



Azul Zulu builds of OpenJDK

October 2024 Quarterly Update

Release Notes

Revision 1.2

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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"> • Added missing issues to the OpenJDK table. • Added TPL for BSD-2-Clause used in CRaC Warp. • Extended description of the FIPS changes. |
| 1.2 | November 14, 2024 | Added Know Issues for CRaC |

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:

- **Subscriber Availability (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 a use doesn't contaminate the code or intellectual property of such software with any license requirements. SA builds may support configurations and features that are unavailable to free users.
- **Community Availability (CA)** distributions 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 doesn't impact you.

The migration from Bouncy Castle 1.x to 2.0 is a breaking change, which will be rolled out gradually. 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.

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.trustSerializedData` 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, Warp, which no longer needs root privileges. The initial implementation, based on CRIU, 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 | n/a | n/a |
| CoreOS | n/a | | | | | n/a | 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 | n/a |
| Linux (ARM 32-bit Hard-Float) | | | | | | | | | |
| Ubuntu 18.04 [4] | n/a | n/a | | | | n/a | n/a | n/a | n/a |
| Raspbian 10 Buster [4] | n/a | 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 | 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 | 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 |
| Debian 7 Wheezy [8] | 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 |
| 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 full CRaC support and the Warp engine. Currently available on Linux on `x86_64` (using `GLIBC`), and as preview (EA) for Alpine Linux.
-  : 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 3.16 |  |  |  |  |  |  |
| 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

CRaC Warp Engine Permission Denied

On some systems, Name Service Cache Daemon (NSCD) may result in the Java process having a file mapped into memory despite lack of permissions to open that file. This leads to a restore error:

```
warp: error: Cannot open mapped file /var/lib/nscd/passwd: Permission denied
```

To work around such a problem, NSCD can be configured to disable the caching: set `enable-cache ... no` in `/etc/nscd.conf`. Alternatively, you can disable NSCD with `sudo systemctl stop nscd`.

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 |
|--------------------------------|---|----------|--------------------------|------------|---------------|----------------|------------------|---------------|-----------|-----------------|-----------|--------------|-----------------------------|--------|
| CVE-2023-42950 | JavaFX (WebKitGTK) | Multiple | Yes | 7.5 | Network | High | None | Required | Unchanged | High | High | High | 23, 21, 17, 11, 8 | Note 1 |
| CVE-2024-25062 | JavaFX (libxml2) | Multiple | Yes | 7.5 | Network | Low | None | None | Unchanged | None | None | High | 23, 21, 17, 11, 8 | Note 1 |
| CVE-2024-21235 | Hotspot | Multiple | Yes | 4.8 | Network | High | None | None | Unchanged | Low | Low | None | 23, 21, 17, 11, 8, 7, 6 | Note 2 |
| CVE-2024-21208 | Networking | Multiple | Yes | 3.7 | Network | High | None | None | Unchanged | None | None | Low | 23, 21, 17, 11, 8, 7, 6 | Note 1 |
| CVE-2024-21210 | Hotspot | Multiple | Yes | 3.7 | Network | High | None | None | Unchanged | None | Low | None | 23, 21, 17, 11, 8, 7, 6 | Note 2 |
| CVE-2024-21217 | Serialization | Multiple | Yes | 3.7 | Network | High | None | None | Unchanged | None | None | Low | 23, 21, 17, 11, 8, 7, 6 | Note 2 |
| CVE-2024-36138 | Oracle GraalVM for JDK: Node (Node.js) | Multiple | Yes | 8.1 | Network | High | None | None | Unchanged | High | High | High | None | |
| CVE-2024-21211 | 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 |
|-----------------------------|-------------------------|--------------------------------|---------|
| JDK-8307383 | 11, 17, 21, 23 | Enhance DTLS connections | CPU,PSU |
| JDK-8307769 | 6, 7, 8, 11, 17, 21 | Improve Exception support | CPU,PSU |
| JDK-8311208 | 17, 21, 23 | Improve CDS Support | CPU,PSU |
| JDK-8328726 | 6, 7, 8, 11, 17, 21, 23 | Better Kerberos support | CPU,PSU |
| JDK-8330282 | 8, 11, 17, 21, 23 | Upgrade SQLite | CPU,PSU |
| JDK-8332643 | 6, 7, 8, 11, 17 | Better Location requests | CPU,PSU |
| JDK-8335713 | 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 |
|-----------------------------|-------------------|--|---------|
| JDK-8179502 | 17 | Enhance OCSP, CRL and Certificate Fetch Timeouts | CPU,PSU |
| JDK-8189131 | 7 | Open-source the Oracle JDK Root Certificates | CPU,PSU |
| JDK-8189949 | 7 | Remove Baltimore Cybertrust Code Signing CA | CPU,PSU |
| JDK-8191031 | 7 | Remove several Symantec Root CAs | CPU,PSU |
| JDK-8191844 | 7 | Remove SECOM root (secomevrootca1) | CPU,PSU |
| JDK-8195774 | 7 | Add Entrust root certificates | CPU,PSU |
| JDK-8195793 | 7 | Remove GTE CyberTrust Global Root | CPU,PSU |

