basicblock" with -XX:+VerifyStack	PSU
<a href="#">JDK-8271008</a>	18, 17	appcads/*/MethodHandlesAsCollectorTest.java tests time out because of excessive GC (CodeCache GC Threshold) in loom	PSU
<a href="#">JDK-8270886</a>	15, 13	Crash in PhaseldealLoop::verify_strip_mined_scheduling	PSU
<a href="#">JDK-8270837</a>	17	fix typos in test TestSigParse.java	PSU
<a href="#">JDK-8270797</a>	17, 11	ShortECDSA.java test is not complete	PSU
<a href="#">JDK-8270468</a>	17	TestRangeCheckEliminated fails because methods are not compiled	PSU
<a href="#">JDK-8270435</a>	17	UT: MonitorUsedDeflationThresholdTest failed: did not find too_many string in output	PSU
<a href="#">JDK-8270336</a>	17	[TESTBUG] Fix initialization in NonbranchyTree	PSU
<a href="#">JDK-8270021</a>	17	Incorrect log decorators in gc/g1/plab/TestPLABEvacuationFailure.java	PSU
<a href="#">JDK-8269933</a>	17, 11	test/jdk/javax/net/ssl/compatibility/JdkInfo incorrect verification of protocol and cipher support	PSU
<a href="#">JDK-8269772</a>	11	[macos-aarch64] test compilation failed with "SocketException: No buffer space available"	PSU

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<a href="#">JDK-8269753</a>	17	Misplaced caret in PatternSyntaxException's detail message	PSU
<a href="#">JDK-8269373</a>	17	some tests in jdk/tools/launcher/ fails on localized Windows platform	PSU
<a href="#">JDK-8269135</a>	17	TestDifferentProtectionDomains runs into timeout in client VM	PSU
<a href="#">JDK-8269129</a>	17	Multiple tier1 tests in hotspot/jtreg/compiler are failing for client VMs	PSU
<a href="#">JDK-8269077</a>	17	TestSystemGC uses "require vm.gc.G1" for large pages subtest	PSU
<a href="#">JDK-8268906</a>	17	gc/g1/mixedgc/TestOldGenCollectionUsage.java assumes that GCs take 1ms minimum	PSU
<a href="#">JDK-8268773</a>	17, 11	Improvements related to: Failed to start thread - pthread_create failed (EAGAIN)	PSU
<a href="#">JDK-8268595</a>	17	java/io/Serializable/serialFilter/GlobalFilterTest.java#id1 failed in timeout	PSU
<a href="#">JDK-8268558</a>	17	[TESTBUG] Case 2 in TestP11KeyFactoryGetRSAKeySpec is skipped	PSU
<a href="#">JDK-8268231</a>	17	Aarch64: Use Ldp in intrinsics for String.compareTo	PSU
<a href="#">JDK-8267163</a>	17	Rename anonymous loader tests to hidden loader tests	PSU
<a href="#">JDK-8266391</a>	11	Replace use of reflection in jdk.internal.platform.Metrics	PSU
<a href="#">JDK-8266318</a>	11	Switch to macos prefix for macOS bundles	PSU
<a href="#">JDK-8266251</a>	11	compiler.inlining.InlineAccessors shouldn't do testing in driver VM	PSU
<a href="#">JDK-8265343</a>	11	Update Debian-based cross-compilation recipes	PSU

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<a href="#">JDK-8265317</a>	17	[vector] assert(payload.is_object()) failed: expected 'object' value for scalar-replaced boxed vector but got: NULL	PSU
<a href="#">JDK-8265297</a>	11	javax/net/ssl/SSLSession/TestEnabledProtocols.java failed with "RuntimeException: java.net.SocketException: Connection reset"	PSU
<a href="#">JDK-8265261</a>	17, 11	java/nio/file/Files/InterruptCopy.java fails with java.lang.RuntimeException: Copy was not interrupted	PSU
<a href="#">JDK-8264605</a>	17	vmTestbase/nsk/jvmti/SuspendThread/suspendthread003/TestDescription.java failed with "agent_tools.cpp, 471: (foundThread = (jthread) jni_env->NewGlobalRef(foundThread)) != NULL"	PSU
<a href="#">JDK-8264179</a>	11	[TESTBUG] Some compiler tests fail when running without C2	PSU
<a href="#">JDK-8263856</a>	11	Github Actions for macos/aarch64 cross-build	PSU
<a href="#">JDK-8263718</a>	11	unused-result warning happens at os_linux.cpp	PSU
<a href="#">JDK-8263667</a>	8	Avoid running GitHub actions on branches named pr/*	PSU
