Contributing to the OpenJDK

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OpenJDK?

Open source version (in 2006/2007) of the SUN sources

Used as based for all the Java distibutions (like the linux kernel vs linux distribution)

- Oracle, RedHat, Azul, Amazon, etc

OpenJDK Licence

GPLv2 + classpath exception

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License cover the whole combination.

As a **special exception**, the copyright holders of this library give you **permission to link** this library **with independent modules** to produce an executable, **regardless of the license terms of these independent modules**, and to **copy and distribute the resulting executable under terms of your choice**, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obliged to do so. If you do not wish to do so, delete this exception statement from your version.

JDK releases

before, mammoth releases (every 2 to 3 years)

since jdk 10, 6 month schedules

- September: jdk11, jdk13, jdk15
- April: jdk10, jdk12, jdk14 (2020), jdk16 (2021)

long term stable (LTS) every 3 years

- Currently jdk7, jdk8, jdk11

Where is the source?

Recently migrated to github (yai!)

github.com/openjdk/jdk

There are several repositories, one per OpenJDK project

- Update projects (security + some bug fixes)
 - jdk-updates (6 month releases)
 - jdk8-updates, jdk11-updates, soon jdk17-updates (LTS)
- Exploratory projects
 - Amber (Language), Valhalla (VM), Loom(VM),
 Panama foreign + vector (VM), Liliput (VM), etc

Project Mailing Lists

Each project has its own mailing list

https://mail.openjdk.java.net/mailman/listinfo

- core-lib-dev, awt-dev, hotspot-dev, hotspot-gc-dev, ...
- amber-dev, valhalla-dev, etc

All patches, pull-requests, discussions are on the mailing list

Pull request discussions use two ways mirroring
 Github ↔ mailing list

Oracle Contributor Agreement

You can not contribute to the JDK without signing the OCA

 A github bot will verify that patch authors have signed the agreement

https://oca.opensource.oracle.com/

Bug databases

Two systems

External: bugs.java.com/bugdatabase/

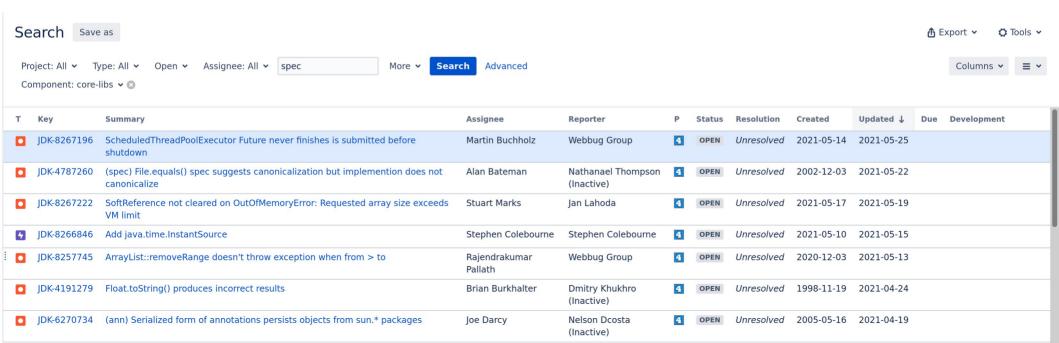
Everybody can enter a bug

- People paid by Oracle filter those bug reports, and transfer the relevant ones into bugs.openjdk.java.net
- OpenJDK: bugs.openjdk.java.net

Only OpenJDK author can enter a bug

bugs.openjdk.java.net

Jira instance hosted in CA Slow in Europe :(



The long march ... to contribute

Contributing using Github

```
Create remote repositories accessible using git
and add your public SSH key
Fork an existing openjdk remote repository (using the fork button)
e.g. from github.com/openjdk/jdk to github.com/forax/jdk
```

Clone a local copy
git clone git@github.com:forax/jdk

Build the jdk
./configure + make images

Hack the local copy: do the magic

Re-build and test: make images + make test

Contributing using Github (2)

```
... Hack + Re-build
```

Commit and push the local copy to your remote repository git commit + git push

Create a pull request (PR) from the remote copy to the openjdk repository pull request button on your github repository

A github bot verifies that you have sign the OCA

Associate the PR to the bug inside the PR: /issue JDK-XXXXXXX

The PR is reviewed on the mailing list/github

After discussion, the PR is approved or rejected