



## Azul Zulu builds of OpenJDK

October 2024 Quarterly Update

Release Notes

Revision 1.1

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## Revision History

Revision	Date	Description
0.1	October 15, 2024	Initial version of the document.
1.0	October 15, 2024	Added CVE info.
1.1	October 18, 2024	<ul style="list-style-type: none"> <li>• Added missing issues to the OpenJDK table.</li> <li>• Added TPL for BSD-2-Clause used in CRaC Warp.</li> <li>• Extended description of the FIPS changes.</li> </ul>

## Release Details

This release is the October 2024 quarterly update release for Azul Zulu Builds of OpenJDK version 23, 21, 17, 11, 8, 7, and 6.

The following table describes which Azul Zulu versions are published with this release.

Azul Zulu Version (*)	Update Type (**)	JDK Version	Based on		JavaFX Version
			Azul Zulu Version	JDK Version	
23.30.13 (CA) 23.30.14 (SA)	PSU	23.0.1+11	23.28	23.0.0+37	23.0.1+102
21.37.12 (SA)	CPU	21.0.4.0.101+1	21.36	21.0.4+7	22.0.2.0.101+101
21.38.21 (CA) 21.38.22 (SA)	PSU	21.0.5+11	21.37	21.0.4.0.101+1	22.0.2+101
17.53.12 (SA)	CPU	17.0.12.0.101+1	17.52	17.0.12+7	22.0.2.0.101+101
17.54.21 (CA) 17.54.22 (SA)	PSU	17.0.13+11	17.53	17.0.12.0.101+1	22.0.3+102
11.75.12 (SA)	CPU	11.0.24.0.101+1	11.74	11.0.24+8	19.0.8.0.101+101

11.76.21 (CA) 11.76.22 (SA)	PSU	11.0.25+9	11.75	11.0.24.0.101+1	19.0.9+101
8.81.0.12 (SA)	CPU	8u431-b01	8.80	8u422-b05	8u431-b02
8.82.0.21 (CA) 8.82.0.22 (SA)	PSU	8u432-b06	8.81	8u431-b01	8u432-b02
7.73.0.14 (SA)	CPU	7u441-b02	7.71	7u431-b04	N/A
6.67.0.12 (SA)	CPU	6b167	6.65	6b165	N/A

(\*) Azul provides two 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 doesn't have to include specific licenses and that such use doesn't contaminate the code or intellectual property of such software with any license requirements.
- **CA** are Azul Zulu Builds of OpenJDK that are free to download and use.

#### NOTE

Both SA and CA distributions may contain Early Access builds noted with `-ea-` in their filename. Early Access builds may not be TCK certified.

(\*\*) 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 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 and CA distributions.

# What's New

## Support for FIPS 140-3 compliance with BouncyCastle 2.0

Federal Information Processing Standards (FIPS) are publicly announced standards developed by the United States federal government for use by all non-military government agencies and by government contractors. Special builds of Azul Zulu (only for Java 8) are available with integrated FIPS functionality. Today's implementation of FIPS is based on Bouncy Castle 1.0.2.3. Because of [the expiration of the FIPS 140-2 certification for Bouncy Castle 1.X](#), and additional functionality provided in newer versions of Bouncy Castle, Azul will integrate version 2.0.0 which has the latest set of features included and is FIPS 140-3 certified.

**NOTE** | If you don't use the FIPS functionality, this change will not impact you.

The migration from Bouncy Castle 1.x to 2.0 is a breaking change, which will be rolled out gradually. So with this message, we announce these changes so that you have time to prepare for them.

If you need to test the EA version of Azul Zulu with FIPS 140-3 compliant implementation, please contact [support@azul.com](mailto:support@azul.com).

If you want to use Azul Zulu Builds of OpenJDK bundled with FIPS support, please contact your support or sales contact.

The following breaking changes will be introduced with BouncyCastle 2.0:

- The SHA-1 algorithm is fully disabled and cannot be used by the application or internally by the FIPS provider itself.
- The MD5 digest algorithm is disabled by default, but can be enabled with the `org.bouncycastle.jsse.enable_md5=true` system option.
- DES-EDE: encryption is disabled, but decryption is still enabled.
- RSA PKCS#1.5: encryption is disabled, but decryption is still enabled.

- Zulu 8 in FIPS compliance mode uses the BCJSSE provider for TLS connections. The application can experience some behavior differences caused by the difference in the TLS implementation:
  - All RSA KeyExchange cipher suites are disabled by default, but they can be enabled with the `org.bouncycastle.jsse.fips.allowRSAKeyExchange=true` system option.
  - TLS renegotiation is disabled by default, but can be enabled with the `org.bouncycastle.jsse.client.acceptRenegotiation=true` system option.

In the January 2025 CPU/PSU Release, the FIPS-enabled builds of Zulu will have Bouncy Castle 2.0 instead of 1.X.

## Changes in System Properties

This release includes the following new or changed system properties.

### New in java.net

A new system property `jdk.http.maxHeaderSize` is added to define the maximum header field section size that a client is prepared to accept. This value gets computed as the sum of:

- The size of the uncompressed header name.
- The size of the uncompressed header value.
- An overhead of 32 bytes for each field section line.

If a peer sends a field section that exceeds maximum defined header size, a `java.net.ProtocolException` is raised. This applies to all versions of the HTTP protocol. A value of zero or a negative value means no limit. If left unspecified, the default value is `393216` bytes.

Affected releases: Zulu 6 till 23.

## Change in javax.naming

The default value of `com.sun.jndi.ldap.object.trustSerialData` is changed to `false`. This prevents the deserialization of Java objects from the `javaSerializedData` and the `javaRemoteLocation` LDAP attributes.

Additionally, the scope of this system property is extended to cover the creation of RMI remote objects from the `javaRemoteLocation` LDAP attribute.

Affected releases: Zulu 6 till 17.

## Change in java.security

The `java.security.manager` system property now supports `allow` and `disallow`, as described in [JDK-8301251](#). Prior to this change, on JDK versions earlier than JDK 12, if these options are specified, the runtime attempts to load a SecurityManager implementation with the classname `allow` or `disallow`, which results in an Error and the application preventing to start up. To solve this, if the `java.security.manager` system property is set to `allow` or `disallow` on the Java command line, it is silently ignored. With this change, you can use the same command line across multiple versions of the JDK.

Affected releases: Zulu 8 and 11.

## CRaC in User-Space (Non-Privileged) Mode

Zulu with CRaC has been extended with an extra engine which no longer needs root privileges. The initial implementation which is available since May 2023, requires root privileges for checkpoint operation, as it requires operation at the process level. This makes it harder to use CRaC in containers and to some cloud environments.

See [CRaC Engines](#) for more information on how to use this new engine.

## FTP Changes for Customer CPU Builds

Customers can get Zulu Builds from an FTP server. To make it easier to find CPU builds, a new directory on the FTP server has been created, without introducing breaking

changes to your existing automation tools.

The structure is now:

- Existing folders are unchanged, e.g. `ZuluCatalog/Zulu8/8.45`.
- A new directory is added for CPU builds, e.g. `ZuluCPUCatalog/Zulu8/8.45`.

## Upcoming Changes

### Certificate Changes

In the next release (January 2025), Azul Zulu Builds will no longer provide Mozilla certificates in the collection of trusted root certificates from various Certificate Authorities (CAs). The OpenJDK CA root certificates will be used in Azul Zulu for all Java versions, including 6 and 7.

### Toolchain Changes for macOS

In the next release (January 2025), the toolchain for building Azul Zulu 7 on macOS x86\_64 will be upgraded from Xcode 11.3.1 to Xcode 12.3.

### JavaFX Support Changes

Starting from the next release (January 2025), JavaFX support for Linux distributions will be limited to the vendor-supported versions:

- RHEL, CentOS, and Alma Linux: 8, 9
- Ubuntu: 20.04, 22.04, 24.04
- Debian: 11, 12

Please notice, there are no 32-bit versions of these operating systems, so we are not able to provide JavaFX updates for Linux x86-32.

#### NOTE

While Azul Zulu Builds of OpenJDK With JavaFX may not be available for certain platforms, Zulu without JavaFX is available for more platforms. See [Supported Platforms](#).





## Supported Platforms

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




































### Azul Zulu Builds of OpenJDK Without and With OpenJFX

Some versions of Azul Zulu are available in different packages for specific platforms, as indicated in this overview table with:

-  : Build of OpenJDK without OpenJFX.
-  : Build of OpenJDK without and with OpenJFX.

#### NOTE

The list of supported configurations and platform includes, but is not limited to, the table below. Don't hesitate to [contact Support](#) if you have issues with Azul Zulu Builds of OpenJDK on any other platform or configuration.

Operating System	Azul Zulu Version						
	6	7	8	11	17	21	23
Windows (x86 32/64-bit)							
Windows Server 2022						 [1]	 [1]
Windows Server 2019						 [1]	 [1]
Windows Server 2016						 [1]	 [1]
Windows 11						 [1]	 [1]
Windows 10						 [1]	 [1]
Windows (ARM 64-bit)							

Windows 11	n/a	n/a	n/a	n/a	✓	✓	n/a
Linux (x86 32/64-bit)							
RHEL 9.x	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
RHEL 8.x	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
RHEL 7.x	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓ [1]
SLES 15	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
SLES 12	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓ [1]
CentOS Stream	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Ubuntu 24.04	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Ubuntu 22.04	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Ubuntu 20.04	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Ubuntu 18.04	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓ [1]
Debian 12	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Debian 11	✓	✓	✓✓	✓✓	✓✓	✓✓ [1]	✓✓ [1]
Wind River 8.x	n/a	✓	✓	n/a	n/a	n/a	n/a
CoreOS	n/a	✓	✓	✓	✓	n/a	n/a
Alpine Linux 3.11 or later	n/a	n/a	✓	✓	✓	✓	✓ [1]

Amazon Linux 2023	n/a	n/a	✓	✓	✓	✓	✓	[1]
Linux (ARM 64-bit)								
Ubuntu 24.04	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Ubuntu 22.04	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Ubuntu 20.04	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Ubuntu 18.04	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓
Debian 12	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Debian 11	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Alpine Linux 3.11 or later	n/a	n/a	✓	✓	✓	✓	✓	✓
Amazon Linux 2023	n/a	n/a	✓	✓	✓	✓	✓	✓
Linux with kernel 3.10.x and glibc 2.23 [2] [3]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Linux (ARM 32-bit Hard-Float)								
Ubuntu 18.04 [4]	n/a	n/a	✓	✓	✓	n/a	n/a	n/a
Raspbian 10 Buster [4]	n/a	n/a	✓	✓	✓	n/a	n/a	n/a
Raspbian 9 Stretch [4]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Linux with kernel 3.10.x and glibc 2.9 [4] [5]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Linux (ARM 32-bit Soft-Float) [6]								
Linux with kernel 2.6.34 and glibc 2.5 [7]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Debian 7 Wheezy [8]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Linux with kernel 3.10.x and glibc 2.9 [8]	n/a	n/a	✓	✓	n/a	n/a	n/a	n/a
Linux (MIPS 32-bit) [9]								

Linux with kernel 4.9.59 and glibc 2.9 [10]	n/a	n/a	✓	n/a	n/a	n/a	n/a
Linux (ppc64 Big Endian)							
Linux with kernel 3.8.13 and glibc 2.22 [11]	n/a	n/a	✓	n/a	n/a	n/a	n/a
Linux (ppc32 Hard-float and SPE)							
Linux with kernel 3.12.37 and glibc 2.20 [12]	n/a	n/a	✓	n/a	n/a	n/a	n/a
QNX							
QNX 7.0 ARMv7 32-bit Hard-Float ABI	n/a	n/a	✓	n/a	n/a	n/a	n/a
QNX 7.1 ARMv8 32-bit Hard-Float ABI	n/a	n/a	✓	n/a	n/a	n/a	n/a
MacOS (x86 64-bit)							
macOS 12+	n/a	✓	✓✓	✓✓	✓✓	✓✓	✓✓
MacOS (Apple Silicon)							
macOS 12+	n/a	n/a	✓✓	✓✓	✓✓	✓✓	✓✓
Solaris (x86 and Sparc)							
Solaris 11	n/a	✓	✓	✓	n/a	n/a	n/a
Solaris 10	n/a	✓	✓	n/a	n/a	n/a	n/a

1. Build of OpenJDK (with and without OpenJFX) only for 64-bit.
2. Bundles with the Checkpoint/Restore (with the `criu` suffix) functionality require kernel 4.4.0+.
3. Bundles compiled with GCC 9 (with the `gcc9` suffix) require glibc 2.29.
4. 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.
5. Bundles with the CRaM (with the `cr` suffix) functionality require glibc 2.13.
6. 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.

7. Bundles with the C1 compiler. Tested on ARMv5 hardware.

8. Bundles with the C1 compiler were tested on ARMv6 and ARMv7 hardware. Bundles with both C1 and C2 compilers were tested on ARMv7 hardware.

9. MIPS32r2 ISA, Big Endian, FPU in 32-bit mode or equivalent emulation.

10. Linux soft-float O32 MIPS ABI



11. Bundles for this platform were tested on QorIQ® T4240-RDB.






















12. Hard-Float EABI bundles were tested on QorIQ® T1024RDB. SPE ABI bundles were tested on NXP® P2020RDB.

## Azul Zulu Builds of OpenJDK With CRaC

### NOTE

Currently, CRaC is only available for the specified Linux systems, in the versions listed below of Azul Zulu Builds of OpenJDK. For development, you can use the CRaC Java library on any platform and simulate the CRaC functionality.

-  : Build of OpenJDK with full CRaC support.
-  : Build of OpenJDK with CRaC support for development purposes. These provide a simulated checkpoint/restore mechanism to be used for development and testing.

Operating System	Azul Zulu Version					
	17		21		23	
	x86 64-bit	ARM 64-bit	x86 64-bit	ARM 64-bit	x86 64-bit	ARM 64-bit
Linux						
Alpine Linux 3.11+						
Windows		n/a		n/a		n/a
macOS						

# IANA Time Zone Data Version

This release of Azul Zulu comes with IANA Time Zone Database version **2024a**.

## Known Issue

## 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-2023-42950</a>	JavaFX (WebKitGTK)	Multiple	Yes	7.5	Network	High	None	Required	Unchanged	High	High	High	23, 21, 17, 11, 8	Note 1
<a href="#">CVE-2024-25062</a>	JavaFX (libxml2)	Multiple	Yes	7.5	Network	Low	None	None	Unchanged	None	None	High	23, 21, 17, 11, 8	Note 1
<a href="#">CVE-2024-21235</a>	Hotspot	Multiple	Yes	4.8	Network	High	None	None	Unchanged	Low	Low	None	23, 21, 17, 11, 8, 7, 6	Note 2
<a href="#">CVE-2024-21208</a>	Networking	Multiple	Yes	3.7	Network	High	None	None	Unchanged	None	None	Low	23, 21, 17, 11, 8, 7, 6	Note 1
<a href="#">CVE-2024-21210</a>	Hotspot	Multiple	Yes	3.7	Network	High	None	None	Unchanged	None	Low	None	23, 21, 17, 11, 8, 7, 6	Note 2
<a href="#">CVE-2024-21217</a>	Serialization	Multiple	Yes	3.7	Network	High	None	None	Unchanged	None	None	Low	23, 21, 17, 11, 8, 7, 6	Note 2
<a href="#">CVE-2024-36138</a>	Oracle GraalVM for JDK: Node (Node.js)	Multiple	Yes	8.1	Network	High	None	None	Unchanged	High	High	High	None	
<a href="#">CVE-2024-21211</a>	Oracle Java SE, Oracle GraalVM for JDK, Oracle GraalVM Enterprise Edition: Compiler	Multiple	Yes	3.7	Network	High	None	None	Unchanged	None	Low	None	None	Note 2

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 rely on the Java sandbox for security. This vulnerability does not apply to Java deployments, typically in servers, that load and run only trusted code (e.g., code installed by an administrator).
2	This vulnerability can be exploited by using APIs in the specified Component, e.g., through a web service which supplies data to the APIs. This vulnerability also applies to Java deployments, that load and run untrusted code (e.g., code that comes from the internet) and rely on the Java sandbox for security.