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

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

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

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

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


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

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

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

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

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|--|---------|
| JDK-8281944 | 17 | JavaDoc throws java.lang.IllegalStateException: ERRONEOUS | PSU |
| JDK-8282354 | 17 | Remove dependancy of TestHttpServer, HttpTransaction, HttpCallback from open/test/jdk/tests | PSU |
| JDK-8282526 | 17 | Default icon is not painted properly | PSU |
| JDK-8283223 | 21 | gc/stringdedup/TestStringDeduplicationFullGC.java#Parallel failed with "RuntimeException: String verification failed" | PSU |
| JDK-8283728 | 17 | jdk.hotspot.agent: Wrong location for RISC64ThreadContext.java | PSU |
| JDK-8284316 | 17 | Support accessibility ManualTestFrame.java for non SwingSet tests | PSU |
| JDK-8284585 | 11, 17 | PushPromiseContinuation test fails intermittently in timeout | PSU |
| JDK-8284771 | 8 | java/util/zip/CloseInflaterDeflaterTest.java failed with "AssertionError: Expected IOException to be thrown, but nothing was thrown" | PSU |
| JDK-8285497 | 17 | Add system property for Java SE specification maintenance version | PSU |
| JDK-8286781 | 11 | Replace the deprecated/obsolete gethostbyname and inet_addr calls | PSU |
| JDK-8287325 | 21 | AArch64: fix virtual threads with -XX:UseBranchProtection=pac-ret | PSU |
| JDK-8288568 | 17 | Reduce runtime of java.security microbenchmarks | PSU |
| JDK-8289182 | 17 | NMT: MemTracker::baseline should return void | PSU |
| JDK-8290966 | 17 | G1: Record number of PLAB filled and number of direct allocations | PSU |