<a href="#">JDK-8263538</a>	17	SharedArchiveConsistency.java should test -Xshare:auto as well	PSU
<a href="#">JDK-8263461</a>	17	jdk/jfr/event/gc/detailed/TestEvacuationFailedEvent.java uses wrong mechanism to cause evacuation failure	PSU
<a href="#">JDK-8263364</a>	11	sun/net/www/http/KeepAliveStream/KeepAliveStreamCloseWithWrongContentLength.java wedged in getInputStream	PSU
<a href="#">JDK-8262379</a>	11	Add regression test for JDK-8257746	PSU
<a href="#">JDK-8260518</a>	11	Change default -mmacosx-version-min to 10.12	PSU

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<a href="#">JDK-8260460</a>	8	GitHub actions still fail on Linux x86_32 with "Could not configure libc6:i386"	PSU
<a href="#">JDK-8259924</a>	8	GitHub actions fail on Linux x86_32 with "Could not configure libc6:i386"	PSU
<a href="#">JDK-8259517</a>	11	Incorrect test path in test cases	PSU
<a href="#">JDK-8258956</a>	11	Memory Leak in StringCoding on ThreadLocal resultCached StringCoding.Result	PSU
<a href="#">JDK-8258795</a>	15, 13, 11	Update IANA Language Subtag Registry to Version 2021-05-11	PSU
<a href="#">JDK-8258471</a>	15, 13	"search codecache" clhsdb command does not work	PSU
<a href="#">JDK-8258077</a>	15	Using -Xcheck:jni can lead to a double-free after JDK-8193234	PSU
<a href="#">JDK-8257794</a>	15, 13, 11	Zero: assert(istate->stack_limit == istate->thread->last_Java_sp() + 1) failed: wrong on Linux/x86_32	PSU
<a href="#">JDK-8257056</a>	8	Submit workflow should apt-get update to avoid package installation errors	PSU
<a href="#">JDK-8256747</a>	8	GitHub Actions: decouple the hotspot build-only jobs from Linux x64 testing	PSU
<a href="#">JDK-8256414</a>	8	add optimized build to submit workflow	PSU
<a href="#">JDK-8256393</a>	8	Github Actions build on Linux should define OS and GCC versions	PSU
<a href="#">JDK-8256368</a>	18, 17	Avoid repeated upcalls into Java to re-resolve MH/VH linkers/invokers	PSU
<a href="#">JDK-8256354</a>	8	Github Action build on Windows should define OS and MSVC versions	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8256277</a>	8	Github Action build on macOS should define OS and Xcode versions	PSU
<a href="#">JDK-8256146</a>	11	Cleanup test/jdk/java/nio/channels/DatagramChannel/Connect.java	PSU
<a href="#">JDK-8256127</a>	8	Add cross-compiled foreign architectures builds to submit workflow	PSU
<a href="#">JDK-8255895</a>	8	Submit workflow artifacts miss hs_errs/replays due to ZIP include mismatch	PSU
<a href="#">JDK-8255787</a>	11	Tag container tests that use cGroups with cgroups keyword	PSU
<a href="#">JDK-8255604</a>	11	java/nio/channels/DatagramChannel/Connect.java fails with java.net.BindException: Cannot assign requested address: connect	PSU
<a href="#">JDK-8255373</a>	8	Submit workflow artifact name is always "test-results_.zip"	PSU
<a href="#">JDK-8255352</a>	8	Archive important test outputs in submit workflow	PSU
<a href="#">JDK-8255305</a>	8	Add Linux x86_32 tier1 to submit workflow	PSU
<a href="#">JDK-8255266</a>	17, 15, 13, 11	Update Public Suffix List to 3c213aa	PSU
<a href="#">JDK-8254997</a>	11	Remove unimplemented OSContainer::read_memory_limit_in_bytes	PSU
<a href="#">JDK-8254887</a>	11	C2: assert(c\trip_count() > 0) failed: peeling a fully unrolled loop	PSU
<a href="#">JDK-8254282</a>	8	Add Linux x86_32 builds to submit workflow	PSU
<a href="#">JDK-8254175</a>	8	Build no-pch configuration in debug mode for submit checks	PSU
<a href="#">JDK-8254173</a>	8	Add Zero, Minimal hotspot targets to submit workflow	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8254054</a>	8	Pre-submit testing using GitHub Actions should not use the deprecated set-env command	PSU