## 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-8307383</a>	11, 17, 21, 23	Enhance DTLS connections	CPU,PSU
<a href="#">JDK-8307769</a>	6, 7, 8, 11, 17, 21	Improve Exception support	CPU,PSU
<a href="#">JDK-8311208</a>	17, 21, 23	Improve CDS Support	CPU,PSU
<a href="#">JDK-8328726</a>	6, 7, 8, 11, 17, 21, 23	Better Kerberos support	CPU,PSU
<a href="#">JDK-8330282</a>	8, 11, 17, 21, 23	Upgrade SQLite	CPU,PSU
<a href="#">JDK-8332643</a>	6, 7, 8, 11, 17	Better Location requests	CPU,PSU
<a href="#">JDK-8335713</a>	6, 7, 8, 11, 17, 21, 23	Enhance vectorization analysis	CPU,PSU

## OpenJDK Fixes and Enhancements

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

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8179502</a>	17	Enhance OCSP, CRL and Certificate Fetch Timeouts	CPU,PSU
<a href="#">JDK-8189131</a>	7	Open-source the Oracle JDK Root Certificates	CPU,PSU
<a href="#">JDK-8189949</a>	7	Remove Baltimore Cybertrust Code Signing CA	CPU,PSU
<a href="#">JDK-8191031</a>	7	Remove several Symantec Root CAs	CPU,PSU
<a href="#">JDK-8191844</a>	7	Remove SECOM root (secomevrootca1)	CPU,PSU
<a href="#">JDK-8195774</a>	7	Add Entrust root certificates	CPU,PSU
<a href="#">JDK-8195793</a>	7	Remove GTE CyberTrust Global Root	CPU,PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8196141</a>	7	Add GoDaddy root certificates	CPU,PSU
<a href="#">JDK-8199779</a>	7	Add T-Systems, GlobalSign and Starfield services root certificates	CPU,PSU
<a href="#">JDK-8204923</a>	7	Restore Symantec root verisignclass2g2ca	CPU,PSU
<a href="#">JDK-8209506</a>	7	Add Google Trust Services GlobalSign root certificates	CPU,PSU
<a href="#">JDK-8210432</a>	7	Add additional TeliaSonera root certificate	CPU,PSU
<a href="#">JDK-8216577</a>	7	Add GlobalSign's R6 Root certificate	CPU,PSU
<a href="#">JDK-8222136</a>	7	Remove two Comodo root CA certificates that are expiring	CPU,PSU
<a href="#">JDK-8222137</a>	7	Remove T-Systems root CA certificate	CPU,PSU
<a href="#">JDK-8223499</a>	7	Remove two DocuSign root certificates that are expiring	CPU,PSU
<a href="#">JDK-8223555</a>	7	Cleanups in cacerts tests	CPU,PSU
<a href="#">JDK-8224768</a>	7	Test ActalisCA.java fails	CPU,PSU
<a href="#">JDK-8225068</a>	7	Remove DocuSign root certificate that is expiring in May 2020	CPU,PSU
<a href="#">JDK-8225069</a>	7	Remove Comodo root certificate that is expiring in May 2020	CPU,PSU
<a href="#">JDK-8225072</a>	7	Add LuxTrust certificate that is expiring in March 2021 to list of allowed but expired certs	CPU,PSU
<a href="#">JDK-8225081</a>	7	Remove Telia Company CA certificate expiring in April 2021	CPU,PSU
<a href="#">JDK-8225082</a>	7	Remove IdenTrust certificate that is expiring in September 2021	CPU,PSU
<a href="#">JDK-8225083</a>	7	Remove Google certificate that is expiring in December 2021	CPU,PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8225128</a>	7	Add exception for expiring DocuSign root to VerifyCACerts test	CPU,PSU
<a href="#">JDK-8225130</a>	7	Add exception for expiring Comodo roots to VerifyCACerts test	CPU,PSU
<a href="#">JDK-8232019</a>	7	Add LuxTrust certificate updates to the existing root program	CPU,PSU
<a href="#">JDK-8233223</a>	7	Add Amazon Root CA certificates	CPU,PSU
<a href="#">JDK-8233364</a>	6, 7, 8	Fix undefined behavior in Canonicalizer::do_ShiftOp	CPU,PSU
<a href="#">JDK-8234245</a>	7	sun/security/lib/cacerts/VerifyCACerts.java fails due to wrong checksum	CPU,PSU
<a href="#">JDK-8239105</a>	7	Add exception for expiring Digicert root certificates to VerifyCACerts test	CPU,PSU
<a href="#">JDK-8242999</a>	11	HTTP/2 client may not handle CONTINUATION frames correctly	CPU,PSU
<a href="#">JDK-8243320</a>	7	Add SSL root certificates to Oracle Root CA program	CPU,PSU
<a href="#">JDK-8243321</a>	7	Add Entrust root CA - G4 to Oracle Root CA program	CPU,PSU
<a href="#">JDK-8243559</a>	7	Remove root certificates with 1024-bit keys	CPU,PSU
<a href="#">JDK-8245654</a>	7	Add Certigna Root CA	CPU,PSU
<a href="#">JDK-8256421</a>	7	Add 2 HARICA roots to cacerts truststore	CPU,PSU
<a href="#">JDK-8258630</a>	7	Add expiry exception for QuoVadis root certificate	CPU,PSU
<a href="#">JDK-8259312</a>	7	VerifyCACerts.java fails as soneraclass2ca cert will expire in 90 days	CPU,PSU
<a href="#">JDK-8259338</a>	7	Add expiry exception for identrustdstx3 alias to VerifyCACerts.java test	CPU,PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8268678</a>	7	LetsEncryptCA.java test fails as Let's Encrypt Authority X3 is retired	CPU,PSU
<a href="#">JDK-8268916</a>	7	Tests for AffirmTrust roots	CPU,PSU
<a href="#">JDK-8270280</a>	7	security/infra/java/security/cert/CertPathValidator/certification/LetsEncryptCA.java OCSP response error	CPU,PSU
<a href="#">JDK-8272708</a>	7	[Test]: Cleanup: test/jdk/security/infra/java/security/cert/CertPathValidator/certification/BypassCA.java no longer needs ocspEnabled	CPU,PSU
<a href="#">JDK-8277488</a>	7	Add expiry exception for Digicert (geotrustglobalca) expiring in May 2022	CPU,PSU
<a href="#">JDK-8288132</a>	7	Update test artifacts in QuoVadis CA interop tests	CPU,PSU
<a href="#">JDK-8290367</a>	6, 7, 8, 11, 17	Update default value and extend the scope of com.sun.jndi.ldap.object.trustSerialData system property	CPU,PSU
<a href="#">JDK-8292044</a>	11, 17	HttpClient doesn't handle 102 or 103 properly	CPU,PSU
<a href="#">JDK-8295894</a>	7	Remove SECOM certificate that is expiring in September 2023	CPU,PSU
<a href="#">JDK-8296410</a>	11, 17	HttpClient throws java.io.IOException: no statuscode in response for HTTP2	CPU,PSU
<a href="#">JDK-8297955</a>	7	LDAP CertStore should use LdapName and not String for DN's	CPU,PSU
<a href="#">JDK-8299234</a>	17	JMX Repository.query performance	CPU,PSU
<a href="#">JDK-8304760</a>	7	Add 2 Microsoft TLS roots	CPU,PSU
<a href="#">JDK-8305975</a>	7	Add TWCA Global Root CA	CPU,PSU
<a href="#">JDK-8307134</a>	7	Add GTS root CAs	CPU,PSU
<a href="#">JDK-8308592</a>	7	Framework for CA interoperability testing	CPU,PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8312126</a>	7	NullPointerException in CertStore.getCRLs after 8297955	CPU,PSU
<a href="#">JDK-8313626</a>	6, 7, 8	C2 crash due to unexpected exception control flow	CPU,PSU
<a href="#">JDK-8314960</a>	7	Add Certigna Root CA - 2	CPU,PSU
<a href="#">JDK-8316138</a>	7	Add GlobalSign 2 TLS root certificates	CPU,PSU
<a href="#">JDK-8317373</a>	7	Add Telia Root CA v2	CPU,PSU
<a href="#">JDK-8317374</a>	7	Add Let's Encrypt ISRG Root X2	CPU,PSU
<a href="#">JDK-8318759</a>	7	Add four DigiCert root certificates	CPU,PSU
<a href="#">JDK-8319187</a>	7	Add three eMudhra emSign roots	CPU,PSU
<a href="#">JDK-8321408</a>	7	Add Certainly roots R1 and E1	CPU,PSU
<a href="#">JDK-8328825</a>	7	Google CAInterop test failures	CPU,PSU
<a href="#">JDK-8333724</a>	7, 8, 11, 17, 21	Problem list security/infra/java/security/cert/CertPathValidator/certification/CAInterop.java#teliasonerarootcav1	CPU,PSU
<a href="#">JDK-4660158</a>	8	TTY: NumberFormatException while trying to set values by 'set' command	PSU
<a href="#">JDK-6355567</a>	21	AdobeMarkerSegment causes failure to read valid JPEG	PSU
<a href="#">JDK-6544871</a>	8	java/awt/event/KeyEvent/KeyTyped/CtrlASCII.html fails from jdk b09 on windows.	PSU
<a href="#">JDK-6967482</a>	21, 23	TAB-key does not work in JTables after selecting details-view in JFileChooser	PSU
<a href="#">JDK-7022325</a>	17, 21	TEST_BUG: test/java/util/zip/ZipFile/ReadLongZipFileName.java leaks files if it fails	PSU
<a href="#">JDK-7026262</a>	17	HttpServer: improve handling of finished HTTP exchanges	PSU

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<a href="#">JDK-7124313</a>	11, 17	[macosx] Swing Popups should overlap taskbar	PSU
<a href="#">JDK-7156347</a>	11	javax/swing/JList/6462008/bug6462008.java fails	PSU
<a href="#">JDK-7188098</a>	8	TEST_BUG: closed/javax/sound/midi/Synthesizer/Receiver/bug6186488.java fails	PSU
<a href="#">JDK-8005885</a>	17	enhance PrintCodeCache to print more data	PSU
<a href="#">JDK-8021775</a>	8	compiler/8009761/Test8009761.java "Failed: init recursive calls: 51. After deopt 50"	PSU
<a href="#">JDK-8030204</a>	8	com/sun/jdi/JdbExprTest.sh: Required output "Can\\t convert 2147483648 to int" not found	PSU
<a href="#">JDK-8030795</a>	8	java/nio/file/Files/probeContentType/ForceLoad.java failing with ServiceConfigurationError without jtreg -agentvm option	PSU
<a href="#">JDK-8035395</a>	8	sun/management/jmxremote/startstop/JMXStartStopTest.java fails intermittently: Port already in use	PSU
<a href="#">JDK-8051959</a>	17, 21	Add thread and timestamp options to java.security.debug system property	PSU
<a href="#">JDK-8073061</a>	21	(fs) Files.copy(foo, bar, REPLACE_EXISTING) deletes bar even if foo is not readable	PSU
<a href="#">JDK-8078725</a>	11	method adjustments can be done just once for all classes involved into redefinition	PSU
<a href="#">JDK-8145919</a>	8	sun/management/jmxremote/bootstrap/RmiSslBootstrapTest failed with Connection failed for no credentials	PSU
<a href="#">JDK-8152207</a>	8	Perform array bound checks while getting a length of bytecode instructions	PSU
<a href="#">JDK-8166352</a>	21, 23	FilePane.createDetailsView() removes JTable TAB, SHIFT-TAB functionality	PSU

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<a href="#">JDK-8170817</a>	17, 21	G1: Returning MinTLABSize from unsafe_max_tlab_alloc causes TLAB flapping	PSU
<a href="#">JDK-8183227</a>	17	read/write APIs in class os shall return ssize_t	PSU
<a href="#">JDK-8193547</a>	17	Regression automated test '/open/test/jdk/java/awt/Toolkit/DesktopProperties/rfe4758438.java' fails	PSU
<a href="#">JDK-8193682</a>	8	Infinite loop in ZipOutputStream.close()	PSU
<a href="#">JDK-8196770</a>	8	Add JNDI test com/sun/jndi/ldap/blits/AddTests/AddNewEntry.java	PSU
<a href="#">JDK-8205076</a>	11	[17u] Inet6AddressImpl.c: <code>lookupIfLocalHost</code> accesses <code>int</code> <code>InetAddress.preferIPv6Address</code> as a boolean	PSU
<a href="#">JDK-8206440</a>	11	Remove javac -source/-target 6 from jdk regression tests	PSU
<a href="#">JDK-8210338</a>	11	Better output for GenerationTests.java	PSU
<a href="#">JDK-8211847</a>	21	[aix] java/lang/ProcessHandle/InfoTest.java fails: "reported cputime less than expected"	PSU
<a href="#">JDK-8211854</a>	21	[aix] java/net/ServerSocket/AcceptInheritHandle.java fails: read times out	PSU
<a href="#">JDK-8211920</a>	11	Close server socket and cleanups in test/jdk/javax/naming/module/RunBasic.java	PSU
<a href="#">JDK-8221903</a>	8	PIT: javax/swing/RepaintManager/IconifyTest/IconifyTest.java fails on ubuntu18.04	PSU
<a href="#">JDK-8222005</a>	11	ClassRedefinition crashes with: guarantee(false) failed: OLD and/or OBSOLETE method(s) found	PSU


OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8222884</a>	11, 17, 21	ConcurrentClassDescLookup.java times out intermittently	PSU
<a href="#">JDK-8224081</a>	11	SOCKS v4 tests require IPv4	PSU
<a href="#">JDK-8227122</a>	11	[TESTBUG] Create Docker sidecar test cases	PSU
<a href="#">JDK-8228856</a>	21	jvm_attach_thread_func() is broken if Control Flow Guard is enabled	PSU
<a href="#">JDK-8229822</a>	11	ThrowingPushPromises tests sometimes fail due to EOF	PSU
<a href="#">JDK-8231427</a>	11	Warning cleanup in tests of java.io.Serializable	PSU
<a href="#">JDK-8233725</a>	17	ProcessTools.startProcess() has output issues when using an OutputAnalyzer at the same time	PSU
<a href="#">JDK-8236917</a>	11	TestInstanceKlassSize.java fails with "The size computed by SA for java.lang.Object does not match"	PSU
<a href="#">JDK-8238169</a>	11, 17, 21	BasicDirectoryModel getDirectories and DoChangeContents.run can deadlock	PSU
<a href="#">JDK-8238274</a>	8	(sctp) JDK-7118373 is not fixed for SctpChannel	PSU
<a href="#">JDK-8240226</a>	11	DeflateIn_InflateOut.java test incorrectly assumes size of compressed file	PSU
<a href="#">JDK-8241550</a>	17, 21	[macOS] SSLSocketImpl/ReuseAddr.java failed due to "BindException: Address already in use"	PSU
<a href="#">JDK-8242564</a>	21	javadoc crashes:: class cast exception com.sun.tools.javac.code.Symtab\$6	PSU
<a href="#">JDK-8249097</a>	11	test/lib/jdk/test/lib/util/JarBuilder.java has a bad copyright	PSU
<a href="#">JDK-8249772</a>	11	(ch) Improve sun/nio/ch/TestMaxCachedBufferSize.java	PSU