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|--|---------|
| JDK-8299677 | 8 | Formatter.format might take a long time to format an integer or floating-point | PSU |
| JDK-8299779 | 17 | Test tools/jpackage/share/jdk/jpackage/tests/MainClassTest.java timed out | PSU |
| JDK-8299790 | 21 | os::print_hex_dump is racy | PSU |
| JDK-8299813 | 17, 21, 23 | java/nio/channels/DatagramChannel/Disconnect.java fails with jtreg test timeout due to lost datagram | PSU |
| JDK-8299971 | 17 | Remove metaprogramming/conditional.hpp | PSU |
| JDK-8299972 | 17 | Remove metaprogramming/removeReference.hpp | PSU |
| JDK-8300169 | 17 | Build failure with clang-15 | PSU |
| JDK-8300260 | 17 | Remove metaprogramming/isSame.hpp | PSU |
| JDK-8300264 | 17 | Remove metaprogramming/isPointer.hpp | PSU |
| JDK-8300265 | 17 | Remove metaprogramming/isSigned.hpp | PSU |
| JDK-8300910 | 17 | Remove metaprogramming/integralConstant.hpp | PSU |
| JDK-8301132 | 17 | Test update for deprecated sprintf in Xcode 14 | PSU |
| JDK-8301189 | 11 | validate-source fails after JDK-8298873 | PSU |
| JDK-8301200 | 17 | Don't scale timeout stress with timeout factor | PSU |
| JDK-8301274 | 17 | update for deprecated sprintf for security components | PSU |
| JDK-8301279 | 17 | update for deprecated sprintf for management components | PSU |
| JDK-8301686 | 17, 21 | TLS 1.3 handshake fails if server_name doesn't match resuming session | PSU |
| JDK-8301704 | 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 |
|-----------------------------|-------------------|--|---------|
| JDK-8302495 | 17 | update for deprecated sprintf for java.desktop | PSU |
| JDK-8302800 | 17 | Augment NaN handling tests of FDLIBM methods | PSU |
| JDK-8303216 | 11, 17 | Prefer ArrayList to LinkedList in sun.net.httpserver.ServerImpl | PSU |
| JDK-8303466 | 8, 11, 17 | C2: failed: malformed control flow. Limit type made precise with MaxL/MinL | PSU |
| JDK-8303527 | 17 | update for deprecated sprintf for jdk.hotspot.agent | PSU |
| JDK-8303617 | 17 | update for deprecated sprintf for jdk.jdwp.agent | PSU |
| JDK-8303830 | 17 | update for deprecated sprintf for jdk.accessibility | PSU |
| JDK-8303891 | 17 | Speed up Zip64SizeTest using a small ZIP64 file | PSU |
| JDK-8303920 | 17, 21 | Avoid calling out to python in DataDescriptorSignatureMissing test | PSU |
| JDK-8303942 | 17 | os::write should write completely | PSU |
| JDK-8303965 | 11, 17 | java.net.http.HttpClient should reset the stream if response headers contain malformed header fields | PSU |
| JDK-8304375 | 17 | jdk/jfr/api/consumer/filestream/TestOrdered.java failed with "Expected at least some events to be out of order! Reuse = false" | PSU |
| JDK-8304962 | 17 | sun/net/www/http/KeepAliveCache/B5045306.java: java.lang.RuntimeException: Failed: Initial Keep Alive Connection is not being reused | PSU |
| JDK-8304963 | 17 | HttpServer closes connection after processing HEAD after JDK-7026262 | PSU |
| JDK-8305072 | 11, 17, 21 | Win32ShellFolder2.compareTo is inconsistent | PSU |
| JDK-8305079 | 11, 17 | Remove finalize() from compiler/c2/Test719030 | PSU |
| JDK-8305081 | 11, 17 | Remove finalize() from test/hotspot/jtreg/compiler/runtime/Test8168712 | PSU |