<a href="#">JDK-8254001</a>	11	[Metrics] Enhance parsing of cgroup interface files for version detection	PSU
<a href="#">JDK-8253939</a>	11	[TESTBUG] Increase coverage of the cgroups detection code	PSU
<a href="#">JDK-8253872</a>	11	ArgumentHandler must use the same delimiters as in jvmti_tools.cpp	PSU
<a href="#">JDK-8253865</a>	8	Pre-submit testing using GitHub Actions does not detect failures reliably	PSU
<a href="#">JDK-8253829</a>	11	Wrong length compared in SSPI bridge	PSU
<a href="#">JDK-8253797</a>	11	[cgroups v2] Account for the fact that swap accounting is disabled on some systems	PSU
<a href="#">JDK-8253727</a>	11	[cgroups v2] Memory and swap limits reported incorrectly	PSU
<a href="#">JDK-8253714</a>	11	[cgroups v2] Soft memory limit incorrectly using memory.high	PSU
<a href="#">JDK-8253435</a>	11	Cgroup: 'stomping of _mount_path' crash if manually mounted cpuset exist	PSU
<a href="#">JDK-8253424</a>	8	Add support for running pre-submit testing using GitHub Actions	PSU
<a href="#">JDK-8252957</a>	11	Wrong comment in CgroupV1Subsystem::cpu_quota	PSU
<a href="#">JDK-8252401</a>	15	Introduce Utils.TEST_NATIVE_PATH	PSU
<a href="#">JDK-8252359</a>	11	HotSpot Not Identifying it is Running in a Container	PSU
<a href="#">JDK-8252250</a>	11	isnanf is obsolete	PSU
<a href="#">JDK-8252248</a>	11	__SIGRTMAX is not declared in musl libc	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8252117</a>	11	com/sun/jdi/BadHandshakeTest.java failed with "ConnectException: Connection refused: connect"	PSU
<a href="#">JDK-8251904</a>	17	vmTestbase/nsk/sysdict/vm/stress/btree/btree010/btree010.java fails with ClassNotFoundException: nsk.sysdict.share.BTree0LLRLRLRRLR	PSU
<a href="#">JDK-8250863</a>	15, 13	Build error with GCC 10 in NetworkInterface.c and k_standard.c	PSU
<a href="#">JDK-8249592</a>	17, 11	Robot.mouseMove moves cursor to incorrect location when display scale varies and Java runs in DPI Unaware mode	PSU
<a href="#">JDK-8248876</a>	11, 8	LoadObject with bad base address created for exec file on linux	PSU
<a href="#">JDK-8247614</a>	11	java/nio/channels/DatagramChannel/Connect.java timed out	PSU
<a href="#">JDK-8247592</a>	11	refactor test/jdk/tools/launcher/Test7029048.java	PSU
<a href="#">JDK-8247591</a>	11	Document Alpine Linux build steps in OpenJDK build guide	PSU
<a href="#">JDK-8246741</a>	11	NetworkInterface/UniqueMacAddressesTest: mac address uniqueness test failed	PSU
<a href="#">JDK-8245938</a>	11	Remove unused print_stack(void) method from XToolkit.c	PSU
<a href="#">JDK-8245543</a>	11	Cgroups: Incorrect detection logic on some systems (still reproducible)	PSU
<a href="#">JDK-8244973</a>	8	serviceability/attach/RemovingUnixDomainSocket Test.java fails "stderr was not empty"	PSU
<a href="#">JDK-8244500</a>	11	jtreg test error in test/hotspot/jtreg/containers/docker/TestMemoryAwareness.java	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8243666</a>	11	ModuleHashes attribute generated for JMOD and JAR files depends on timestamps	PSU
<a href="#">JDK-8242538</a>	11	java/security/SecureRandom/ThreadSafe.java failed on windows	PSU
<a href="#">JDK-8242108</a>	11	Performance regression after fix for JDK-8229496	PSU
<a href="#">JDK-8241271</a>	13	Make hotspot build reproducible	PSU
<a href="#">JDK-8240903</a>	18	Add test to check that jmod hashes are reproducible	PSU
<a href="#">JDK-8240756</a>	17, 11	[macos] SwingSet2:TableDemo:Printed Japanese characters were garbled	PSU
<a href="#">JDK-8240734</a>	11	ModuleHashes attribute not reproducible between builds	PSU
<a href="#">JDK-8240335</a>	11	C2: assert(found_sfpt) failed: no node in loop that's not input to safepoint	PSU
