A beginner's guide to Backports

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jmtd.net
Preamble

≠ beginning OpenJDK

- Significant overlap

Why?

- Commercial reasons
- Fun!

Pic: https://unsplash.com/@radiomouse
https://wiki.openjdk.org/display/JDKUpdates/How+to+contribute+or+backport+a+fix

https://openjdk.org/guide/
Pre-requisites

- Sign OCA
  oca.opensource.oracle.com
- clone git@github.com:openjdk/jdk.git
- build
- Smoke test
- GitHub forks
$ bash configure \
   --enable-ccache \
   --with-boot-jdk=${BOOTJDK} \
   --with-gtest=${GOOGLETEST} \
   --with-jtreg=${JT_HOME} \
$ make clean && make jdk

bash configure --disable-warnings-as-errors
GitHub forks – Actions

Actions permissions

- Allow all actions and reusable workflows
  Any action or reusable workflow can be used, regardless of who authored it or where it is defined.
- Disable actions
  The Actions tab is hidden and no workflows can run.
- Allow fthevenet actions and reusable workflows
  Any action or reusable workflow defined in a repository within fthevenet can be used.
- Allow fthevenet, and select non-fthevenet, actions and reusable workflows
  Any action or reusable workflow that matches the specified criteria, plus those defined in a repository, can be used. More information about allowing specific actions and reusable workflows to run.

Artifact and log retention

Choose the repository settings for artifacts and logs.
Status in OpenJDK

Community – Groups – Projects

1. Sign OCA
   (⇒ Community Contributor)

2. Do some backports (≥ 2)

3. Request Author in a Project
   (⇒ OpenJDK account)

https://openjdk.org/bylaws
commit ed31b661d35a72948af6cf117cccea2e7537b920
Author: Koichi Sakata <sakatakui@oss.nttdata.com>
Date:   Wed Jul 8 11:39:11 2020 -0700

8247818: GCC 10 warning stringop-overflow with symbol code

Reviewed-by: kbarrett, iklam
Backports Monitor

https://github.com/shipilev/jdk-backports-monitor

https://builds.shipilev.net/backports-monitor/

(*) marks the backporting work in progress.
13 issues in total

## 21.0.3

13 issues

<table>
<thead>
<tr>
<th>Version</th>
<th>Interest</th>
<th>RFR</th>
<th>BP</th>
<th>Bug</th>
<th>Synopsis</th>
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# Finding a good backport bug

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<td>Write test to check textArea triggers MouseEntered/MouseExited events properly</td>
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**EXCLUSIVE: OPENJDK REJECTED**
## Perfecting Git

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<th>Size</th>
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<tr>
<td>213M</td>
<td>jdk8u-dev/.git</td>
</tr>
<tr>
<td>406M</td>
<td>jdk11u-dev/.git</td>
</tr>
<tr>
<td>532M</td>
<td>jdk17u-dev/.git</td>
</tr>
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<td>jdk/.git</td>
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<tr>
<td>1.5G</td>
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Pic: https://unsplash.com/@droogo
git worktree add -b local-branch \
../new-directory jdk8u-dev/master
**JDK path changes**

- `git mv <8u path> <path from patch source>`
- `git commit -am "pre-pick path adjustments"`
- `git cherry-pick <patch>`
  
  # resolve conflicts, further changes...
- `git revert <sha1 of git-mv commit above>`
vigg ()
{
  vim "+/\$1" $(git grep -l "\$@")
}

UI tests

```bash
carbyne> $JT_HOME/bin/jtreg -jdk:$JAVA_HOME $(git show HEAD --name-only --pretty="")
Test results: passed: 4; failed: 1
Results written to /home/jon/rh/git/jdk/jdk17u-dev/JTwork
Error: Some tests failed or other problems occurred.
carbyne 2
```
Xephyr

carbyne  $JT_HOME/bin/jtreg -jdk:$JAVA_HOME $(git show HEAD --name-only --pretty=""")
Test results: passed: 4; failed: 1
Results written to /home/jon/rh/git/jdk/jdk17u-dev/JTwork

Error: Some tests failed

Xephyr on :2.0 (ctrl+shift grabs mouse and keyboard)
Thank you!

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jdowland@redhat.com
First few backports

$ git checkout -b my-first-backport jdk21u-dev/master
$ git cherry-pick <backportCommitSha>
$ bash configure … && make clean && make jdk
$ make test-tier1
$ git push -u <your-fork-remote>

# raise draft PR with title “Backport <backportCommitSha>"