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<a href="#">JDK-8249826</a>	11	5 javax/net/ssl/SSLEngine tests use @ignore w/o bug-id	PSU
<a href="#">JDK-8251188</a>	8, 11	Update LDAP tests not to use wildcard addresses	PSU
<a href="#">JDK-8253207</a>	11	enable problemlists jcheck's check	PSU
<a href="#">JDK-8255898</a>	11, 17	Test java/awt/FileDialog/FilenameFilterTest/FilenameFilterTest.java fails on Mac OS	PSU
<a href="#">JDK-8255913</a>	11	Decrease number of iterations in TestMaxCachedBufferSize	PSU
<a href="#">JDK-8255969</a>	11	Improve java/io/BufferedInputStream/LargeCopyWithMark.java using jtreg tags	PSU
<a href="#">JDK-8256291</a>	17	RunThese30M fails "assert(!_class_unload ? true : (JfrTraceIdBits::load(class_loader_klass & 1 << 4) << 8 != 0))) failed: invariant"	PSU
<a href="#">JDK-8257540</a>	17	javax/swing/JFileChooser/8041694/bug8041694.java failed with "RuntimeException: The selected directory name is not the expected 'd ' but 'D '."	PSU
<a href="#">JDK-8259274</a>	11	Increase timeout duration in sun/nio/ch/TestMaxCachedBufferSize.java	PSU
<a href="#">JDK-8259866</a>	17	two java.util tests failed with "IOException: There is not enough space on the disk"	PSU
<a href="#">JDK-8260633</a>	11, 17, 21	[macos] java/awt/dnd/MouseEventAfterStartDragTest/MouseEventAfterStartDragTest.html test failed	PSU
<a href="#">JDK-8261433</a>	11, 17, 21	Better pkcs11 performance for libpkcs11:C_EncryptInit/libpkcs11:C_DecryptInit	PSU
<a href="#">JDK-8262017</a>	8	C2: assert(n != __null) failed: Bad immediate dominator info.	PSU

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<a href="#">JDK-8263031</a>	11, 17	HttpClient throws Exception if it receives a Push Promise that is too large	PSU
<a href="#">JDK-8264328</a>	8	Broken license in javax/swing/JComboBox/8072767/bug8072767.java	PSU
<a href="#">JDK-8265919</a>	17	RunThese30M fails "assert !((((JfrTraceIdBits::load(value & 1 << 4) << 8 != 0)))) failed: invariant"	PSU
<a href="#">JDK-8266149</a>	11	mark hotspot compiler/startup tests which ignore VM flags	PSU
<a href="#">JDK-8266150</a>	11	mark hotspot compiler/arguments tests which ignore VM flags	PSU
<a href="#">JDK-8266153</a>	11	mark hotspot compiler/onSpinWait tests which ignore VM flags	PSU
<a href="#">JDK-8266154</a>	11	mark hotspot compiler/oracle tests which ignore VM flags	PSU
<a href="#">JDK-8266248</a>	8	Compilation failure in PLATFORM_API_MacOSX_MidiUtils.c with Xcode 12.5	PSU
<a href="#">JDK-8268906</a>	11	gc/g1/mixedgc/TestOldGenCollectionUsage.java assumes that GCs take 1ms minimum	PSU
<a href="#">JDK-8269428</a>	11, 17, 21	java/util/concurrent/ConcurrentHashMap/ToArray.java timed out	PSU
<a href="#">JDK-8269616</a>	11	serviceability/dcmd/framework/VMVersionTest.java fails with Address already in use error	PSU
<a href="#">JDK-8269657</a>	17, 21	Test java/nio/channels/DatagramChannel/Loopback.java failed: Unexpected message	PSU

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<a href="#">JDK-8272232</a>	17	javax/swing/JTable/4275046/bug4275046.java failed with "Expected value in the cell: 'rededited' but found 'redEDITED'."	PSU
<a href="#">JDK-8272558</a>	17	IR Test Framework README misses some flags	PSU
<a href="#">JDK-8272777</a>	17	Clean up remaining AccessController warnings in test library	PSU
<a href="#">JDK-8273135</a>	11	java/awt/color/ICC_ColorSpace/MTTransformReplacedProfile.java crashes in liblcms.dylib with NULLSeek+0x7	PSU
<a href="#">JDK-8273216</a>	17	JCMD does not work across container boundaries with Podman	PSU
<a href="#">JDK-8273430</a>	17	Suspicious duplicate condition in java.util.regex.Grapheme#isExcludedSpacingMark	PSU
<a href="#">JDK-8273541</a>	17	Cleaner Thread creates with normal priority instead of MAX_PRIORITY - 2	PSU
<a href="#">JDK-8275851</a>	11, 17	Deproblemlist open/test/jdk/javax/swing/JComponent/6683775/bug6683775.java	PSU
<a href="#">JDK-8276036</a>	11	The value of full_count in the message of insufficient codecache is wrong	PSU
<a href="#">JDK-8276306</a>	11	jdk/jshell/CustomInputToolBuilder.java fails intermittently on storage acquisition	PSU
<a href="#">JDK-8276660</a>	17	Scalability bottleneck in java.security.Provider.getService()	PSU
<a href="#">JDK-8276819</a>	11	javax/print/PrintServiceLookup/FlushCustomClassLoader.java fails to free	PSU
<a href="#">JDK-8277042</a>	17	add test for 8276036 to compiler/codecache	PSU
<a href="#">JDK-8278794</a>	8	Infinite loop in DeflaterOutputStream.finish()	PSU

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<a href="#">JDK-8279068</a>	17	IGV: Update to work with JDK 16 and 17	PSU
<a href="#">JDK-8279164</a>	8, 11, 17	Disable TLS_ECDH_* cipher suites	PSU
<a href="#">JDK-8279222</a>	17	Incorrect legacyMap.get in java.security.Provider after JDK-8276660	PSU
<a href="#">JDK-8279337</a>	11, 17	The MToolkit is still referenced in a few places	PSU
<a href="#">JDK-8279641</a>	17	Create manual JTReg tests for Swing accessibility	PSU
<a href="#">JDK-8279878</a>	17	java/awt/font/JNICheck/JNICheck.sh test fails on Ubuntu 21.10	PSU
<a href="#">JDK-8280034</a>	17	ProblemList jdk/jfr/api/consumer/recordingstream/TestOnEvent.java on linux-x64	PSU
<a href="#">JDK-8280120</a>	21	[IR Framework] Add attribute to @IR to enable/disable IR matching based on the architecture	PSU
<a href="#">JDK-8280392</a>	11, 17, 21	java/awt/Focus/NonFocusableWindowTest/NonfocusableOwnerTest.java failed with "RuntimeException: Test failed."	PSU
<a href="#">JDK-8280970</a>	17	Cleanup dead code in java.security.Provider	PSU
<a href="#">JDK-8280982</a>	17	[Wayland] [XWayland] java.awt.Robot taking screenshots	PSU
<a href="#">JDK-8280988</a>	17, 21	[XWayland] Click on title to request focus test failures	PSU
<a href="#">JDK-8280990</a>	17, 21	[XWayland] XTest emulated mouse click does not bring window to front	PSU
<a href="#">JDK-8280993</a>	17	[XWayland] Popup is not closed on click outside of area controlled by XWayland	PSU
<a href="#">JDK-8280994</a>	17	[XWayland] Drag and Drop does not work in java  wayland app direction	PSU

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<a href="#">JDK-8281944</a>	17	JavaDoc throws java.lang.IllegalStateException: ERRONEOUS	PSU
<a href="#">JDK-8282354</a>	17	Remove dependancy of TestHttpServer, HttpTransaction, HttpCallback from open/test/jdk/tests	PSU
<a href="#">JDK-8282526</a>	17	Default icon is not painted properly	PSU
<a href="#">JDK-8283223</a>	21	gc/stringdedup/TestStringDeduplicationFullGC.java#Parallel failed with "RuntimeException: String verification failed"	PSU
<a href="#">JDK-8283728</a>	17	jdk.hotspot.agent: Wrong location for RISCv64ThreadContext.java	PSU
<a href="#">JDK-8284316</a>	17	Support accessibility ManualTestFrame.java for non SwingSet tests	PSU
<a href="#">JDK-8284585</a>	11, 17	PushPromiseContinuation test fails intermittently in timeout	PSU
<a href="#">JDK-8284771</a>	8	java/util/zip/CloseInflaterDeflaterTest.java failed with "AssertionError: Expected IOException to be thrown, but nothing was thrown"	PSU
<a href="#">JDK-8285497</a>	17	Add system property for Java SE specification maintenance version	PSU
<a href="#">JDK-8286781</a>	11	Replace the deprecated/obsolete gethostbyname and inet_addr calls	PSU
<a href="#">JDK-8287325</a>	21	AArch64: fix virtual threads with -XX:UseBranchProtection=pac-ret	PSU
<a href="#">JDK-8288568</a>	17	Reduce runtime of java.security microbenchmarks	PSU
<a href="#">JDK-8289182</a>	17	NMT: MemTracker::baseline should return void	PSU
<a href="#">JDK-8290966</a>	17	G1: Record number of PLAB filled and number of direct allocations	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8291760</a>	17	PipelineLeaksFD.java still fails: More or fewer pipes than expected	PSU
<a href="#">JDK-8291809</a>	21	Convert compiler/c2/cr7200264/TestSSE2IntVect.java to IR verification test	PSU
<a href="#">JDK-8292739</a>	17	Invalid legacy entries may be returned by Provider.getServices() call	PSU
<a href="#">JDK-8292948</a>	17	JEditorPane ignores font-size styles in external linked css-file	PSU
<a href="#">JDK-8293862</a>	17	javax/swing/JFileChooser/8046391/bug8046391.java failed with 'Cannot invoke "java.awt.Image.getWidth(java.awt.image.ImageObserver)" because "retVal" is null'	PSU
<a href="#">JDK-8293872</a>	17	Make runtime/Thread/ThreadCountLimit.java more robust	PSU
<a href="#">JDK-8294148</a>	11, 17, 21	Support JSplitPane for instructions and test UI	PSU
<a href="#">JDK-8294691</a>	17	dynamicArchive/RelativePath.java is running other test case	PSU
<a href="#">JDK-8294994</a>	17	Update Jarsigner and Keytool i18n tests to validate i18n compliance	PSU
<a href="#">JDK-8295111</a>	17	dpkg appears to have problems resolving symbolically linked native libraries	PSU
<a href="#">JDK-8296812</a>	17	sprintf is deprecated in Xcode 14	PSU
<a href="#">JDK-8297878</a>	17	KEM: Implementation	PSU
<a href="#">JDK-8298381</a>	17	Improve handling of session tickets for multiple SSLContexts	PSU

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<a href="#">JDK-8298596</a>	17	vmTestbase/nsk/sysdict/vm/stress/chain/chain008/chain008.java fails with "NoClassDefFoundError: Could not initialize class java.util.concurrent.ThreadLocalRandom"	PSU
<a href="#">JDK-8298809</a>	17	Clean up vm/compiler/InterfaceCalls JMH	PSU
<a href="#">JDK-8298873</a>	11	Update IllegalRecordVersion.java for changes to TLS implementation	PSU
<a href="#">JDK-8298887</a>	8	On the latest macOS+XCode the Robot API may report wrong colors	PSU
<a href="#">JDK-8299058</a>	11, 17, 21	AssertionError in sun.net.httpserver.ServerImpl when connection is idle	PSU
<a href="#">JDK-8299254</a>	17	Support dealing with standard assert macro	PSU
<a href="#">JDK-8299378</a>	17	sprintf is deprecated in Xcode 14	PSU
<a href="#">JDK-8299395</a>	17	Remove metaprogramming/removeCV.hpp	PSU
<a href="#">JDK-8299396</a>	17	Remove metaprogramming/removeExtent.hpp	PSU
<a href="#">JDK-8299397</a>	17	Remove metaprogramming/isFloatingPoint.hpp	PSU
<a href="#">JDK-8299398</a>	17	Remove metaprogramming/isConst.hpp	PSU
<a href="#">JDK-8299399</a>	17	Remove metaprogramming/isArray.hpp	PSU
<a href="#">JDK-8299402</a>	17	Remove metaprogramming/isVolatile.hpp	PSU
<a href="#">JDK-8299479</a>	17	Remove metaprogramming/decay.hpp	PSU
<a href="#">JDK-8299481</a>	17	Remove metaprogramming/removePointer.hpp	PSU
<a href="#">JDK-8299482</a>	17	Remove metaprogramming/isIntegral.hpp	PSU
<a href="#">JDK-8299487</a>	11, 17, 21	Test java/net/httpclient/whitebox/SSLTubeTestDriver.java timed out	PSU
<a href="#">JDK-8299635</a>	17	Hotspot update for deprecated sprintf in Xcode 14	PSU