<a href="#">JDK-8240189</a>	11	[TESTBUG] Some cgroup tests are failing after JDK-8231111	PSU
<a href="#">JDK-8239785</a>	11	Cgroups: Incorrect detection logic on old systems in hotspot	PSU
<a href="#">JDK-8239559</a>	11	Cgroups: Incorrect detection logic on some systems	PSU
<a href="#">JDK-8237479</a>	11	8230305 causes slowdebug build failure	PSU
<a href="#">JDK-8236136</a>	17	tests which use CompilationMode shouldn't be run w/ TieredStopAtLevel	PSU
<a href="#">JDK-8235385</a>	11	Crash on aarch64 JDK due to long offset	PSU
<a href="#">JDK-8235220</a>	11	ClhsdbScanOops.java fails with sun.jvm.hotspot.types.WrongTypeException	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8235211</a>	8	serviceability/attach/RemovingUnixDomainSocket Test.java fails with AttachNotSupportedException: Unable to open socket file	PSU
<a href="#">JDK-8234608</a>	11	[TESTBUG] Fix G1 redefineClasses tests and a memory leak	PSU
<a href="#">JDK-8234605</a>	11	C2 failed "assert(C::live_nodes() - live_at_begin <= 2 *_nodes_required) failed: Bad node estimate: actual = 208 >> request = 101"	PSU
<a href="#">JDK-8234382</a>	11	Test tools/javac/processing/model/testgetallmembers/ Main.java using too small heap	PSU
<a href="#">JDK-8233941</a>	13	Generated Pipeline_Use_Cycle_Mask::operator= interferes with memcopy updates	PSU
<a href="#">JDK-8233787</a>	11	Break cycle in vm_version* includes	PSU
<a href="#">JDK-8233551</a>	11	[TESTBUG] SelectEditTableCell.java fails on MacOS	PSU
<a href="#">JDK-8231565</a>	11	More node budget asserts in fuzzed tests	PSU
<a href="#">JDK-8231489</a>	11	GC watermark_0_1 failed due to "metaspace.gc.Fault: GC has happened too rare"	PSU
<a href="#">JDK-8231454</a>	11	File lock in Windows on a loaded jar due to a leak in Introspector::getBeanInfo	PSU
<a href="#">JDK-8230865</a>	11, 8	[TESTBUG] jdk/jfr/event/io/EvilInstrument.java fails at-run shell MakeJAR.sh target	PSU
<a href="#">JDK-8230305</a>	11	Cgroups v2: Container awareness	PSU
<a href="#">JDK-8229499</a>	11	Node budget assert in fuzzed test	PSU
<a href="#">JDK-8229210</a>	11	[TESTBUG] Move gc stress tests from JFR directory tree to gc/stress	PSU
<a href="#">JDK-8229202</a>	11	Docker reporting causes secondary crashes in error handling	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8227389</a>	11	Remove unsupported xlc16 compile options on aix	PSU
<a href="#">JDK-8227275</a>	11	Within native OOM error handling, assertions may hang the process	PSU
<a href="#">JDK-8227171</a>	11	provide function names in native stack trace on aix with xlc16	PSU
<a href="#">JDK-8225475</a>	11	Node budget asserts on x86_32/64	PSU
<a href="#">JDK-8225122</a>	15	Test AncestorResized.java fails when Windows desktop is scaled.	PSU
<a href="#">JDK-8224648</a>	11	assert(!exceeding_node_budget()) failed: Too many NODES required! failure with ctw	PSU
<a href="#">JDK-8223502</a>	11	Node estimate for loop unswitching is not correct: assert(delta >= 2 * required) failed: Bad node estimate	PSU
<a href="#">JDK-8223396</a>	11, 8	[TESTBUG] several jfr tests do not clean up files created in /tmp	PSU
<a href="#">JDK-8223389</a>	11	Shenandoah optimizations fail with assert(!phase<exceeding_node_budget())	PSU
<a href="#">JDK-8223363</a>	11	Bad node estimate assertion failure	PSU
<a href="#">JDK-8223143</a>	11	Restructure/clean-up for 'loopexit_or_null()'	PSU
<a href="#">JDK-8222926</a>	11	Shenandoah build fails with --with-jvm-features=-compiler1	PSU
<a href="#">JDK-8222799</a>	11	java.beans.Introspector uses an obsolete methods cache	PSU
<a href="#">JDK-8220813</a>	11	update hotspot tier1_gc tests depending on GC to use @requires vm.gc.X	PSU