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

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

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

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

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

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

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

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

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

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

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|--|---------|
| JDK-8324781 | 21 | runtime/Thread/TestAlwaysPreTouchStacks.java failed with Expected a higher ratio between stack committed and reserved | PSU |
| JDK-8324808 | 21 | Manual printer tests have no Pass/Fail buttons, instructions close set 3 | PSU |
| JDK-8324933 | 17 | ConcurrentHashMap::statistics_calculate synchronization is expensive | PSU |
| JDK-8324969 | 21 | C2: prevent elimination of unbalanced coarsened locking regions | PSU |
| JDK-8324983 | 21 | Race in CompileBroker::possibly_add_compiler_threads | PSU |
| JDK-8325022 | 11, 17, 21 | Incorrect error message on client authentication | PSU |
| JDK-8325037 | 21 | x86: enable and fix hotspot/jtreg/compiler/vectorization/TestRoundVectFloat.java | PSU |
| JDK-8325083 | 21 | jdk/incubator/vector/Double512VectorTests.java crashes in Assembler::vex_prefix_and_encode | PSU |
| JDK-8325179 | 11, 17, 21 | Race in BasicDirectoryModel.validateFileCache | PSU |
| JDK-8325218 | 21 | gc/parallel/TestAlwaysPreTouchBehavior.java fails | PSU |
| JDK-8325382 | 21 | (fc) FileChannel.transferTo throws IOException when position equals size | PSU |
| JDK-8325384 | 17, 21 | sun/security/ssl/SSLSessionImpl/ResumptionUpdateBoundValues.java failing intermittently when main thread is a virtual thread | PSU |
| JDK-8325469 | 21 | Freeze/Thaw code can crash in the presence of OSR frames | PSU |
| JDK-8325494 | 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 |
|-----------------------------|-------------------|--|---------|
| JDK-8325520 | 21 | Vector loads and stores with indices and masks incorrectly compiled | PSU |
| JDK-8325525 | 23 | Create jtreg test case for JDK-8325203 | PSU |
| JDK-8325542 | 21 | CTW: Runner can produce negative StressSeed | PSU |
| JDK-8325567 | 17 | jspawnhelper without args fails with segfault | PSU |
| JDK-8325587 | 21 | Shenandoah: ShenandoahLock should allow blocking in VM | PSU |
| JDK-8325616 | 21 | JFR ZGC Allocation Stall events should record stack traces | PSU |
| JDK-8325620 | 17, 21 | HTMLReader uses ConvertAction instead of specified CharacterAction for , <i>, <u> | PSU |
| JDK-8325621 | 17 | Improve jspawnhelper version checks | PSU |
| JDK-8325754 | 17, 21 | Dead AbstractQueuedSynchronizer\$ConditionNodes survive minor garbage collections | PSU |
| JDK-8325763 | 21 | Revert properties: vm.opt.x.* | PSU |
| JDK-8325862 | 11 | set -XX:+ErrorFileToStderr when executing java in containers for some container related jtreg tests | PSU |
| JDK-8325876 | 11 | crashes in docker container tests on Linuxppc64le Power8 machines | PSU |
| JDK-8326106 | 17, 21 | Write and clear stack trace table outside of safepoint | PSU |
| JDK-8326129 | 21 | Java Record Pattern Match leads to infinite loop | PSU |
| JDK-8326140 | 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 |
|-----------------------------|-------------------|--|---------|
| JDK-8326332 | 17, 21 | Unclosed inline tags cause misalignment in summary tables | PSU |
| JDK-8326351 | 8 | Update the Zlib version in open/src/java.base/share/legal/zlib.md to 1.3.1 | PSU |
| JDK-8326446 | 17 | The User and System of jdk.CPULoad on Apple M1 are inaccurate | PSU |
| JDK-8326521 | 8 | JFR: CompilerPhase event test fails on windows 32 bit | PSU |
| JDK-8326529 | 8 | JFR: Test for CompilerCompile events fails due to time out | PSU |
| JDK-8326717 | 21 | Disable stringop-overflow in shenandoahLock.cpp | PSU |
| JDK-8326734 | 17, 21 | text-decoration applied to lost when mixed with <u> or <s> | PSU |
| JDK-8327007 | 8, 11, 17, 21 | javax/swing/JSpinner/8008657/bug8008657.java fails | PSU |
| JDK-8327040 | 21 | Problemlist ActionListenerCalledTwiceTest.java test failing in macos14 | PSU |
| JDK-8327137 | 11, 17, 21 | Add test for ConcurrentModificationException in BasicDirectoryModel | PSU |
| JDK-8327312 | 17 | [17u] Problem list ReflectionCallerCacheTest.java due to 8324978 | PSU |
| JDK-8327401 | 21 | Some jtreg tests fail on Wayland without any tracking bug | PSU |
| JDK-8327423 | 21 | C2 remove_main_post_loops: check if main-loop belongs to pre-loop, not just assert | PSU |
| JDK-8327424 | 17, 21 | ProblemList serviceability/sa/TestJmapCore.java on all platforms with ZGC | PSU |

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

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|---|---------|
| JDK-8329995 | 11, 17, 21 | Restricted access to <code>/proc</code> can cause JFR initialization to crash | PSU |
| JDK-8330027 | 21 | Identity hashes of archived objects must be based on a reproducible random seed | PSU |
| JDK-8330063 | 11, 17, 21 | Upgrade jQuery to 3.7.1 | PSU |
| JDK-8330133 | 21 | libj2pkcs11.so crashes on some pkcs#11 v3.0 libraries | PSU |
| JDK-8330146 | 21 | <code>assert(!_thread_is_in_any_VTMS_transition())</code> failed | PSU |
| JDK-8330415 | 8 | Update system property for Java SE specification maintenance version | PSU |
| JDK-8330416 | 11 | Update system property for Java SE specification maintenance version | PSU |
| JDK-8330520 | 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 |
| JDK-8330523 | 11 | Reduce runtime and improve efficiency of <code>KeepAliveTest</code> | PSU |
| JDK-8330524 | 17 | Linux ppc64le compile warning with clang in <code>os_linux_ppc.cpp</code> | PSU |
| JDK-8330576 | 21 | <code>ZYoungCompactionLimit</code> should have range check | PSU |
| JDK-8330611 | 17, 21 | AES-CTR vector intrinsic may read out of bounds (x86_64, AVX-512) | PSU |
| JDK-8330615 | 17 | avoid signed integer overflows in <code>zip_util.c</code> <code>readCen / hashN</code> | PSU |
| JDK-8330748 | 21 | <code>ByteArrayOutputStream.writeTo(OutputStream)</code> pins carrier | PSU |
| JDK-8330814 | 21 | Cleanups for <code>KeepAliveCache</code> tests | PSU |

