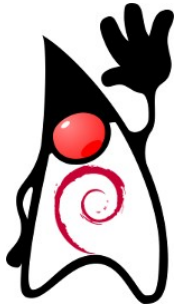


# Debian Java

## Insights and challenges

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February, 3rd 2019

# The importance of Java



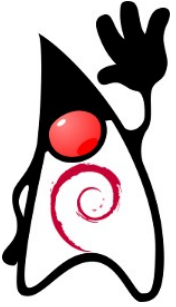
- Source / binary packages maintained by the Java team: 1033 / 1644 (+10,84 % since Debian 9)
- Source lines of code (Rank 3) : 90,744,884
- Popcon value OpenJDK-8 (installed): 78104 / 199604
- Popular libraries: apache-commons-\*, javamail, xerces2, bouncycastle
- Popular applications: libreoffice, netbeans, pdfsam, sweethome3d, freeplane, freecol
- Frequently used for scientific research, medical care and bioinformatics.

# What is new in Buster?



- **OpenJDK 11** transition completed.  
(required more than **400!** package updates)
- **Build tools:** Ant and Maven are up-to-date. Gradle is stuck at the last pre-Kotlin version. SBT is still being worked on.
- **JVM languages:** Groovy 2.14, Scala 2.11.12 (2.12 requires SBT), Clojure 1.9, Jython 1.7.1, JRuby 9.1.13 (?), Kotlin is wanted but hard to bootstrap.
- **IDE:** Eclipse is gone (lack of maintainers) but there is Netbeans 10 now.
- **Server:** Jetty 9.4 and Tomcat 9 fully up-to-date with systemd integration.
- **Reproducibility** rate is at 85% (was 75%)  
<https://reproducible-builds.org>

# Packaging challenges



- “None of the packages in the *main* archive area require software outside of that area to function”



Internet downloads at build time are not allowed

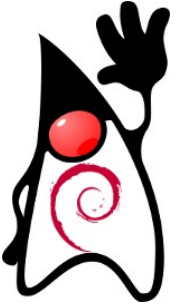


No prebuilt jar or class files!



Java is **version-centric**. Every developer has to update every dependency themselves in this model. There are no shared security updates. Software is often bundled into uberjars.

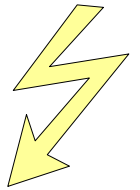
# Packaging challenges II



- Everything can be built from source, offline, only with packages from Debian main.
- Debian prefers **one package version** and shared dependencies that can be independently updated. This simplifies security support and maintenance and reduces code duplication.



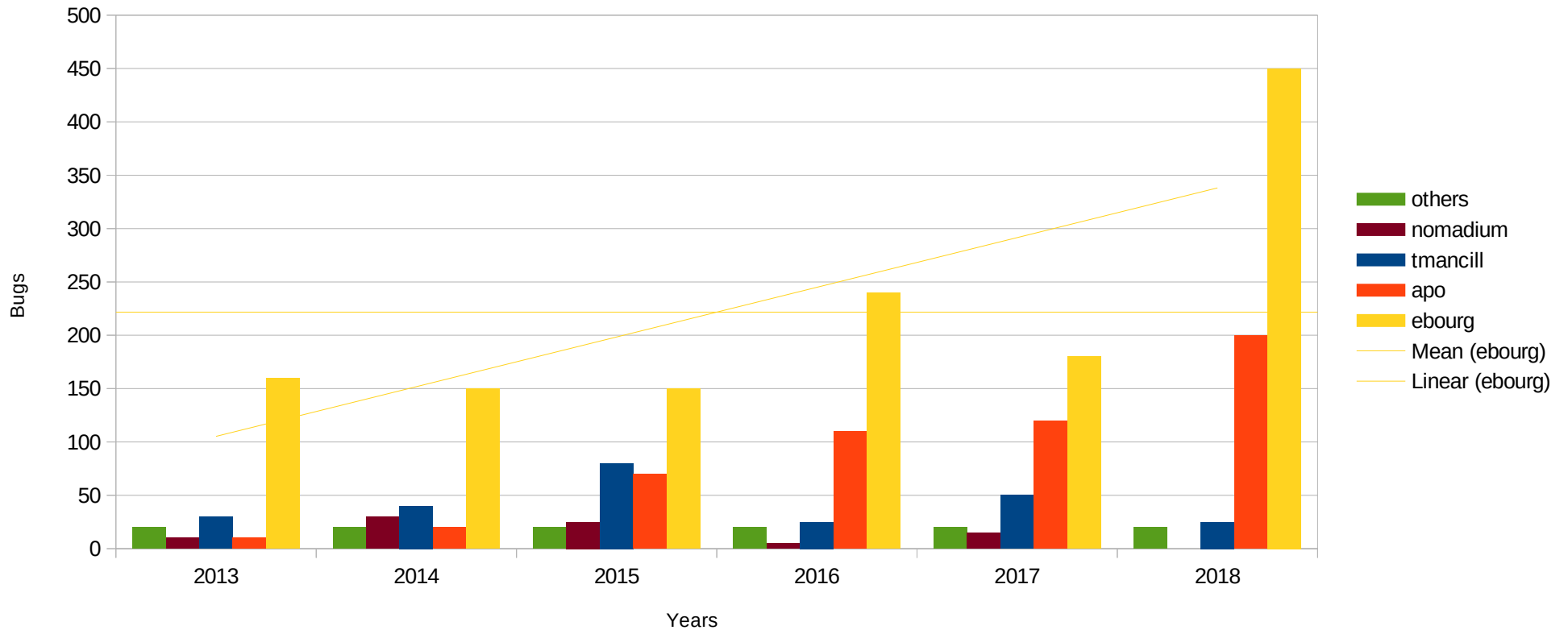
This use case is poorly supported upstream.



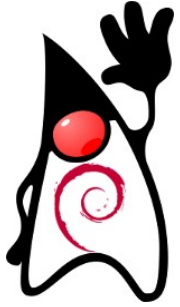
# Bugs fixed



Debian Java bugs fixed



# Let's release Debian 10 "Buster"



Thank you all for your  
attention!