<a href="#">JDK-8220658</a>	11	Improve the readability of container information in the error log	PSU
<a href="#">JDK-8218965</a>	11	aix: support xlclang++ in the compiler detection	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8218751</a>	11	Do not store original classfiles inside the CDS archive	PSU
<a href="#">JDK-8218136</a>	11	minor hotspot adjustments for xlclang++ from xlc16 on AIX	PSU
<a href="#">JDK-8217879</a>	11	hs_err should print more instructions in hex dump	PSU
<a href="#">JDK-8217473</a>	11	SA: Tests using ClhsdbLauncher fail on SAP docker containers	PSU
<a href="#">JDK-8217340</a>	11	Compilation failed: tools/launcher/Test7029048.java	PSU
<a href="#">JDK-8217233</a>	11	Update build settings for AIX/xlc	PSU
<a href="#">JDK-8217017</a>	11	[TESTBUG] Tests fail to compile after JDK-8216265	PSU
<a href="#">JDK-8216366</a>	11	Add rationale to PER_CPU_SHARES define	PSU
<a href="#">JDK-8216265</a>	11	[testbug] Introduce Platform.sharedLibraryPathVariableName() and adapt all tests.	PSU
<a href="#">JDK-8216137</a>	11	assert(Compile::current()&live_nodes() < Compile::current()&max_node_limit()) failed: Live Node limit exceeded limit	PSU
<a href="#">JDK-8215544</a>	11	SA: Modify ClhsdbLauncher to add sudo privileges to enable MacOS tests on Mach5	PSU
<a href="#">JDK-8214799</a>	11	Add package declaration to each JTREG test case in the gc folder	PSU
<a href="#">JDK-8214733</a>	17	runtime/8176717/TestInheritFD.java timed out	PSU
<a href="#">JDK-8214275</a>	11	CondyRepeatFailedResolution asserts "Dynamic constant has no fixed basic type"	PSU
<a href="#">JDK-8213440</a>	11	Lingering INCLUDE_ALL_GCS in test_oopStorage_parperf.cpp	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8212151</a>	11	jdi/ExclusiveBind.java times out due to "bind failed: Address already in use" on Solaris-X64	PSU
<a href="#">JDK-8211962</a>	11	Implicit narrowing in MacOSX java.desktop jsound	PSU
<a href="#">JDK-8211822</a>	11	Some tests fail after JDK-8210039	PSU
<a href="#">JDK-8210649</a>	11	AssertionError @ jdk.compiler/com.sun.tools.javac.comp.Modules.enter(Modules.java:244)	PSU
<a href="#">JDK-8210108</a>	11	sun/tools/jstatd test build failures after JDK-8210022	PSU
<a href="#">JDK-8209920</a>	11	runtime/logging/RedefineClasses.java fail with OOME with ZGC	PSU
<a href="#">JDK-8209883</a>	11	ZGC: Compile without C1 broken	PSU
<a href="#">JDK-8209776</a>	17, 11	Refactor jdk/security/JavaDotSecurity/ifdefs.sh to plain java test	PSU
<a href="#">JDK-8209150</a>	11	[TESTBUG] Add logging to verify JDK-8197901 to a different test	PSU
<a href="#">JDK-8208697</a>	11	vmTestbase/metaspacespace/stressHierarchy/stressHierarchy012/TestDescription.java fails with OutOfMemoryError: Metaspacespace	PSU
<a href="#">JDK-8208249</a>	11	TriggerUnloadingByFillingMetaspacespace generates garbage class names	PSU
<a href="#">JDK-8208246</a>	11	flags duplications in vmTestbase_vm_g1classunloading tests	PSU
<a href="#">JDK-8208207</a>	11	Test nsk/stress/jni/gclocker/gcl001 fails after co-location	PSU
<a href="#">JDK-8207779</a>	11	Method::is_valid_method() compares 'this' with NULL	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8207364</a>	11	nsk/jvmti/ResourceExhausted/resexhausted003 fails to start	PSU
<a href="#">JDK-8206330</a>	11	Revisit com/sun/jdi/RedefineCrossEvent.java	PSU
<a href="#">JDK-8206187</a>	17, 11	javax/management/remote/mandatory/connection/DefaultAgentFilterTest.java fails with Port already in use	PSU
<a href="#">JDK-8203239</a>	11	[TESTBUG] remove vmTestbase/vm/gc/kind/parOld test	PSU
<a href="#">JDK-8203238</a>	11	[TESTBUG] rewrite MemOptions shell test in Java	PSU