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

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

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

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

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

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

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

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|--|---------|
| JDK-8337312 | 8 | [8u] Windows x86 VS2010 build broken by JDK-8320097 | PSU |
| JDK-8337622 | 21 | IllegalArgumentException in java.lang.reflect.Field.get | PSU |
| JDK-8337664 | 8, 11, 17, 21, 23 | Distrust TLS server certificates issued after Oct 2024 and anchored by Entrust Root CAs | PSU |
| JDK-8337669 | 17 | [17u] Backport of JDK-8284047 missed to delete a file | PSU |
| JDK-8338139 | 11, 17, 21 | {ClassLoader,Memory}MXBean::isVerbose methods are inconsistent with their setVerbose methods | PSU |
| JDK-8338696 | 17, 21, 23 | (fs) BasicFileAttributes.creationTime() falls back to epoch if birth time is unavailable (Linux) | PSU |
| JDK-8339869 | 17, 21 | [21u] Test CreationTime.java fails with UnsatisfiedLinkError after 8334339 | PSU |
| JDK-8341057 | 8, 11, 17, 21, 23 | Add 2 SSL.com TLS roots | PSU |
| JDK-8341059 | 8, 11, 17, 21, 23 | Change Entrust TLS distrust date to November 12, 2024 | PSU |
| JDK-8341989 | 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 |
|-----------------------------|-------------------|---|---------|
| JDK-8282359 | 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 |
|-----------------------------|-------------------|--|---------|
| JDK-8328994 | 8, 11, 17, 21, 23 | Update WebKit to 619.1 | CPU,PSU |
| JDK-8331765 | 8, 11, 17, 21, 23 | Websocket callbacks are not executed after WebKit 617.1 update | CPU,PSU |
| JDK-8334713 | 8, 11, 17, 21, 23 | WebKit build failed on LoongArch64 because currentStackPointer is undefined | CPU,PSU |
| JDK-8335548 | 8, 11, 17, 21, 23 | testCookieEnabled fails with WebKit 619.1 | CPU,PSU |
| JDK-8336798 | 8, 11, 17, 21, 23 | DRT test cssrounding.html test for linear layout fails with WebKit 619.1 | CPU,PSU |
| JDK-8338306 | 8, 11, 17, 21, 23 | WebView Drag and Drop fails with WebKit 619.1 | CPU,PSU |
| JDK-8338307 | 8, 11, 17, 21, 23 | Additional WebKit 619.1 fixes from WebKitGTK 2.44.3 | CPU,PSU |
| JDK-8338478 | 17, 21, 23 | [macos] Crash in CoreText with certain strings using JDK 22 or later | CPU,PSU |
| JDK-8087444 | 21 | CornerRadii with different horizontal and vertical values treated as uniform | PSU |
| JDK-8088172 | 21 | Mac: On German keyboard, pressing <+><q> inserts two apostrophes instead of one | PSU |
| JDK-8088923 | 21 | IOOBE when adding duplicate categories to the BarChart | PSU |
| JDK-8089373 | 21 | Translation from character to key code is not sufficient | PSU |
| JDK-8089803 | 21 | [Mac, TextArea] Japanese IME, caret moves to the next line when pressing Return to select a candidate. | PSU |
| JDK-8090267 | 21 | JFXPanel Input Problem | PSU |

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

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

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

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

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

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

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

| OpenJDK Patch ID | Azul Zulu Version | Synopsis | CPU/PSU |
|-----------------------------|-------------------|---|---------|
| JDK-8336939 | 21, 23 | Update Glib to 2.80.4 | PSU |
| JDK-8336940 | 21, 23 | Update GStreamer to 1.24.6 | PSU |
| JDK-8336941 | 21, 23 | Update libxslt to 1.1.42 | PSU |
| JDK-8337481 | 21, 23 | File API: file.name contains path instead of name | PSU |
| JDK-8338701 | 21, 23 | Provide media support for libavcodec version 61 | PSU |
| JDK-8338886 | 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 hsdisk 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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