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<a href="#">JDK-8299677</a>	8	Formatter.format might take a long time to format an integer or floating-point	PSU
<a href="#">JDK-8299779</a>	17	Test tools/jpackage/share/jdk/jpackage/tests/MainClassTest.java timed out	PSU
<a href="#">JDK-8299790</a>	21	os::print_hex_dump is racy	PSU
<a href="#">JDK-8299813</a>	17, 21, 23	java/nio/channels/DatagramChannel/Disconnect.java fails with jtreg test timeout due to lost datagram	PSU
<a href="#">JDK-8299971</a>	17	Remove metaprogramming/conditional.hpp	PSU
<a href="#">JDK-8299972</a>	17	Remove metaprogramming/removeReference.hpp	PSU
<a href="#">JDK-8300169</a>	17	Build failure with clang-15	PSU
<a href="#">JDK-8300260</a>	17	Remove metaprogramming/isSame.hpp	PSU
<a href="#">JDK-8300264</a>	17	Remove metaprogramming/isPointer.hpp	PSU
<a href="#">JDK-8300265</a>	17	Remove metaprogramming/isSigned.hpp	PSU
<a href="#">JDK-8300910</a>	17	Remove metaprogramming/integralConstant.hpp	PSU
<a href="#">JDK-8301132</a>	17	Test update for deprecated sprintf in Xcode 14	PSU
<a href="#">JDK-8301189</a>	11	validate-source fails after JDK-8298873	PSU
<a href="#">JDK-8301200</a>	17	Don't scale timeout stress with timeout factor	PSU
<a href="#">JDK-8301274</a>	17	update for deprecated sprintf for security components	PSU
<a href="#">JDK-8301279</a>	17	update for deprecated sprintf for management components	PSU
<a href="#">JDK-8301686</a>	17, 21	TLS 1.3 handshake fails if server_name doesn't match resuming session	PSU
<a href="#">JDK-8301704</a>	17	Shorten the number of GCs in UnloadingTest.java to verify a class loader not being unloaded	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8302495</a>	17	update for deprecated sprintf for java.desktop	PSU
<a href="#">JDK-8302800</a>	17	Augment NaN handling tests of FDLIBM methods	PSU
<a href="#">JDK-8303216</a>	11, 17	Prefer ArrayList to LinkedList in sun.net.httpserver.ServerImpl	PSU
<a href="#">JDK-8303466</a>	8, 11, 17	C2: failed: malformed control flow. Limit type made precise with MaxL/MinL	PSU
<a href="#">JDK-8303527</a>	17	update for deprecated sprintf for jdk.hotspot.agent	PSU
<a href="#">JDK-8303617</a>	17	update for deprecated sprintf for jdk.jdwp.agent	PSU
<a href="#">JDK-8303830</a>	17	update for deprecated sprintf for jdk.accessibility	PSU
<a href="#">JDK-8303891</a>	17	Speed up Zip64SizeTest using a small ZIP64 file	PSU
<a href="#">JDK-8303920</a>	17, 21	Avoid calling out to python in DataDescriptorSignatureMissing test	PSU
<a href="#">JDK-8303942</a>	17	os::write should write completely	PSU
<a href="#">JDK-8303965</a>	11, 17	java.net.http.HttpClient should reset the stream if response headers contain malformed header fields	PSU
<a href="#">JDK-8304375</a>	17	jdk/jfr/api/consumer/filestream/TestOrdered.java failed with "Expected at least some events to be out of order! Reuse = false"	PSU
<a href="#">JDK-8304962</a>	17	sun/net/www/http/KeepAliveCache/B5045306.java: java.lang.RuntimeException: Failed: Initial Keep Alive Connection is not being reused	PSU
<a href="#">JDK-8304963</a>	17	HttpServer closes connection after processing HEAD after JDK-7026262	PSU
<a href="#">JDK-8305072</a>	11, 17, 21	Win32ShellFolder2.compareTo is inconsistent	PSU
<a href="#">JDK-8305079</a>	11, 17	Remove finalize() from compiler/c2/Test719030	PSU
<a href="#">JDK-8305081</a>	11, 17	Remove finalize() from test/hotspot/jtreg/compiler/runtime/Test8168712	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8305400</a>	8	ISO 4217 Amendment 175 Update	PSU
<a href="#">JDK-8305825</a>	11, 17, 21	getBounds API returns wrong value resulting in multiple Regression Test Failures on Ubuntu 23.04	PSU
<a href="#">JDK-8305906</a>	11	HttpClient may use incorrect key when finding pooled HTTP/2 connection for IPv6 address	PSU
<a href="#">JDK-8305931</a>	8	jdk/jfr/jcmd/TestJcmdDumpPathToGCRoots.java failed with "Expected chains but found none"	PSU
<a href="#">JDK-8305959</a>	17	x86: Improve itable_stub	PSU
<a href="#">JDK-8306060</a>	11	Open source few AWT Insets related tests	PSU
<a href="#">JDK-8306432</a>	11	Open source several AWT Text Component related tests	PSU
<a href="#">JDK-8306466</a>	11	Open source more AWT Drag & Drop related tests	PSU
<a href="#">JDK-8306489</a>	11	Open source AWT List related tests	PSU
<a href="#">JDK-8306566</a>	11	Open source several clipboard AWT tests	PSU
<a href="#">JDK-8306583</a>	17	Add JVM crash check in CDSTestUtils.executeAndLog	PSU
<a href="#">JDK-8306850</a>	11	Open source AWT Modal related tests	PSU
<a href="#">JDK-8306929</a>	17	Avoid CleanClassLoaderDataMetaspaces safepoints when previous versions are shared	PSU
<a href="#">JDK-8306946</a>	17	jdk/test/lib/process/ProcessToolsStartProcessTest.java fails with "wrong number of lines in OutputAnalyzer output"	PSU
<a href="#">JDK-8307091</a>	11, 17	A few client tests intermittently throw ConcurrentModificationException	PSU
<a href="#">JDK-8307193</a>	17, 21	Several Swing jtreg tests use class.forName on L&F classes	PSU
<a href="#">JDK-8307352</a>	17, 21	AARCH64: Improve itable_stub	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8307448</a>	17	Test RedefineSharedClassJFR fail due to wrong assumption	PSU
<a href="#">JDK-8307778</a>	21	com/sun/jdi/cds tests fail with jtreg's Virtual test thread factory	PSU
<a href="#">JDK-8307779</a>	8, 11, 17	Relax the java.awt.Robot specification	PSU
<a href="#">JDK-8307788</a>	21	vmTestbase/gc/gctests/LargeObjects/large003/TestDescription.java timed out	PSU
<a href="#">JDK-8307848</a>	17	update for deprecated sprintf for jdk.attach	PSU
<a href="#">JDK-8307850</a>	17	update for deprecated sprintf for jdk.jdi	PSU
<a href="#">JDK-8308022</a>	17	update for deprecated sprintf for java.base	PSU
<a href="#">JDK-8308144</a>	17	Uncontrolled memory consumption in SSLFlowDelegate.Reader	PSU
<a href="#">JDK-8308184</a>	11, 17	Launching java with large number of jars in classpath with java.protocol.handler.pkgs system property set can lead to StackOverflowError	PSU
<a href="#">JDK-8308286</a>	21	Fix clang warnings in linux code	PSU
<a href="#">JDK-8308660</a>	21	C2 compilation hits 'node must be dead' assert	PSU
<a href="#">JDK-8308801</a>	17	update for deprecated sprintf for libnet in java.base	PSU
<a href="#">JDK-8308891</a>	17	TestCDSVMCrash.java needs @requires vm.cds	PSU
<a href="#">JDK-8309067</a>	21	gtest/AsyncLogGtest.java fails again in stderrOutput_vm	PSU
<a href="#">JDK-8309138</a>	8	Fix container tests for jdks with symlinked conf dir	PSU
<a href="#">JDK-8309241</a>	17	ClassForNameLeak fails intermittently as the class loader hasn't been unloaded	PSU
<a href="#">JDK-8309621</a>	17, 21	[XWayland][Screencast] screen capture failure with sun.java2d.uiScale other than 1	PSU

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<a href="#">JDK-8309685</a>	21	Fix -Wconversion warnings in assembler and register code	PSU
<a href="#">JDK-8309703</a>	17	AIX build fails after JDK-8280982	PSU
<a href="#">JDK-8309756</a>	17	Occasional crashes with pipewire screen capture on Wayland	PSU
<a href="#">JDK-8309894</a>	21	compiler/vectorapi/VectorLogicalOpIdentityTest.java fails on SVE system with UseSVE=0	PSU
<a href="#">JDK-8310070</a>	17	Test: javax/net/ssl/DTLS/DTLSWontNegotiateV10.java timed out	PSU
<a href="#">JDK-8310072</a>	21	JComboBox/DisabledComboBoxFontTestAuto: Enabled and disabled ComboBox does not match in these LAFs: GTK+	PSU
<a href="#">JDK-8310108</a>	17, 21	Skip ReplaceCriticalClassesForSubgraphs when EnableJVMCI is specified	PSU
<a href="#">JDK-8310201</a>	11, 17, 21	Reduce verbose locale output in -XshowSettings launcher option	PSU
<a href="#">JDK-8310334</a>	17, 21	[XWayland][Screencast] screen capture error message in debug	PSU
<a href="#">JDK-8310628</a>	17, 21	GcInfoBuilder.c missing JNI Exception checks	PSU
<a href="#">JDK-8310683</a>	17, 21	Refactor StandardCharset/standard.java to use JUnit	PSU
<a href="#">JDK-8310906</a>	21	Fix -Wconversion warnings in runtime, oops and some code header files.	PSU
<a href="#">JDK-8310923</a>	11	Refactor Currency tests to use JUnit	PSU
<a href="#">JDK-8311306</a>	21	Test com/sun/management/ThreadMXBean/ThreadCpuTimeArray.java failed: out of expected range	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8311666</a>	8, 11, 17, 21	Disabled tests in test/jdk/sun/java2d/marlin	PSU
<a href="#">JDK-8311989</a>	21	Test java/lang/Thread/virtual/Reflection.java timed out	PSU
<a href="#">JDK-8312049</a>	17, 21	runtime/logging/ClassLoadUnloadTest can be improved	PSU
<a href="#">JDK-8312111</a>	21	open/test/jdk/java/awt/Robot/ModifierRobotKey/ModifierRobotKeyTest.java fails on ubuntu 23.04	PSU
<a href="#">JDK-8312140</a>	11, 17, 21	jdk/jshell tests failed with JDI socket timeouts	PSU
<a href="#">JDK-8312200</a>	21	Fix Parse::catch_call_exceptions memory leak	PSU
<a href="#">JDK-8312229</a>	17, 21	Crash involving yield, switch and anonymous classes	PSU
<a href="#">JDK-8313256</a>	17	Exclude failing multicast tests on AIX	PSU
<a href="#">JDK-8313394</a>	17	Array Elements in OldObjectSample event has the incorrect description	PSU
<a href="#">JDK-8313674</a>	17, 21	(fc) java/nio/channels/FileChannel/BlockDeviceSize.java should test for more block devices	PSU
<a href="#">JDK-8313697</a>	17, 21	[XWayland][Screencast] consequent getPixelColor calls are slow	PSU
<a href="#">JDK-8313873</a>	17	java/nio/channels/DatagramChannel/SendReceiveMaxSize.java fails on AIX due to small default RCVBUF size and different IPv6 Header interpretation	PSU
<a href="#">JDK-8313901</a>	17	[TESTBUG] test/hotspot/jtreg/compiler/codecache/CodeCacheFullCountTest.java fails with java.lang.VirtualMachineError	PSU
<a href="#">JDK-8313983</a>	21	jmod create --target-platform should replace existing ModuleTarget attribute	PSU

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<a href="#">JDK-8314163</a>	21	os::print_hex_dump prints incorrectly for big endian platforms and unit sizes larger than 1	PSU
<a href="#">JDK-8314225</a>	21	SIGSEGV in JavaThread::is_lock_owned	PSU
<a href="#">JDK-8314476</a>	17	TestJstatdPortAndServer.java failed with "java.rmi.NoSuchObjectException: no such object in table"	PSU
<a href="#">JDK-8314515</a>	21	java/util/concurrent/SynchronousQueue/Fairness.java failed with "Error: fair=false i=8 j=0"	PSU
<a href="#">JDK-8314614</a>	11, 17, 21	jdk/jshell/ImportTest.java failed with "InternalError: Failed remote listen"	PSU
<a href="#">JDK-8314837</a>	17	5 compiled/codecache tests ignore VM flags	PSU
<a href="#">JDK-8315024</a>	17, 21	Vector API FP reduction tests should not test for exact equality	PSU
<a href="#">JDK-8315031</a>	21	YoungPLABSize and OldPLABSize not aligned by ObjectAlignmentInBytes	PSU
<a href="#">JDK-8315117</a>	8	Update Zlib Data Compression Library to Version 1.3	PSU
<a href="#">JDK-8315362</a>	17	NMT: summary diff reports threads count incorrectly	PSU
<a href="#">JDK-8315422</a>	11, 17, 21	getSoTimeout() would be in try block in SSLSocketImpl	PSU
<a href="#">JDK-8315437</a>	11, 17	Enable parallelism in vmTestbase/nsk/monitoring/stress/classload tests	PSU
<a href="#">JDK-8315442</a>	11, 17	Enable parallelism in vmTestbase/nsk/monitoring/stress/thread tests	PSU
<a href="#">JDK-8315505</a>	21	CompileTask timestamp printed can overflow	PSU

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<a href="#">JDK-8315559</a>	17	Delay TempSymbol cleanup to avoid symbol table churn	PSU
<a href="#">JDK-8315576</a>	17, 21	compiler/codecache/CodeCacheFullCountTest.java fails after JDK-8314837	PSU
<a href="#">JDK-8315651</a>	17	Stop hiding AIX specific multicast socket errors via NetworkConfiguration (aix)	PSU
<a href="#">JDK-8315684</a>	17	Parallelize sun/security/util/math/TestIntegerModuloP.java	PSU
<a href="#">JDK-8315774</a>	17	Enable parallelism in vmTestbase/gc/g1/unloading tests	PSU
<a href="#">JDK-8315804</a>	11, 17, 21	Open source several Swing JTabbedPane JTextArea JTextField tests	PSU
<a href="#">JDK-8315898</a>	11	Open source swing JMenu tests	PSU
<a href="#">JDK-8315923</a>	21	pretouch_memory by atomic-add-0 fragments huge pages unexpectedly	PSU
<a href="#">JDK-8315936</a>	17	Parallelize gc/stress/TestStressG1Humongous.java test	PSU
<a href="#">JDK-8315965</a>	11, 17, 21	Open source various AWT applet tests	PSU
<a href="#">JDK-8315969</a>	21	compiler/rangechecks/TestRangeCheckHoistingScaledIV.java: make flagless	PSU
<a href="#">JDK-8316104</a>	11, 17, 21	Open source several Swing SplitPane and RadioButton related tests	PSU
<a href="#">JDK-8316131</a>	21	runtime/cds/appcds/TestParallelGCWithCDS.java fails with JNI error	PSU
<a href="#">JDK-8316193</a>	17, 21	jdk/jfr/event/oldobject/TestListenerLeak.java java.lang.Exception: Could not find leak	PSU
<a href="#">JDK-8316211</a>	11, 17, 21	Open source several manual applet tests	PSU

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<a href="#">JDK-8316240</a>	11, 17, 21	Open source several add/remove MenuBar manual tests	PSU
<a href="#">JDK-8316285</a>	11, 17, 21	Opensource JButton manual tests	PSU
<a href="#">JDK-8316306</a>	11, 17, 21	Open source and convert manual Swing test	PSU
<a href="#">JDK-8316328</a>	8, 11, 17, 21	Test jdk/jfr/event/oldobject/TestSanityDefault.java times out for some heap sizes	PSU
<a href="#">JDK-8316361</a>	21	C2: assert(!failure) failed: Missed optimization opportunity in PhaselterGVN with -XX:VerifyIterativeGVN=10	PSU
<a href="#">JDK-8316387</a>	17	Exclude more failing multicast tests on AIX after JDK-8315651	PSU
<a href="#">JDK-8316389</a>	17, 21	Open source few AWT applet tests	PSU
<a href="#">JDK-8316462</a>	11	sun/jvmsstat/monitor/MonitoredVm/MonitorVmStartTerminate.java ignores VM flags	PSU
<a href="#">JDK-8316468</a>	17	os::write incorrectly handles partial write	PSU
<a href="#">JDK-8316756</a>	21	C2 EA fails with "missing memory path" when encountering unsafe_arraycopy stub call	PSU
<a href="#">JDK-8316973</a>	11, 17	GC: Make TestDisableDefaultGC use createTestJvm	PSU
<a href="#">JDK-8317112</a>	17, 21	Add screenshot for Frame/DefaultSizeTest.java	PSU
<a href="#">JDK-8317128</a>	21	java/nio/file/Files/CopyAndMove.java failed with AccessDeniedException	PSU
<a href="#">JDK-8317228</a>	11, 17	GC: Make TestXXXHeapSizeFlags use createTestJvm	PSU
<a href="#">JDK-8317240</a>	21	Promptly free OopMapEntry after fail to insert the entry to OopMapCache	PSU
<a href="#">JDK-8317288</a>	11, 17, 21	[macos] java/awt/Window/Grab/GrabTest.java: Press on the outside area didn't cause ungrab	PSU



