

Update to Zulu OpenJDK 17 on Buster (Beta 1-23-2023)

Objective: I want to be able update the Z-wave binding to OH 4.0-Snapshots to capture Zwave device database updates but stay on the OH 3.4 stable release for now. To do this I need to have Java 17 installed.

Issues: At the time of this note, the Openhabian installation version of Java 17 will fail on the Rpi Buster O/S due to missing dependencies. For several reasons, I do not want to upgrade my O/S (to Bullseye) right now. (or do a fresh Openhabian installation). The Zulu version of the OpenJDK 17 was reported to work on Buster.

Environment: The procedure below was successful in early January 2023 on both an Rpi3 and Rpi4 running Buster and the OH 3.4.0 release with the JDK noted below. Cautionary note: In the future there may be breaking changes in OH or the JDK so this may no longer work. I consider this fix temporary to avoid upgrading to **unstable** OH 4.0 snapshots. For stability I generally keep up with the **testing** (milestone) releases (maybe with a week or two delay).

- 1) Command lines using PuTTY
 - a) Sudo apt update
 - b) Sudo apt upgrade
 - c) Sudo openhab-cli backup --full Reason: Update everything and backup
 - d) Update-alternatives --help Reason: familiarize yourself with this command and structure
 - e) Sudo chmod 777 /usr/share/openhab Reason: Ensure the ability to move the PC downloaded file into the Rpi using Samba shares.
- 2) PC: Download Zulu build of openjdk 17.0.5+8 ARM 32-bit HF at the bottom of this [site](#) into Windows download folder.
- 3) PC: Copy downloaded file into openHAB-share/openhab-sys Note: These are the names on my PC that align with /usr/share/openhab.
- 4) Command lines using PuTTY
 - a) cd /usr/share/openhab
 - b) tar -xzf zulu17.38.21-ca-src-jdk17.0.5-linux_aarch32hf.tar.gz -C /usr/lib/jvm
- 5) If you used another method to create a Java 17 folder on your Buster Rpi you can start here.
- 6) Command lines using PuTTY
 - a) sudo update-alternatives --install /usr/bin/java java /usr/lib/jvm/zulu17.38.21-ca-jdk17.0.5-linux_aarch32hf/bin/java 2222 Reason: Add java17 to alternatives
 - b) sudo update-alternatives --list Reason: Validate and see what other versions are installed
 - c) sudo update-alternatives --config java Reason: Confirm and set Java 17 as automatic option. This command uses the highest priority alternative as the automatic option. You may need to add the Java 17 version with a higher number than 1111 (repeat step 6a) or use the --remove option to get rid of the other version(s) i.e
 - i) sudo update-alternatives --remove java /usr/lib/jvm/java-11-openjdk-armhf bin/java
 - d) sudo systemctl restart openhab
- 7) Check UI--> Help & About --> Technical Information --> Java runtime
- 8) I did a karaf bundle:update 242(Zwave) (location) of a 4.0-SNAPSHOT on the Rpi3 successfully.
- 9) Optional: Delete .tar.gz file

This has been running for about a week. I did notice an increase in reported memory use on the Rpi4, but it has stabilized. The Rpi3 has ZRAM running, so I think it adjusted