<a href="#">JDK-8202886</a>	11	[macos] Test java/awt/MenuBar/8007006/bug8007006.java fails on MacOS	PSU
<a href="#">JDK-8199874</a>	11	[TESTBUG] runtime/Thread/ThreadPriorities.java fails with "expected 0 to equal 10"	PSU
<a href="#">JDK-8194154</a>	8	System property user.dir should not be changed	PSU
<a href="#">JDK-8193682</a>	17, 15, 13, 11	Infinite loop in ZipOutputStream.close()	PSU
<a href="#">JDK-8192057</a>	11	com/sun/jdi/BadHandshakeTest.java fails with java.net.ConnectException	PSU
<a href="#">JDK-8190753</a>	8	(zipfs): Accessing a large entry (> 2^31 bytes) leads to a negative initial size for ByteArrayOutputStream	PSU
<a href="#">JDK-8181571</a>	17, 11	printing to CUPS fails on mac sandbox app	PSU
<a href="#">JDK-8172065</a>	15	javax/swing/JTree/4908142/bug4908142.java The selected index should be "aad"	PSU
<a href="#">JDK-8170530</a>	8	bash configure output contains a typo in a suggested library name	PSU
<a href="#">JDK-8170392</a>	8	JDK-8031567 broke builds from source bundles	PSU
<a href="#">JDK-8170385</a>	8	JDK-8031567 broke source bundles	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8169004</a>	11	Fix redundant @requires tags in tests	PSU
<a href="#">JDK-8168926</a>	8	C2: Bytecode escape analyzer crashes due to stack overflow	PSU
<a href="#">JDK-8166727</a>	11	javac crashed: [jimage.dll+0x1942] ImageStrings::find+0x28	PSU
<a href="#">JDK-8163498</a>	11	Many long-running security libs tests	PSU
<a href="#">JDK-8139173</a>	17, 11	[macosx] JInternalFrame shadow is not properly drawn	PSU
<a href="#">JDK-8139046</a>	11	Compiler Control: IGVPrintLevel directive should set PrintIdealGraph	PSU
<a href="#">JDK-8133713</a>	11	[macosx] Accessible JTables always reported as empty	PSU
<a href="#">JDK-8132256</a>	8	jaxp: Investigate removal of com/sun/org/apache/bcel/internal/util/ClassPath. java	PSU
<a href="#">JDK-8129572</a>	8	Cleanup usage of getResourceAsStream in jaxp	PSU
<a href="#">JDK-8076190</a>	8	Customizing the generation of a PKCS12 keystore	PSU
<a href="#">JDK-8031567</a>	8	Better model for storing source revision information	PSU
<a href="#">JDK-7124301</a>	11	[macosx] When in a tab group if you arrow between tabs there are no VoiceOver announcements.	PSU
<a href="#">JDK-7124293</a>	11	[macosx] VoiceOver reads percentages rather than the actual values for sliders.	PSU
<a href="#">JDK-8289907</a>	7	Add missed jdk/src/share part of 8087283	PSU
<a href="#">JDK-6986863</a>	11	ProfileDeferralMgr throwing ConcurrentModificationException	PSU
<a href="#">JDK-8287644</a>	18	[18u] Backport of JDK-8240903 causes test errors	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8287537</a>	8	8u JDK-8284620 backport broke AArch64 build	PSU
<a href="#">JDK-8287378</a>	18, 17, 11	GHA: Update cygwin to fix issues in langtools tests on Windows	PSU
<a href="#">JDK-8287362</a>	17, 11	FieldAccessWatch testcase failed on AIX platform	PSU
<a href="#">JDK-8287336</a>	18, 17	GHA: Workflows break on patch versions	PSU
<a href="#">JDK-8287202</a>	18	GHA: Add macOS aarch64 to the list of default platforms for workflow_dispatch event	PSU
<a href="#">JDK-8287162</a>	18, 17	(zipfs) Performance regression related to support for POSIX file permissions	PSU
<a href="#">JDK-8287109</a>	17, 15, 13, 11	Distrust.java failed with CertificateExpiredException	PSU
<a href="#">JDK-8286989</a>	8	Build failure on macOS after 8281814	PSU
<a href="#">JDK-8286855</a>	18, 17, 11	javac error on invalid jar should only print filename	PSU
<a href="#">JDK-8286630</a>	11	[11] avoid -std=c++11 CXX harfbuzz buildflag on Windows	PSU
<a href="#">JDK-8286601</a>	18, 17	Mac Aarch: Excessive warnings to be ignored for build jdk	PSU