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<a href="#">JDK-8317299</a>	21	safepoint scalarization doesn't keep track of the depth of the JVM state	PSU
<a href="#">JDK-8317316</a>	11, 17	G1: Make TestG1PercentageOptions use createTestJvm	PSU
<a href="#">JDK-8317343</a>	11, 17	GC: Make TestHeapFreeRatio use createTestJvm	PSU
<a href="#">JDK-8317358</a>	11, 17	G1: Make TestMaxNewSize use createTestJvm	PSU
<a href="#">JDK-8317360</a>	17, 21	Missing null checks in JfrCheckpointManager and JfrStringPool initialization routines	PSU
<a href="#">JDK-8317372</a>	17, 21	Refactor some NumberFormat tests to use JUnit	PSU
<a href="#">JDK-8317446</a>	21	ProblemList gc/arguments/TestNewSizeFlags.java on macosx-aarch64 in Xcomp	PSU
<a href="#">JDK-8317449</a>	21	ProblemList serviceability/jvmti/stress/StackTrace/NotSuspended/GetStackTraceNotSuspendedStressTest.java on several platforms	PSU
<a href="#">JDK-8317635</a>	17, 21	Improve GetClassFields test to verify correctness of field order	PSU
<a href="#">JDK-8317696</a>	21	Fix compilation with clang-16	PSU
<a href="#">JDK-8317738</a>	21	CodeCacheFullCountTest failed with "VirtualMachineError: Out of space in CodeCache for method handle intrinsic"	PSU
<a href="#">JDK-8317831</a>	17, 21	compiler/codecache/CheckLargePages.java fails on OL 8.8 with unexpected memory string	PSU
<a href="#">JDK-8318071</a>	21	IgnoreUnrecognizedVMOptions flag still causes failure in ArchiveHeapTestClass	PSU
<a href="#">JDK-8318089</a>	17	Class space not marked as such with NMT when CDS is off	PSU
<a href="#">JDK-8318474</a>	17	Fix memory reporter for thread_count	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8318479</a>	17, 21	[jmh] the test security.CacheBench failed for multiple threads run	PSU
<a href="#">JDK-8318605</a>	17, 21	Enable parallelism in vmTestbase/nsk/stress/stack tests	PSU
<a href="#">JDK-8318696</a>	17	Do not use LFS64 symbols on Linux	PSU
<a href="#">JDK-8318951</a>	8	Additional negative value check in JPEG decoding	PSU
<a href="#">JDK-8318986</a>	17	Improve GenericWaitBarrier performance	PSU
<a href="#">JDK-8319103</a>	17	Popups that request focus are not shown on Linux with Wayland	PSU
<a href="#">JDK-8319406</a>	17, 21	x86: Shorter movptr(reg, imm) for 32-bit immediates	PSU
<a href="#">JDK-8319713</a>	17	Parallel: Remove PSAdaptiveSizePolicy::should_full_GC	PSU
<a href="#">JDK-8319773</a>	21	Avoid inflating monitors when installing hash codes for LM_LIGHTWEIGHT	PSU
<a href="#">JDK-8319793</a>	21	C2 compilation fails with "Bad graph detected in build_loop_late" after JDK-8279888	PSU
<a href="#">JDK-8319817</a>	21	Charset constructor should make defensive copy of aliases	PSU
<a href="#">JDK-8319818</a>	21	Address GCC 13.2.0 warnings (stringop-overflow and dangling-pointer)	PSU
<a href="#">JDK-8320079</a>	11, 17, 21	The ArabicBox.java test has no control buttons	PSU
<a href="#">JDK-8320212</a>	21	Disable GCC stringop-overflow warning for affected files	PSU
<a href="#">JDK-8320379</a>	17, 21	C2: Sort spilling/unspilling sequence for better ld/st merging into ldp/stp on AArch64	PSU
<a href="#">JDK-8320570</a>	11	NegativeArraySizeException decoding >1G UTF8 bytes with non-ascii characters	PSU

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<a href="#">JDK-8320602</a>	11, 17, 21	Lock contention in SchemaDVFactory.getInstance()	PSU
<a href="#">JDK-8320608</a>	17, 21	Many jtreg printing tests are missing the @printer keyword	PSU
<a href="#">JDK-8320655</a>	17, 21	awt screencast robot spin and sync issues with native libpipewire api	PSU
<a href="#">JDK-8320675</a>	21	PrinterJob/SecurityDialogTest.java hangs	PSU
<a href="#">JDK-8320692</a>	17	Null icon returned for .exe without custom icon	PSU
<a href="#">JDK-8320945</a>	11, 17, 21	problemlist tests failing on latest Windows 11 update	PSU
<a href="#">JDK-8320964</a>	8	sun/tools/native2ascii/Native2AsciiTests.sh fails on Japanese	PSU
<a href="#">JDK-8321025</a>	17, 21	Enable Neoverse N1 optimizations for Neoverse V2	PSU
<a href="#">JDK-8321176</a>	17, 21	[Screencast] make a second attempt on screencast failure	PSU
<a href="#">JDK-8321206</a>	21	Make Locale related system properties <code>StaticProperty</code>	PSU
<a href="#">JDK-8321220</a>	17, 21	JFR: RecordedClass reports incorrect modifiers	PSU
<a href="#">JDK-8321278</a>	21	C2: Partial peeling fails with assert "last_peel != first_not_peeled"	PSU
<a href="#">JDK-8321480</a>	8	ISO 4217 Amendment 176 Update	PSU
<a href="#">JDK-8321509</a>	21	False positive in get_trampoline fast path causes crash	PSU
<a href="#">JDK-8321933</a>	21	TestCDSVMCrash.java spawns two processes	PSU
<a href="#">JDK-8322008</a>	17, 21	Exclude some CDS tests from running with -Xshare:off	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8322062</a>	21	com/sun/jdi/JdwpAllowTest.java does not perform negative testing with prefix length	PSU
<a href="#">JDK-8322330</a>	11, 17, 21	JavadocHelperTest.java OOMs with Parallel GC and ZGC	PSU
<a href="#">JDK-8322726</a>	17, 21	C2: Unloaded signature class kills argument value	PSU
<a href="#">JDK-8322743</a>	21	C2: prevent lock region elimination in OSR compilation	PSU
<a href="#">JDK-8322766</a>	21	Micro bench SSLHandshake should use default algorithms	PSU
<a href="#">JDK-8322881</a>	21	java/nio/file/Files/CopyMoveVariations.java fails with AccessDeniedException due to permissions of files in /tmp	PSU
<a href="#">JDK-8322971</a>	17, 21	KEM.getInstance() should check if a 3rd-party security provider is signed	PSU
<a href="#">JDK-8322996</a>	21	BoxLockNode creation fails with assert(reg < CHUNK_SIZE) failed: sanity	PSU
<a href="#">JDK-8323122</a>	17, 21	AArch64: Increase itable stub size estimate	PSU
<a href="#">JDK-8323196</a>	21	jdk/jfr/api/consumer/filestream/TestOrdered.java failed with "Events are not ordered! Reuse = false"	PSU
<a href="#">JDK-8323274</a>	21	C2: array load may float above range check	PSU
<a href="#">JDK-8323552</a>	21	AbstractMemorySegmentImpl#mismatch returns -1 when comparing distinct areas of the same instance of MemorySegment	PSU
<a href="#">JDK-8323577</a>	21	C2 SuperWord: remove AlignVector restrictions on IR tests added in JDK-8305055	PSU
<a href="#">JDK-8323584</a>	17, 21	AArch64: Unnecessary ResourceMark in NativeCall::set_destination_mt_safe	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8323670</a>	11, 17, 21	A few client tests intermittently throw ConcurrentModificationException	PSU
<a href="#">JDK-8323682</a>	21	C2: guard check is not generated in Arrays.copyOfRange intrinsic when allocation is eliminated by EA	PSU
<a href="#">JDK-8323782</a>	21	Race: Thread::interrupt vs. AbstractInterruptibleChannel.begin	PSU
<a href="#">JDK-8323801</a>	17, 21	<s> tag doesn't strikethrough the text	PSU
<a href="#">JDK-8323972</a>	21	C2 compilation fails with assert(!xmas_Loop()is_loop_nest_inner_loop()) failed: loop was transformed	PSU
<a href="#">JDK-8324174</a>	21	assert(mis_entered(current)) failed: invariant	PSU
<a href="#">JDK-8324577</a>	17, 21	[REDO] - [IMPROVE] OPEN_MAX is no longer the max limit on macOS >= 10.6 for RLIMIT_NOFILE	PSU
<a href="#">JDK-8324580</a>	21	SIGFPE on THP initialization on kernels < 4.10	PSU
<a href="#">JDK-8324632</a>	8	Update Zlib Data Compression Library to Version 1.3.1	PSU
<a href="#">JDK-8324641</a>	21	[IR Framework] Add Setup method to provide custom arguments and set fields	PSU
<a href="#">JDK-8324646</a>	17	Avoid Class.forName in SecureRandom constructor	PSU
<a href="#">JDK-8324648</a>	17	Avoid NoSuchMethodError when instantiating NativePRNG	PSU
<a href="#">JDK-8324668</a>	17, 21	JDWP process management needs more efficient file descriptor handling	PSU
<a href="#">JDK-8324753</a>	17	[AIX] adjust os_posix after JDK-8318696	PSU
<a href="#">JDK-8324755</a>	11, 17, 21	Enable parallelism in vmTestbase/gc/gctests/LargeObjects tests	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8324781</a>	21	runtime/Thread/TestAlwaysPreTouchStacks.java failed with Expected a higher ratio between stack committed and reserved	PSU
<a href="#">JDK-8324808</a>	21	Manual printer tests have no Pass/Fail buttons, instructions close set 3	PSU
<a href="#">JDK-8324933</a>	17	ConcurrentHashMap::statistics_calculate synchronization is expensive	PSU
<a href="#">JDK-8324969</a>	21	C2: prevent elimination of unbalanced coarsened locking regions	PSU
<a href="#">JDK-8324983</a>	21	Race in CompileBroker::possibly_add_compiler_threads	PSU
<a href="#">JDK-8325022</a>	11, 17, 21	Incorrect error message on client authentication	PSU
<a href="#">JDK-8325037</a>	21	x86: enable and fix hotspot/jtreg/compiler/vectorization/TestRoundVectFloat.java	PSU
<a href="#">JDK-8325083</a>	21	jdk/incubator/vector/Double512VectorTests.java crashes in Assembler::vex_prefix_and_encode	PSU
<a href="#">JDK-8325179</a>	11, 17, 21	Race in BasicDirectoryModel.validateFileCache	PSU
<a href="#">JDK-8325218</a>	21	gc/parallel/TestAlwaysPreTouchBehavior.java fails	PSU
<a href="#">JDK-8325382</a>	21	(fc) FileChannel.transferTo throws IOException when position equals size	PSU
<a href="#">JDK-8325384</a>	17, 21	sun/security/ssl/SSLSessionImpl/ResumptionUpdateBoundValues.java failing intermittently when main thread is a virtual thread	PSU
<a href="#">JDK-8325469</a>	21	Freeze/Thaw code can crash in the presence of OSR frames	PSU
<a href="#">JDK-8325494</a>	21	C2: Broken graph after not skipping CastII node anymore for Assertion Predicates after JDK-8309902	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8325520</a>	21	Vector loads and stores with indices and masks incorrectly compiled	PSU
<a href="#">JDK-8325525</a>	23	Create jtreg test case for JDK-8325203	PSU
<a href="#">JDK-8325542</a>	21	CTW: Runner can produce negative StressSeed	PSU
<a href="#">JDK-8325567</a>	17	jspawnhelper without args fails with segfault	PSU
<a href="#">JDK-8325587</a>	21	Shenandoah: ShenandoahLock should allow blocking in VM	PSU
<a href="#">JDK-8325616</a>	21	JFR ZGC Allocation Stall events should record stack traces	PSU
<a href="#">JDK-8325620</a>	17, 21	HTMLReader uses ConvertAction instead of specified CharacterAction for <b>, <i>, <u>	PSU
<a href="#">JDK-8325621</a>	17	Improve jspawnhelper version checks	PSU
<a href="#">JDK-8325754</a>	17, 21	Dead AbstractQueuedSynchronizer\$ConditionNodes survive minor garbage collections	PSU
<a href="#">JDK-8325763</a>	21	Revert properties: vm.opt.x.*	PSU
<a href="#">JDK-8325862</a>	11	set -XX:+ErrorFileToStderr when executing java in containers for some container related jtreg tests	PSU
<a href="#">JDK-8325876</a>	11	crashes in docker container tests on Linuxppc64le Power8 machines	PSU
<a href="#">JDK-8326106</a>	17, 21	Write and clear stack trace table outside of safepoint	PSU
<a href="#">JDK-8326129</a>	21	Java Record Pattern Match leads to infinite loop	PSU
<a href="#">JDK-8326140</a>	11	src/jdk.accessibility/windows/native/libjavaaccessbridge/AccessBridgeJavaEntryPoints.cpp ReleaseStringChars might be missing in early returns	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8326332</a>	17, 21	Unclosed inline tags cause misalignment in summary tables	PSU
<a href="#">JDK-8326351</a>	8	Update the Zlib version in open/src/java.base/share/legal/zlib.md to 1.3.1	PSU
<a href="#">JDK-8326446</a>	17	The User and System of jdk.CPULoad on Apple M1 are inaccurate	PSU
<a href="#">JDK-8326521</a>	8	JFR: CompilerPhase event test fails on windows 32 bit	PSU
<a href="#">JDK-8326529</a>	8	JFR: Test for CompilerCompile events fails due to time out	PSU
<a href="#">JDK-8326717</a>	21	Disable stringop-overflow in shenandoahLock.cpp	PSU
<a href="#">JDK-8326734</a>	17, 21	text-decoration applied to <span> lost when mixed with <u> or <s>	PSU
<a href="#">JDK-8327007</a>	8, 11, 17, 21	javax/swing/JSpinner/8008657/bug8008657.java fails	PSU
<a href="#">JDK-8327040</a>	21	Problemlist ActionListenerCalledTwiceTest.java test failing in macos14	PSU
<a href="#">JDK-8327137</a>	11, 17, 21	Add test for ConcurrentModificationException in BasicDirectoryModel	PSU
<a href="#">JDK-8327312</a>	17	[17u] Problem list ReflectionCallerCacheTest.java due to 8324978	PSU
<a href="#">JDK-8327401</a>	21	Some jtreg tests fail on Wayland without any tracking bug	PSU
<a href="#">JDK-8327423</a>	21	C2 remove_main_post_loops: check if main-loop belongs to pre-loop, not just assert	PSU
<a href="#">JDK-8327424</a>	17, 21	ProblemList serviceability/sa/TestJmapCore.java on all platforms with ZGC	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8327501</a>	21	Common ForkJoinPool prevents class unloading in some cases	PSU
<a href="#">JDK-8327631</a>	11	Update IANA Language Subtag Registry to Version 2024-03-07	PSU
<a href="#">JDK-8327650</a>	17, 21	Test java/nio/channels/DatagramChannel/StressNativeSignal.java timed out	PSU
<a href="#">JDK-8327787</a>	11, 17, 21	Convert javax/swing/border/Test4129681.java applet test to main	PSU
<a href="#">JDK-8327840</a>	11, 17, 21	Automate javax/swing/border/Test4129681.java	PSU
<a href="#">JDK-8327990</a>	21	[macosx-aarch64] Various tests fail with -XX:+AssertWXAtThreadSync	PSU
<a href="#">JDK-8328011</a>	11, 17, 21	Convert java/awt/Frame/GetBoundsResizeTest/GetBoundsResizeTest.java applet test to main	PSU
<a href="#">JDK-8328075</a>	17, 21	Shenandoah: Avoid forwarding when objects don't move in full-GC	PSU
<a href="#">JDK-8328110</a>	11, 17, 21	Allow simultaneous use of PassFailJFrame with split UI and additional windows	PSU
<a href="#">JDK-8328115</a>	11, 17, 21	Convert java/awt/font/TextLayout/TestJustification.html applet test to main	PSU
<a href="#">JDK-8328158</a>	11, 17, 21	Convert java/awt/Choice/NonFocusablePopupMenuTest to automatic main test	PSU
<a href="#">JDK-8328218</a>	11, 17, 21	Delete test java/awt/Window/FindOwner/FindOwner.html	PSU
<a href="#">JDK-8328234</a>	11, 17, 21	Remove unused nativeUtils files	PSU
<a href="#">JDK-8328238</a>	11, 17, 21	Convert few closed manual applet tests to main	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8328269</a>	11, 17, 21	NonFocusablePopupMenuTest.java should be marked as headful	PSU
<a href="#">JDK-8328273</a>	11, 17, 21	sun/management/jmxremote/bootstrap/RmiRegistrySslTest.java failed with java.rmi.server.ExportException: Port already in use	PSU
<a href="#">JDK-8328366</a>	21	Thread.setContextClassLoader from thread in FJP commonPool task no longer works after JDK-8327501	PSU
<a href="#">JDK-8328560</a>	11, 17, 21	java/awt/event/MouseEvent/ClickDuringKeypress/ClickDuringKeypress.java imports Applet	PSU
<a href="#">JDK-8328561</a>	11, 17, 21	test java/awt/Robot/ManualInstructions/ManualInstructions.java isn't used	PSU
<a href="#">JDK-8328642</a>	17, 21	Convert applet test MouseDraggedOutCauseScrollingTest.html to main	PSU
<a href="#">JDK-8328647</a>	17, 21	TestGarbageCollectorMXBean.java fails with C1-only and -Xcomp	PSU
<a href="#">JDK-8328697</a>	21	SubMenuShowTest and SwallowKeyEvents tests stabilization	PSU
<a href="#">JDK-8328785</a>	21	IOException: Symbol not found: C_GetInterface for PKCS11 interface prior to V3.0	PSU
<a href="#">JDK-8328895</a>	17, 21, 23	JFileChooser is very slow to open folders with many files	PSU
<a href="#">JDK-8328896</a>	17, 21	Fontmetrics for large Fonts has zero width	PSU
<a href="#">JDK-8328953</a>	11, 17, 21	JEditorPane.read throws ChangedCharSetException	PSU
<a href="#">JDK-8328999</a>	11, 17, 21	Update GIFlib to 5.2.2	PSU
<a href="#">JDK-8329004</a>	11, 17, 21	Update Libpng to 1.6.43	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8329013</a>	11	StackOverflowError when starting Apache Tomcat with signed jar	PSU
<a href="#">JDK-8329088</a>	21	Stack chunk thawing races with concurrent GC stack iteration	PSU
<a href="#">JDK-8329103</a>	11, 17, 21	assert(!thread.in_asgct()) failed during multi-mode profiling	PSU
<a href="#">JDK-8329109</a>	17	Threads::print_on() tries to print CPU time for terminated GC threads	PSU
<a href="#">JDK-8329126</a>	17, 21	No native wrappers generated anymore with -XX:-TieredCompilation after JDK-8251462	PSU
<a href="#">JDK-8329134</a>	17, 21	Reconsider TLAB zapping	PSU
<a href="#">JDK-8329258</a>	21	TailCall should not use frame pointer register for jump target	PSU
<a href="#">JDK-8329510</a>	11, 17, 21	Update ProblemList for JFileChooser/8194044/FileSystemRootTest.java	PSU
<a href="#">JDK-8329559</a>	11, 17, 21	Test javax/swing/JFrame/bug4419914.java failed because The End and Start buttons are not placed correctly and Tab focus does not move as expected	PSU
<a href="#">JDK-8329605</a>	17	hs_errfile generic events - move memory protections and nmethod flushes to separate sections	PSU
<a href="#">JDK-8329663</a>	17	hs_err file event log entry for thread adding/removing should print current thread	PSU
<a href="#">JDK-8329665</a>	21	fatal error: memory leak: allocating without ResourceMark	PSU
<a href="#">JDK-8329667</a>	17, 21	[macos] Issue with JTree related fix for JDK-8317771	PSU

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<a href="#">JDK-8329995</a>	11, 17, 21	Restricted access to <code>/proc</code> can cause JFR initialization to crash	PSU
<a href="#">JDK-8330027</a>	21	Identity hashes of archived objects must be based on a reproducible random seed	PSU
<a href="#">JDK-8330063</a>	11, 17, 21	Upgrade jQuery to 3.7.1	PSU
<a href="#">JDK-8330133</a>	21	libj2pkcs11.so crashes on some pkcs#11 v3.0 libraries	PSU
<a href="#">JDK-8330146</a>	21	<code>assert(!_thread_is_in_any_VTMS_transition())</code> failed	PSU
<a href="#">JDK-8330415</a>	8	Update system property for Java SE specification maintenance version	PSU
<a href="#">JDK-8330416</a>	11	Update system property for Java SE specification maintenance version	PSU
<a href="#">JDK-8330520</a>	21	linux clang build fails in <code>os_linux.cpp</code> with <code>static_assert</code> with no message is a C++17 extension	PSU
<a href="#">JDK-8330523</a>	11	Reduce runtime and improve efficiency of <code>KeepAliveTest</code>	PSU
<a href="#">JDK-8330524</a>	17	Linux ppc64le compile warning with clang in <code>os_linux_ppc.cpp</code>	PSU
<a href="#">JDK-8330576</a>	21	<code>ZYoungCompactionLimit</code> should have range check	PSU
<a href="#">JDK-8330611</a>	17, 21	AES-CTR vector intrinsic may read out of bounds (x86_64, AVX-512)	PSU
<a href="#">JDK-8330615</a>	17	avoid signed integer overflows in <code>zip_util.c</code> <code>readCen / hashN</code>	PSU
<a href="#">JDK-8330748</a>	21	<code>ByteArrayOutputStream.writeTo(OutputStream)</code> pins carrier	PSU
<a href="#">JDK-8330814</a>	21	Cleanups for <code>KeepAliveCache</code> tests	PSU

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<a href="#">JDK-8330819</a>	21	C2 SuperWord: bad dominance after pre-loop limit adjustment with base that has CastLL after pre-loop	PSU
<a href="#">JDK-8330849</a>	21	Add test to verify memory usage with recursive locking	PSU
<a href="#">JDK-8330981</a>	21	ZGC: Should not dedup strings in the finalizer graph	PSU
<a href="#">JDK-8331011</a>	17, 21	[XWayland] TokenStorage fails under Security Manager	PSU
<a href="#">JDK-8331063</a>	11, 17, 21	Some HttpClient tests don't report leaks	PSU
<a href="#">JDK-8331077</a>	17, 21	nroff man page update for jar tool	PSU
<a href="#">JDK-8331142</a>	21	Add test for number of loader threads in BasicDirectoryModel	PSU
<a href="#">JDK-8331153</a>	21	JFR: Improve logging of <code>jdk/jfr/api/consumer/filestream/TestOrdered.java</code>	PSU
<a href="#">JDK-8331405</a>	21	Shenandoah: Optimize ShenandoahLock with TTAS	PSU
<a href="#">JDK-8331411</a>	21, 23	Shenandoah: Reconsider spinning duration in ShenandoahLock	PSU
<a href="#">JDK-8331421</a>	21	ubsan: vmreg.cpp checking error member call on misaligned address	PSU
<a href="#">JDK-8331466</a>	11, 17	Problemlist <code>serviceability/dcmd/gc/RunFinalizationTest.java</code> on generic-all	PSU
<a href="#">JDK-8331495</a>	21	Limit <code>BasicDirectoryModel/LoaderThreadCount.java</code> to Windows only	PSU
<a href="#">JDK-8331518</a>	21	Tests should not use the "Classpath" exception form of the legal header	PSU

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<a href="#">JDK-8331572</a>	21	Allow using OopMapCache outside of STW GC phases	PSU
<a href="#">JDK-8331573</a>	21	Rename CollectedHeap::is_gc_active to be explicitly about STW GCs	PSU
<a href="#">JDK-8331575</a>	21	C2: crash when ConvL2I is split thru phi at LongCountedLoop	PSU
<a href="#">JDK-8331605</a>	17, 21	jdk/test/lib/TestMutuallyExclusivePlatformPredicates.java test failure	PSU
<a href="#">JDK-8331626</a>	21	unsafe.cpp:162:38: runtime error in index_oop_from_field_offset_long - applying non-zero offset 4563897424 to null pointer	PSU
<a href="#">JDK-8331714</a>	21	Make OopMapCache installation lock-free	PSU
<a href="#">JDK-8331731</a>	21	ubsan: relocInfo.cpp:155:30: runtime error: applying non-zero offset to null pointer	PSU
<a href="#">JDK-8331746</a>	11, 17, 21	Create a test to verify that the cmm id is not ignored	PSU
<a href="#">JDK-8331771</a>	21	ZGC: Remove OopMapCacheAlloc_lock ordering workaround	PSU
<a href="#">JDK-8331789</a>	21	ubsan: deoptimization.cpp:403:29: runtime error: load of value 208, which is not a valid value for type 'bool'	PSU
<a href="#">JDK-8331798</a>	11, 17, 21	Remove unused arg of checkErgonomics() in TestMaxHeapSizeTools.java	PSU
<a href="#">JDK-8331854</a>	21	ubsan: copy.hpp:218:10: runtime error: addition of unsigned offset to 0x7fc2b4024518 overflowed to 0x7fc2b4024510	PSU
<a href="#">JDK-8331863</a>	21	DUIterator_Fast used before it is constructed	PSU
<a href="#">JDK-8331885</a>	17, 21	C2: meet between unloaded and speculative types is not symmetric	PSU

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<a href="#">JDK-8331931</a>	21	JFR: Avoid loading regex classes during startup	PSU
<a href="#">JDK-8331999</a>	21	BasicDirectoryModel/LoaderThreadCount.java frequently fails on Windows in CI	PSU
<a href="#">JDK-8332113</a>	11, 17, 21	Update nsk.share.Log to be always verbose	PSU
<a href="#">JDK-8332154</a>	21	Memory leak in SynchronousQueue	PSU
<a href="#">JDK-8332174</a>	17, 21	Remove 2 (unpaired) RLO Unicode characters in ff_Adlm.xml	PSU
<a href="#">JDK-8332248</a>	17, 21	(fc) java/nio/channels/FileChannel/BlockDeviceSize.java failed with RuntimeException	PSU
<a href="#">JDK-8332424</a>	11, 17, 21	Update IANA Language Subtag Registry to Version 2024-05-16	PSU
<a href="#">JDK-8332431</a>	21	NullPointerException in JTable of SwingSet2	PSU
<a href="#">JDK-8332473</a>	21	ubsan: growableArray.hpp:290:10: runtime error: null pointer passed as argument 1, which is declared to never be null	PSU
<a href="#">JDK-8332490</a>	21	JMH org.openjdk.bench.java.util.zip.InflaterInputStreams.inflaterInputStreamRead OOM	PSU
<a href="#">JDK-8332499</a>	21	Gtest codestrings.validate_vm fail on linux x64 when hsd is present	PSU
<a href="#">JDK-8332524</a>	11, 17, 21, 23	Instead of printing "TLSv1.3," it is showing "TLS13"	PSU
<a href="#">JDK-8332589</a>	21	ubsan: unix/native/libjava/ProcessImpl_md.c:562:5: runtime error: null pointer passed as argument 2, which is declared to never be null	PSU
<a href="#">JDK-8332699</a>	21	ubsan: jfrEventSetting.inline.hpp:31:43: runtime error: index 163 out of bounds for type 'jfrNativeEventSetting [162]'	PSU

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<a href="#">JDK-8332717</a>	21	ZGC: Division by zero in heuristics	PSU
<a href="#">JDK-8332720</a>	21	ubsan: instanceClass.cpp:3550:76: runtime error: member call on null pointer of type 'struct Array'	PSU
<a href="#">JDK-8332818</a>	21, 23	ubsan: archiveHeapLoader.cpp:70:27: runtime error: applying non-zero offset 18446744073707454464 to null pointer	PSU
<a href="#">JDK-8332825</a>	21	ubsan: guardedMemory.cpp:35:11: runtime error: null pointer passed as argument 2, which is declared to never be null	PSU
<a href="#">JDK-8332885</a>	21	Clarify failure_handler self-tests	PSU
<a href="#">JDK-8332894</a>	21	ubsan: vmError.cpp:2090:26: runtime error: division by zero	PSU
<a href="#">JDK-8332898</a>	11, 17, 21	failure_handler: log directory of commands	PSU
<a href="#">JDK-8332903</a>	21	ubsan: opto/output.cpp:1002:18: runtime error: load of value 171, which is not a valid value for type 'bool'	PSU
<a href="#">JDK-8332904</a>	21	ubsan ppc64le: c1_LIRGenerator_ppc.cpp:581:21: runtime error: signed integer overflow: 9223372036854775807 + 1 cannot be represented in type 'long int'	PSU
<a href="#">JDK-8332905</a>	21	C2 SuperWord: bad AD file, with RotateRightV and first operand not a pack	PSU
<a href="#">JDK-8332920</a>	21	C2: Partial Peeling is wrongly applied for CmpU with negative limit	PSU
<a href="#">JDK-8332935</a>	21	Crash: assert(*lastPtr != 0) failed: Mismatched JNINativeInterface tables, check for new entries	PSU
<a href="#">JDK-8332936</a>	11, 17, 21	Test vmTestbase/metaspace/gc/watermark_70_80/TestDescription.java fails with no GC's recorded	PSU