<a href="#">JDK-8286594</a>	18, 17, 11	(zipfs) Mention paths with dot elements in ZipException and cleanups	PSU
<a href="#">JDK-8286444</a>	18, 17, 11	javac errors after JDK-8251329 are not helpful enough to find root cause	PSU
<a href="#">JDK-8286293</a>	17, 11	Tests ShortResponseBody and ShortResponseBodyWithRetry should use less resources	PSU
<a href="#">JDK-8286283</a>	18	assert(func2 == 0 && func3 == 0) failed: not unary	PSU
<a href="#">JDK-8286198</a>	18, 17, 11	[linux] Fix process-memory information	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8285445</a>	18, 17, 15, 13, 11, 8, 7	Cannot open file "NUL:"	PSU

## Azul Zulu Bug Fixes

The following table describes the OpenJFX changes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8283389</a>	18, 17, 15, 13, 11, 8	Update XML processing	CPU
<a href="#">JDK-8286317</a>	18, 17, 15, 13, 11, 8	Upgrade libxml2	CPU
<a href="#">JDK-8285691</a>	18, 17, 15, 13, 11, 8	Additional fix for JDK-8282121	CPU
<a href="#">JDK-8286324</a>	18, 17, 15, 13, 11, 8	Upgrade libxslt	CPU
<a href="#">JDK-8282121</a>	18, 17, 15, 13, 11, 8	Improve WebKit referencing	CPU
<a href="#">JDK-8286257</a>	18, 17, 8	Update libxslt to 1.1.35	CPU
<a href="#">JDK-8286256</a>	18, 17, 8	Update libxml2 to 2.9.14	CPU
<a href="#">JDK-8281159</a>	18, 17, 15, 13, 11, 8	Better JavaScript support	CPU
<a href="#">JDK-8284665</a>	18, 17, 15, 13, 11	First selected item of a TreeItem multiple selection gets removed if new items are constantly added to the TreeTableView	PSU
<a href="#">JDK-8284654</a>	18, 17, 15, 13, 11	Modal behavior returns to wrong stage	PSU
<a href="#">JDK-8284184</a>	18, 17, 15, 13, 11, 8	Crash in GraphicsContextJava::drawLinesForText on <a href="https://us.yahoo.com/">https://us.yahoo.com/</a>	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8283869</a>	18, 17, 15, 13, 11, 8	Update attribution in webkit.md file	PSU
<a href="#">JDK-8283786</a>	18, 17, 15, 13, 11	Update to Visual Studio 2022 version 17.1.0 on Windows	PSU
<a href="#">JDK-8283517</a>	18, 17, 15, 13, 11	Update boot JDK to 18	PSU
<a href="#">JDK-8283509</a>	18, 17, 15, 13, 11	Invisible menus can lead to IndexOutOfBoundsException	PSU
<a href="#">JDK-8283403</a>	18, 17, 15, 13, 11, 8	Update Glib to 2.72.0	PSU
<a href="#">JDK-8283318</a>	18, 17, 15, 13, 11	Videos with unusual sizes cannot be played on windows	PSU
<a href="#">JDK-8283218</a>	18, 17, 15, 13, 11, 8	Update GStreamer to 1.20.1	PSU
<a href="#">JDK-8282449</a>	18, 17, 15, 13, 11	Intermittent OOM error in PredefinedMeshManagerTest	PSU
<a href="#">JDK-8282054</a>	18, 17, 15, 13, 11, 8	Mediaplayer not working with HTTP Live Stream link with query parameter appended with file extension m3u8	PSU
<a href="#">JDK-8281723</a>	18, 17, 15, 13, 11	Spinner with split horizontal arrows and a border places right arrow incorrectly	PSU
<a href="#">JDK-8281564</a>	18, 17, 15, 13, 11, 8	Update cmake to 3.22.3	PSU
<a href="#">JDK-8280369</a>	18, 17, 15, 13, 11	native library cache should be platform/arch specific	PSU
<a href="#">JDK-8278430</a>	18, 17, 15, 13, 11	Several tests use terminally deprecated System.runFinalization method	PSU
<a href="#">JDK-8277756</a>	18, 17, 15, 13, 11	DatePicker listener might not be added when using second constructor	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8277734</a>	8	WebView: Update Public Suffix List to 3c213aa	PSU
<a href="#">JDK-8273998</a>	8	Clarify specification for Window properties controlled by the window manager	PSU
<a href="#">JDK-8273339</a>	18, 17, 15, 13, 11	IOOBE with ListChangeListener added to the selectedItems list of a TableView	PSU
<a href="#">JDK-8257895</a>	8	Allow building of JavaFX media libs for Apple Silicon	PSU
<a href="#">JDK-8251480</a>	18, 17, 15, 13, 11	TableColumnHeader: calc of cell width must respect row styling	PSU
<a href="#">JDK-8222211</a>	8	Creating animated gif image from non FX App thread causes exception	PSU
<a href="#">JDK-8205915</a>	8	[macOS] Accelerator assigned to button in dialog fires menuItem in owning stage	PSU
<a href="#">JDK-8203463</a>	8	[Accessibility, Narrator] NPE in TableView	PSU
<a href="#">JDK-8193442</a>	18, 17, 15, 13, 11	Removing TreeItem from a TreeTableView sometime changes selectedItem	PSU
<a href="#">JDK-8187596</a>	18, 17, 15, 13, 11	TreeView selection incorrectly changes after deleting an unselected row	PSU
<a href="#">JDK-8090477</a>	8	Customizable visibility timing for Tooltip	PSU
<a href="#">JDK-8286552</a>	18, 17, 15, 13, 11	TextFormatter: UpdateValue/UpdateText is called, when no ValueConverter is set	PSU
<a href="#">JDK-8088420</a>	18, 17, 15, 13, 11, 8	JavaFX WebView memory leak via EventListener	PSU
<a href="#">JDK-8286261</a>	18, 17, 15, 13, 11	Selection of non-expanded non-leaf treeItem grows unexpectedly when adding two-level descendants	PSU
<a href="#">JDK-8285725</a>	18, 17, 15, 13, 11	Wrong link to JBS in README.md	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8285534</a>	18, 17, 15, 13, 11	Update the 3D lighting test sample	PSU
<a href="#">JDK-8285360</a>	18, 17, 15, 13, 11	[TestBug] Cleanup a few ignored javafx.controls unit tests	PSU
<a href="#">JDK-8285217</a>	18, 17, 15, 13, 11	[Android] Window's screen is not updated after native screen was disposed	PSU
<a href="#">JDK-8285197</a>	18, 17, 15, 13, 11	TableColumnHeader: calc of cell width must respect row styling (TreeTableView)	PSU
<a href="#">JDK-8285034</a>	18, 17, 15, 13, 11	Skip ServiceTest.testManyServicesRunConcurrently on Windows	PSU

## Azul Zulu Bug Fixes

The following table describes the Azul Zulu bug fixes implemented in this release.

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-38287	8, 7, 6	freetype: disable SSE2 on Solaris	CPU
ZULU-37669	17, 15, 13, 11, 8, 7, 6	Zulu APK should provide everything as Alpine's OpenJDK	PSU
ZULU-37484	11	JFR should support u8 atomic on 32bit platforms	PSU
ZULU-35986	8	Update JFX to zulu8u332-b02	PSU
ZULU-35442	17, 15, 13, 11, 8, 7, 6	Some Zulu bundles have binaries stripped	PSU
ZULU-35141	8	Update OpenJSSE version to 1.1.10	PSU
ZULU-31592	11	[aarch32] build failure after jdk-11.0.14+4	PSU
ZULU-30533	11	[aarch32] Reenable detection of multiprocessor system	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-26842	11	Test gtest/GTestWrapper.java crashes with SIGSEGV	PSU
ZULU-23982	11	Module org.openjsse has not been granted logging permission	PSU
ZULU-22031	11	aarch32 c2 build failure afrrer zulu-11.47+11 merge	PSU
ZULU-21163	8	[JFR] Test jdk/jfr/event/profiling/TestFullStackTrace.java fail on macarm zulu8	PSU
ZULU-19798	11	New test compiler/intrinsics/Test8237524.java fails against Zulu 11 Arm32	PSU
ZULU-17141	11	Support W^X	PSU
ZULU-13290	11	New Zulu 11 test test/jdk/com/sun/jndi/ldap/LdapCBPropertiesTest.java fails	PSU
ZULU-11568	11	[ZE 11 TESTBUG] Test tools/doclint/tidy/InvalidEntity.java fails after merge	PSU
ZULU-7483	11	ZULU 11 Arm32 C1 crashes when running tests	PSU
ZULU-7471	11	Fix required for aarch32 after ZULU-6944/JDK-8229236	PSU
ZULU-6720	11	[REGRESSION] Nashorn test test/nashorn/script/nosecurity/logcoverage.js fails	PSU
ZULU-6566	17	Modules without classes can not be imported into jre image	PSU
ZULU-38404	8	Revert ZULU-37530: Reset launcher mode ...	PSU
ZULU-4803	11	[ZULU 8, 11 Arm32 C2] Jtreg hotspot tests compiler/c2/cr6340864 fail because of JDK-8213134	PSU

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