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<a href="#">JDK-8332959</a>	21	C2: ZGC fails with 'Incorrect load shift' when invoking Object.clone() reflectively on an array	PSU
<a href="#">JDK-8333088</a>	21	ubsan: shenandoahAdaptiveHeuristics.cpp:245:44: runtime error: division by zero	PSU
<a href="#">JDK-8333093</a>	21	Incorrect comment in zAddress_aarch64.cpp	PSU
<a href="#">JDK-8333099</a>	21	Missing check for is_LoadVector in StoreNode::Identity	PSU
<a href="#">JDK-8333149</a>	21	ubsan : memset on nullptr target detected in jvmtiEnvBase.cpp get_object_monitor_usage	PSU
<a href="#">JDK-8333178</a>	21	ubsan: jvmti_tools.cpp:149:16: runtime error: null pointer passed as argument 2, which is declared to never be null	PSU
<a href="#">JDK-8333270</a>	17, 21	HandlersOnComplexResetUpdate and HandlersOnComplexUpdate tests fail with "Unexpected reference" if timeoutFactor is less than 1/3	PSU
<a href="#">JDK-8333277</a>	21	ubsan: mlib_ImageScanPoly.c:292:43: runtime error: division by zero	PSU
<a href="#">JDK-8333353</a>	17, 21	Delete extra empty line in CodeBlob.java	PSU
<a href="#">JDK-8333354</a>	21	ubsan: frame.inline.hpp:91:25: and src/hotspot/share/runtime/frame.inline.hpp:88:29: runtime error: member call on null pointer of type 'const struct SmallRegisterMap'	PSU
<a href="#">JDK-8333361</a>	21	ubsan,test : libHeapMonitorTest.cpp:518:9: runtime error: null pointer passed as argument 2, which is declared to never be null	PSU
<a href="#">JDK-8333363</a>	21	ubsan: instanceClass.cpp: runtime error: member call on null pointer of type 'struct AnnotationArray'	PSU

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<a href="#">JDK-8333366</a>	21	C2: CmpU3Nodes are not pushed back to worklist in PhaseCCP leading to non-fixpoint assertion failure	PSU
<a href="#">JDK-8333398</a>	17, 21	Uncomment the commented test in test/jdk/java/util/jar/JarFile/mrjar/MultiReleaseJar API.java	PSU
<a href="#">JDK-8333462</a>	21	Performance regression of new DecimalFormat() when compare to jdk11	PSU
<a href="#">JDK-8333542</a>	21	Breakpoint in parallel code does not work	PSU
<a href="#">JDK-8333622</a>	21	ubsan: relocInfo_x86.cpp:101:56: runtime error: pointer index expression with base (-1) overflowed	PSU
<a href="#">JDK-8333639</a>	21	ubsan: cppVtables.cpp:81:55: runtime error: index 14 out of bounds for type 'long int [1]'	PSU
<a href="#">JDK-8333652</a>	21, 23	RISC-V: compiler/vectorapi/VectorGatherMaskFoldingTest.java fails when using RVV	PSU
<a href="#">JDK-8333698</a>	17	[17u] TestJstatdRmiPort fails after JDK-8333667	PSU
<a href="#">JDK-8333716</a>	17, 21, 23	Shenandoah: Check for disarmed method before taking the nmethod lock	PSU
<a href="#">JDK-8333804</a>	11, 17, 21	java/net/httpclient/ForbiddenHeadTest.java threw an exception with 0 failures	PSU
<a href="#">JDK-8333837</a>	11	[11u] HexPrinterTest.java javac compile fails illegal start of expression	PSU
<a href="#">JDK-8333839</a>	11	[11u] LingeredAppTest.java fails Can't find source file: LingeredApp.java	PSU
<a href="#">JDK-8333887</a>	21, 23	ubsan: unsafe.cpp:247:13: runtime error: store to null pointer of type 'volatile int'	PSU
<a href="#">JDK-8334078</a>	21	RISC-V: TestIntVect.java fails after JDK-8332153 when running without RVV	PSU

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<a href="#">JDK-8334123</a>	21, 23	log the opening of Type 1 fonts	PSU
<a href="#">JDK-8334239</a>	21, 23	Introduce macro for ubsan method/function exclusions	PSU
<a href="#">JDK-8334297</a>	17, 21	(so) java/nio/channels/SocketChannel/OpenLeak.java should not depend on SecurityManager	PSU
<a href="#">JDK-8334332</a>	17, 21	TestIOException.java fails if run by root	PSU
<a href="#">JDK-8334333</a>	17, 21	MissingResourceCauseTestRun.java fails if run by root	PSU
<a href="#">JDK-8334335</a>	11, 17	[TESTBUG] Backport of 8279164 to 11u & 17u includes elements of JDK-8163327	PSU
<a href="#">JDK-8334339</a>	17, 21	Test java/nio/file/attribute/BasicFileAttributeView/CreationTime.java fails on alinux3	PSU
<a href="#">JDK-8334418</a>	11, 17, 21	Update IANA Language Subtag Registry to Version 2024-06-14	PSU
<a href="#">JDK-8334421</a>	21	assert(!oldbox.is_unbalanced()) failed: this should not be called for unbalanced region	PSU
<a href="#">JDK-8334482</a>	17, 21	Shenandoah: Deadlock when safepoint is pending during nmethods iteration	PSU
<a href="#">JDK-8334592</a>	21	ProblemList serviceability/jvmti/stress/StackTrace/NotSuspended/GetStackTraceNotSuspendedStressTest.java in jdk21 on all platforms	PSU
<a href="#">JDK-8334594</a>	21	Generational ZGC: Deadlock after OopMap rewrites in 8331572	PSU
<a href="#">JDK-8334600</a>	17, 21	TEST java/net/MulticastSocket/IPMulticastIF.java fails on linux-aarch64	PSU

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<a href="#">JDK-8334653</a>	8, 11, 17, 21, 23	ISO 4217 Amendment 177 Update	PSU
<a href="#">JDK-8334711</a>	11	[TEST_BUG] Compilation failed of MimeFormatsTest/MimeFormatsTest.java	PSU
<a href="#">JDK-8334769</a>	17, 21	Shenandoah: Move CodeCache_lock close to its use in ShenandoahConcurrentNMethodIterator	PSU
<a href="#">JDK-8334867</a>	21	Add back assertion from JDK-8325494	PSU
<a href="#">JDK-8334905</a>	8	[8u] The test java/awt/Mixing/AWT_Mixing/JButtonOverlapping.java started to fail after 8159690	PSU
<a href="#">JDK-8335007</a>	21	Inline OopMapCache table	PSU
<a href="#">JDK-8335134</a>	21	Test com/sun/jdi/BreakpointOnClassPrepare.java timeout	PSU
<a href="#">JDK-8335150</a>	21	Test LogGeneratedClassesTest.java fails on rpmbuild mock environment	PSU
<a href="#">JDK-8335237</a>	21	ubsan: vtableStubs.hpp is_vtable_stub exclude from ubsan checks	PSU
<a href="#">JDK-8335283</a>	21	Build failure due to 'no_sanitize' attribute directive ignored	PSU
<a href="#">JDK-8335409</a>	21	Can't allocate and retain memory from resource area in frame::oops_interpreted_do oop closure after 8329665	PSU
<a href="#">JDK-8335493</a>	21	check_gc_overhead_limit should reset SoftRefPolicy::_should_clear_all_soft_refs	PSU
<a href="#">JDK-8335536</a>	17, 21, 23	Fix assertion failure in IdealGraphPrinter when append is true	PSU
<a href="#">JDK-8335552</a>	8	[8u] JDK-8303466 backport to 8u requires 3::Identity signature fixes	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8335743</a>	21	jhsdb jstack cannot print some information on the waiting thread	PSU
<a href="#">JDK-8335775</a>	17, 21, 23	Remove extraneous 's' in comment of rawmonitor.cpp test file	PSU
<a href="#">JDK-8335803</a>	11	SunJCE cipher throws NPE for un-extractable RSA keys	PSU
<a href="#">JDK-8335808</a>	17	update for deprecated sprintf for jfrTypeSetUtils	PSU
<a href="#">JDK-8335851</a>	8	[8u] Test JMXStartStopTest.java fails after JDK-8334415	PSU
<a href="#">JDK-8335894</a>	8	[8u] Fix SupplementalJapaneseEraTest.java for jdks with symlinked conf dir	PSU
<a href="#">JDK-8335904</a>	21	Fix invalid comment in ShenandoahLock	PSU
<a href="#">JDK-8335918</a>	17	update for deprecated sprintf for jvmti	PSU
<a href="#">JDK-8335967</a>	17, 21	"text-decoration: none" does not work with "A" HTML tags	PSU
<a href="#">JDK-8336284</a>	21	Test TestCihbdbJstackLock.java/TestJhsdbJstackLock.java fails with -Xcomp after JDK-8335743	PSU
<a href="#">JDK-8336301</a>	11, 17, 21, 23	test/jdk/java/nio/channels/AsyncCloseAndInterrupt.java leaves around a FIFO file upon test completion	PSU
<a href="#">JDK-8336926</a>	21	jdk/internal/util/ReferencedKeyTest.java can fail with ConcurrentModificationException	PSU
<a href="#">JDK-8337038</a>	17, 21	Test java/nio/file/attribute/BasicFileAttributeView/CreationTime.java should set as /native	PSU
<a href="#">JDK-8337110</a>	8	[8u] TestNoEagerReclaimOfHumongousRegions.java should be in gc/g1 directory	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8337312</a>	8	[8u] Windows x86 VS2010 build broken by JDK-8320097	PSU
<a href="#">JDK-8337622</a>	21	IllegalArgumentException in java.lang.reflect.Field.get	PSU
<a href="#">JDK-8337664</a>	8, 11, 17, 21, 23	Distrust TLS server certificates issued after Oct 2024 and anchored by Entrust Root CAs	PSU
<a href="#">JDK-8337669</a>	17	[17u] Backport of JDK-8284047 missed to delete a file	PSU
<a href="#">JDK-8338139</a>	11, 17, 21	{ClassLoader,Memory}MXBean::isVerbose methods are inconsistent with their setVerbose methods	PSU
<a href="#">JDK-8338696</a>	17, 21, 23	(fs) BasicFileAttributes.creationTime() falls back to epoch if birth time is unavailable (Linux)	PSU
<a href="#">JDK-8339869</a>	17, 21	[21u] Test CreationTime.java fails with UnsatisfiedLinkError after 8334339	PSU
<a href="#">JDK-8341057</a>	8, 11, 17, 21, 23	Add 2 SSL.com TLS roots	PSU
<a href="#">JDK-8341059</a>	8, 11, 17, 21, 23	Change Entrust TLS distrust date to November 12, 2024	PSU
<a href="#">JDK-8341989</a>	21	[21u] Back out JDK-8327501 and JDK-8328366	PSU

## OpenJFX Fixes and Enhancements

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

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8282359</a>	11	Intermittent WebKit build failure on Windows: C1090: PDB API call failed, error code 23	CPU,PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8328994</a>	8, 11, 17, 21, 23	Update WebKit to 619.1	CPU,PSU
<a href="#">JDK-8331765</a>	8, 11, 17, 21, 23	Websocket callbacks are not executed after WebKit 617.1 update	CPU,PSU
<a href="#">JDK-8334713</a>	8, 11, 17, 21, 23	WebKit build failed on LoongArch64 because currentStackPointer is undefined	CPU,PSU
<a href="#">JDK-8335548</a>	8, 11, 17, 21, 23	testCookieEnabled fails with WebKit 619.1	CPU,PSU
<a href="#">JDK-8336798</a>	8, 11, 17, 21, 23	DRT test cssrounding.html test for linear layout fails with WebKit 619.1	CPU,PSU
<a href="#">JDK-8338306</a>	8, 11, 17, 21, 23	WebView Drag and Drop fails with WebKit 619.1	CPU,PSU
<a href="#">JDK-8338307</a>	8, 11, 17, 21, 23	Additional WebKit 619.1 fixes from WebKitGTK 2.44.3	CPU,PSU
<a href="#">JDK-8338478</a>	17, 21, 23	[macos] Crash in CoreText with certain strings using JDK 22 or later	CPU,PSU
<a href="#">JDK-8087444</a>	21	CornerRadii with different horizontal and vertical values treated as uniform	PSU
<a href="#">JDK-8088172</a>	21	Mac: On German keyboard, pressing <+><q> inserts two apostrophes instead of one	PSU
<a href="#">JDK-8088923</a>	21	IOOBE when adding duplicate categories to the BarChart	PSU
<a href="#">JDK-8089373</a>	21	Translation from character to key code is not sufficient	PSU
<a href="#">JDK-8089803</a>	21	[Mac, TextArea] Japanese IME, caret moves to the next line when pressing Return to select a candidate.	PSU
<a href="#">JDK-8090267</a>	21	JFXPanel Input Problem	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8092102</a>	21	Labeled: textTruncated property	PSU
<a href="#">JDK-8146918</a>	21	ConcurrentModificationException in MediaPlayer	PSU
<a href="#">JDK-8186188</a>	21	TableColumnHeader: initial auto-size broken if has graphic	PSU
<a href="#">JDK-8193286</a>	21	IntegerSpinnerFactory does not wrap value correctly	PSU
<a href="#">JDK-8198830</a>	21	BarChart: auto-range of CategoryAxis not working on dynamically setting data	PSU
<a href="#">JDK-8207379</a>	21	Robot screen capture test fails with HiDPI at some screen locations	PSU
<a href="#">JDK-8242553</a>	21	IntegerSpinner and DoubleSpinner do not wrap around values correctly in some cases	PSU
<a href="#">JDK-8255679</a>	21	RegionBackgroundImageUITest.unalignedImage_Cover fails because of wrong color	PSU
<a href="#">JDK-8260013</a>	21	Snapshot does not work for nodes in a subscene	PSU
<a href="#">JDK-8267565</a>	21	Support "@3x" and greater high-density image naming convention	PSU
<a href="#">JDK-8270996</a>	21	javadoc: missing comments in serialized classes	PSU
<a href="#">JDK-8271865</a>	21	SortedList::getViewIndex behaves not correctly for some index values	PSU
<a href="#">JDK-8273349</a>	21	Check uses of Stream::peek in controls and replace as needed	PSU
<a href="#">JDK-8273657</a>	21	TextField: all text content must be selected initially	PSU
<a href="#">JDK-8278021</a>	21	Fix warnings in macOS glass native code and treat warnings as errors	PSU
<a href="#">JDK-8279140</a>	21	ComboBox can lose selected value on item change via setAll	PSU



OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8282999</a>	21	Add support for EXT-X-MEDIA tag in HTTP Live Streaming	PSU
<a href="#">JDK-8289115</a>	21	Touch events is not dispatched after upgrade to JAVAFX17+	PSU
<a href="#">JDK-8295945</a>	21	Revert unintended change to copyright start year	PSU
<a href="#">JDK-8299738</a>	21	ISE if Platform::exit called with fullScreen Stage on macOS 13	PSU
<a href="#">JDK-8301900</a>	21	TextArea: Committing text with ENTER in an IME window inserts newline	PSU
<a href="#">JDK-8306322</a>	21	JDK8130122Test fails intermittently	PSU
<a href="#">JDK-8307117</a>	21	TextArea: wrapText property ignored when changing font	PSU
<a href="#">JDK-8307980</a>	21	Rotate Transformation never invalidates inverseCache	PSU
<a href="#">JDK-8308955</a>	21	MediaPlayer/AudioClip skip data on seek/loop	PSU
<a href="#">JDK-8311124</a>	21	[Windows] User installed font 8281327 fix does not work for all cases	PSU
<a href="#">JDK-8311895</a>	21	CSS Transitions	PSU
<a href="#">JDK-8312603</a>	21	ArrayIndexOutOfBoundsException in Marlin when scaleX is 0	PSU
<a href="#">JDK-8313138</a>	21	Scrollbar Keyboard enhancement	PSU
<a href="#">JDK-8314215</a>	21	Trailing Spaces before Line Breaks Affect the Center Alignment of Text	PSU
<a href="#">JDK-8314754</a>	21	Minor ticks are not getting updated both the axes in LineChart	PSU
<a href="#">JDK-8316372</a>	21	Monkey Tester Application Part 3	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8319779</a>	17, 21, 23	SystemMenu: memory leak due to listener never being removed	PSU
<a href="#">JDK-8319844</a>	21	Text/TextFlow.hitTest() is incorrect in RTL orientation	PSU
<a href="#">JDK-8320563</a>	21	Remove D3D9 code paths in favor of D3D9Ex	PSU
<a href="#">JDK-8320912</a>	21	IME should commit on focus change	PSU
<a href="#">JDK-8320965</a>	21	Scrolling on a touch enabled display fails on Wayland	PSU
<a href="#">JDK-8321603</a>	21	Bump minimum JDK version for JavaFX to JDK 21	PSU
<a href="#">JDK-8322215</a>	21	[win] OS events that close the stage can cause Glass to reference freed memory	PSU
<a href="#">JDK-8322619</a>	21	Parts of SG no longer update during rendering - overlapping - culling - dirty	PSU
<a href="#">JDK-8322748</a>	21	Caret blinking in JavaFX should only stop when caret moves	PSU
<a href="#">JDK-8322784</a>	21	JFXPanel calls InputMethodRequests on wrong thread	PSU
<a href="#">JDK-8322964</a>	21	Optimize performance of CSS selector matching	PSU
<a href="#">JDK-8323511</a>	21	Scrollbar Click jumps inconsistent amount of pixels	PSU
<a href="#">JDK-8323543</a>	21	NPE when table items are set to null	PSU
<a href="#">JDK-8323615</a>	21	PopupControl.skin.setSkin(Skin) fails to call dispose() on discarded Skin	PSU
<a href="#">JDK-8323787</a>	17, 21, 23	Mac System MenuBar throws IOB exception	PSU
<a href="#">JDK-8324182</a>	21	Deprecate for removal SimpleSelector and CompoundSelector classes	PSU
<a href="#">JDK-8324232</a>	21	KeyEvent.getCode() is null inside JFXPanel	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8324237</a>	21	Typo in comment in GlassApplication.m	PSU
<a href="#">JDK-8324239</a>	21	JFXPanelHiDPITest fails on Windows 11	PSU
<a href="#">JDK-8324270</a>	21	Update boot JDK to 21.0.2	PSU
<a href="#">JDK-8324327</a>	21	ColorPicker shows a white rectangle on clicking on picker	PSU
<a href="#">JDK-8324658</a>	21	Allow animation play/start/stop/pause methods to be called on any thread	PSU
<a href="#">JDK-8324797</a>	21	Code example in JavaDoc of ObservableValue#when doesn't compile	PSU
<a href="#">JDK-8324879</a>	21	Platform-specific preferences keys are incorrect for Windows toolkit	PSU
<a href="#">JDK-8324939</a>	21	Editable TableView loses focus after commit	PSU
<a href="#">JDK-8325073</a>	21	javadoc warnings: missing @param tags and other issues	PSU
<a href="#">JDK-8325075</a>	21	Enable -Werror for javadoc to fail on any warnings	PSU
<a href="#">JDK-8325093</a>	21	Update CONTRIBUTING.md for build jdk version	PSU
<a href="#">JDK-8325402</a>	21	TreeTableRow updateItem() does not check item with isItemChanged(..) unlike all other cell implementations	PSU
<a href="#">JDK-8325445</a>	21, 23	[macOS] Colors are not displayed in sRGB color space	PSU
<a href="#">JDK-8325566</a>	21	[TestBug] Util.shutdown() to hide ALL Windows	PSU
<a href="#">JDK-8325591</a>	21	[Mac] DRAG_DONE reports null transferMode when destination is external	PSU
<a href="#">JDK-8325798</a>	21	Spinner throws uncatchable exception on tab out from garbled text	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8325873</a>	21	Update JDK_DOCS property to point to JDK 21 docs	PSU
<a href="#">JDK-8325900</a>	21	Emit a warning on macOS if AWT has set the NSAppearance	PSU
<a href="#">JDK-8326618</a>	21	Replace usage of deprecated method getId() in Thread	PSU
<a href="#">JDK-8326619</a>	21	Stage.sizeToScene() on maximized/fullscreen Stage breaks the Window	PSU
<a href="#">JDK-8326712</a>	21	Robot tests fail on XWayland	PSU
<a href="#">JDK-8327255</a>	21	javac lint warnings: removal, missing-explicit-ctor	PSU
<a href="#">JDK-8327471</a>	21	RTLTextFlowCharacterIndexTest fails on Linux	PSU
<a href="#">JDK-8327482</a>	21	Fix missing image resource in HelloImage toy app	PSU
<a href="#">JDK-8327727</a>	21	Changing the row factory of a TableView does not recreate the rows	PSU
<a href="#">JDK-8328399</a>	21	Add hs_err_pid* to .gitignore	PSU
<a href="#">JDK-8328400</a>	21	Minor Cleanup	PSU
<a href="#">JDK-8328577</a>	21	Toolbar's overflow button overlaps the items	PSU
<a href="#">JDK-8328603</a>	21	HLS video stream fails to render consistently	PSU
<a href="#">JDK-8328667</a>	21	[Testbug] Enable ignored Spinner unit tests	PSU
<a href="#">JDK-8328718</a>	21	Remove unused imports in javafx.controls	PSU
<a href="#">JDK-8328739</a>	21	Remove unused imports in javafx.graphics	PSU
<a href="#">JDK-8328742</a>	21	Remove unused imports in manual tests	PSU
<a href="#">JDK-8328745</a>	21	Remove unused imports in system tests	PSU
<a href="#">JDK-8328746</a>	21	Remove unused imports in demo apps	PSU
<a href="#">JDK-8328750</a>	21	[TestBug] Improve Stub Font Support	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8328751</a>	21	Fix missing @Overrides in modules except javafx.web	PSU
<a href="#">JDK-8328754</a>	21	Fix missing @Overrides in test	PSU
<a href="#">JDK-8328811</a>	21	Fix missing @Overrides in demos	PSU
<a href="#">JDK-8328818</a>	21	Fix Decora JSL to remove missing @Override warnings	PSU
<a href="#">JDK-8328820</a>	21	Remove unused imports in javafx.swing	PSU
<a href="#">JDK-8329821</a>	21	[Linux] When using i3 WM, menus are incorrectly sized	PSU
<a href="#">JDK-8330304</a>	21	MenuBar: Invisible Menu works incorrectly with keyboard arrows	PSU
<a href="#">JDK-8330590</a>	21	TextInputControl: previous word fails with Bhojpuri characters	PSU
<a href="#">JDK-8330701</a>	21	Fix Eclipse project in tests/manual/text	PSU
<a href="#">JDK-8331214</a>	21	Doc: update spec for SpinnerFactory classes	PSU
<a href="#">JDK-8331319</a>	21	IME Window breaks after popup menu	PSU
<a href="#">JDK-8331603</a>	21	Cleanup native AbstractSurface methods getRGBImpl, setRGBImpl	PSU
<a href="#">JDK-8331616</a>	21	ChangeListener is not triggered when the InvalidationListener is removed	PSU
<a href="#">JDK-8332251</a>	21	javadoc: incorrect method references in Region and PopupControl	PSU
<a href="#">JDK-8332313</a>	21	Update code review guidelines	PSU
<a href="#">JDK-8332732</a>	21	Clean up non-standard use of /// comments in JavaFX	PSU
<a href="#">JDK-8332748</a>	21	Grammatical errors in animation API docs	PSU
<a href="#">JDK-8332863</a>	21	Crash in JPEG decoder if we enable MEM_STATS	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8333147</a>	21	update maven classifier syntax to recent gradle version	PSU
<a href="#">JDK-8334124</a>	21, 23	Rendering issues with CSS "text-shadow" in WebView	PSU
<a href="#">JDK-8334138</a>	21	Suppress removal warnings for sun.misc.Unsafe memory access methods	PSU
<a href="#">JDK-8334143</a>	21	Suppress remaining removal warnings for internal methods and classes	PSU
<a href="#">JDK-8334161</a>	21	Enable -Werror for javac tasks to fail on any warnings	PSU
<a href="#">JDK-8334656</a>	11, 17, 21	Enable issuestitle check	PSU
<a href="#">JDK-8334657</a>	11, 17, 21	Enable binary check	PSU
<a href="#">JDK-8334731</a>	21	GHA: build on macOS / aarch64	PSU
<a href="#">JDK-8334739</a>	21	XYChart and (Stacked)AreaChart properties return incorrect beans	PSU
<a href="#">JDK-8334874</a>	17, 21, 23	Horizontal scroll events from touch pads should scroll the TabPane tabs	PSU
<a href="#">JDK-8335216</a>	21	[windows] Missing error check for GetSystemDirectory in glass	PSU
<a href="#">JDK-8335630</a>	21	Crash if Platform::exit called with fullScreen Stage on macOS 14	PSU
<a href="#">JDK-8335633</a>	21	Missing @Override in Dimension	PSU
<a href="#">JDK-8336272</a>	21	SizeToSceneTest: fullScreen tests fail on Ubuntu 22.04	PSU
<a href="#">JDK-8336277</a>	21, 23	Colors are incorrect when playing H.265/HEVC on Windows 11	PSU
<a href="#">JDK-8336938</a>	21, 23	Update libFFI to 3.4.6	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
<a href="#">JDK-8336939</a>	21, 23	Update Glib to 2.80.4	PSU
<a href="#">JDK-8336940</a>	21, 23	Update GStreamer to 1.24.6	PSU
<a href="#">JDK-8336941</a>	21, 23	Update libxslt to 1.1.42	PSU
<a href="#">JDK-8337481</a>	21, 23	File API: file.name contains path instead of name	PSU
<a href="#">JDK-8338701</a>	21, 23	Provide media support for libavcodec version 61	PSU
<a href="#">JDK-8338886</a>	21, 23	JavaFX debug builds fail on macOS	PSU

## Fixes and Enhancements Specific to Azul Zulu Builds of OpenJDK

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

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-63270	7	fastdebug build: java -version fails with ClassNotFoundException	CPU,PSU
ZULU-65256	21	Verify statx permissions	CPU,PSU
ZULU-65659	8, 17, 21, 23	Component info fails to build for jfx zulu23.0.0+101	CPU,PSU
ZULU-66513	8	TestMissingSafepointOnTryCatch needs a correct Util	CPU,PSU
ZULU-66617	6, 7, 8	Improve freetype TPL processing	CPU,PSU
ZULU-54282	17, 21	Support C/R through Minicriu	PSU
ZULU-59319		Minicriu restoree is not debuggable	PSU
ZULU-63336	11	solaris: libawt fails to use isinf() after JDK-8210988	PSU
ZULU-63513	8, 17	Workaround: conditionally force FT_LOAD_RENDER	PSU
ZULU-63749	17, 21	VirtualAllocCommitUncommitRecommit.java sometimes hangs	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-64014	21	[CRaC] jdk/crac/fileDescriptors/PollerTest.java test hangs on any windows host in builds 22.32+15-crac, 22.32+16-crac, 21.36+17-crac, 21.36+18-crac	PSU
ZULU-64029	17, 21	[CRaC] jdk/crac/fileDescriptors/JrtFsTest.java test fails on all windows hosts in builds 17.52-crac, 21.36-crac, 22.32-crac	PSU
ZULU-64052		Enable license IDs reporting in SBOM	PSU
ZULU-64308	21	move jfx23 linux builds to AlmaLinux8	PSU
ZULU-64312	8, 11, 17	Bouncy Castle FIPS 2 implementation	PSU
ZULU-64314	21	Enable ControlFlowGuard for windows builds	PSU
ZULU-65158	17, 21	CRaC engine cannot be executed on Windows	PSU
ZULU-65271	21	Verify statx permissions	PSU
ZULU-65281	8	Use build-tools for embedded builds	PSU
ZULU-65283	8	Fix CPE verification procedure	PSU
ZULU-65284	8	Stripped source bundle generation	PSU
ZULU-65287		Google Cloud Run: intermittent Can't open 1/clear_refs	PSU
ZULU-65419		[warp] Install brk seccomp filter even if prctl fails	PSU
ZULU-65420	21, 23	Handle boot-id not ending with newline	PSU
ZULU-65421	23	Use alternative CRaC restore parameters storage	PSU
ZULU-65433	8	zulu8 jar is not compressed by default	PSU
ZULU-65474	8	SA build failure after 8075511	PSU
ZULU-65577	8	CR/PREH product build failures	PSU
ZULU-65593	17, 21	Fix CPUFeatures breakage of clang compilation	PSU
ZULU-65656		JDK-8299234: JMX Repository.query performance	PSU



Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-66014	21, 23	Automatic CRaC support for LinuxWatchService	PSU
ZULU-66461	11	[zulu11] Hash of jdk.scripiting.nashorn differs to expected hash recorded in java.base	PSU
ZULU-66481	8	Build failure after removing duplicate license files	PSU
ZULU-66523	8	[zulu8] BCFIPS v2.0.0 causes failures for Sun* algorithms	PSU
ZULU-66614	8	[8u] configure option --with-sysroot clears --with-extra-cflags	PSU
ZULU-66624	8	zulu8-emb: wrong ADLC compiler flags for old GCC	PSU
ZULU-66635	8, 11, 17	Build flag to select FIPS 1.x / 2.x	PSU
ZULU-66652	8	JDK-8301118: Ignore allow and disallow options for java.security.manager System Property	PSU
ZULU-66653	11	JDK-8301118: Ignore allow and disallow options for java.security.manager System Property	PSU
ZULU-66763	23	All lib*.so are executable, not only warp	PSU
ZULU-66856	17, 21, 23	split Warp components	PSU
ZULU-66858		Warp Alpine support	PSU
ZULU-67092	8, 11, 17, 21	Use CRS component in zulu	PSU
ZULU-67093	11, 17	Use hsdis component in zulu	PSU
ZULU-67234	8	Add WITH_FIPS* to zulu8 .dependencies	PSU

## Fixes and Enhancements Specific to Azul Zulu Builds of OpenJDK With JavaFX

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

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-65651	8, 11, 17, 21, 23	Update to GCC 13.2.0 on Linux	CPU,PSU
ZULU-65911	8, 11, 17, 21, 23	SVGTest.testSVGRenderingWithGradient fails on linux-aarch64	CPU,PSU
ZULU-66758	8, 11, 17, 21, 23	Test test.javafx.scene.web.DOMTest.testEventListener Cascade fails on win32	CPU,PSU
ZULU-56899	21	update version test for zulu jfx GA	PSU
ZULU-60353	8	tests in test.javafx.print package fail on wi2019 for zulu8	PSU
ZULU-66482	21, 23	test.scenegraph.functional.mix.SpinnerTest fails	PSU

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