Commit Workflow for Github-ASF

This page describes the current process for committers for taking a pull request (PR) on GitHub and incorporating it into the codebase hosted at ASF.

The Jena source code resides in git, with a two-headed master:

https://gitbox.apache.org/repos/asf/jena.git

https://github.com/apache/jena

Commits have write access via both routes. The project prefers contributors to make pull requests to the github repository but this is a preference, not a requirement. JIRA patches, are also acceptable. What is required is that the contributor is taking an action that indicates they intend to make a contribution.

Using the github route to merge a PR means that the full range of github UI tools are available to committers.

It is also possible to handle a PR without needing a github account. This is described below - it is the process the project used to use when the github repo was a read-only mirror.

Steps to merge a pull request using github.com/apache/jena:

- get the JIRA ticket details - create a JIRA if there isn't one.
- if it can be merged without conflict, the github merge button will work.
- Do a merge commit (first option) and include the JIRA ticket in the commit message if the commits of the PR don't already mention the JIRA ticket.
  - If the merge has a conflict, ask the contributor to resolve the conflicts.
  - If the merge has a conflict and you are the contributor, either resolve the conflict on your branch or follow the github command line instructions.
- update the JIRA, making the ticket as "resolved" with "fix version" set to the next version. (Tickets are closed by the release manager when the next release happens)

Merging the PR will also close the PR. The contributor can delete their branch.

Steps to merge a pull request using gitbox.apache.org/repos/asf/jena.git:

- get the JIRA ticket details - create a JIRA if there isn't one.
- pull the PR from github (no fast forward)
- edit the merge commit message so the PR will be closed
- check everything is as expected
- push to Apache
- update the JIRA, making the ticket as "resolved" with "fix version" set to the next version. (Tickets are closed by the release manager when the next release happens)

There is page for contributors, including notes on code style, at: https://github.com/apache/jena/blob/master/CONTRIBUTING.md.

Process (via github)

This is the simpler process. The normal github UI tools work.

Ensure there is a JIRA ticket for the contribution. It is most helpful if the original contributor has put prefixed significant commit messages with "JENA-NNNN:

If the commit has a lot of intermediate small commits, it might be useful to ask the contributor to squash the PR to few commits that make the significant changes.

If you are the contributor, then the github UI has a merge option to squash the pull request.

When the pull request is merged, it is also closed.

.git/config (working with the github hosted repo):

This config has one has one [remote] section.
Additional

If it is your own PR: you can clearer up your development branch of your github clone:

1. Delete the working branch by going to the PR, which is now under "closed", and click "delete branch". This deletes the PR branch from your GH cloned repo (it can be restored).
2. In your local working copy of the GH clone, "git pull -p" to pull from your GH clone and prune tracked branches.
3. "git branch -d <thelocalbranch>" to update your copy.

Process (via gitbox.apache.org)

To merge a PR via this route, you need to have a local copy of Jena master, pull the request from github, then push to gitbox.

The PR needs to be closed by adding a commit message with the text "This closes #NNN".

.git/config (working with the Apache gitbox repo):

This config has one has two [remote] sections.

Start

cd YourApacheJenaClone
**Pull the PR from github**

Get the PR number, here we use "NNN" and the associated JIRA is "JENA-NNNN" - the real operation will use numbers.

Do this in a terminal window - it is going to execute the configured git commit message editor:

```bash
git pull github pull/NNN/head --no-ff
```

"github" is taken from .git/config. You can use the full URL if necessary.

"--no-ff" – no fast forward – This will stop git skipping asking for a commit comment if it can fast-forward the merge.

When the comment edit comes up:

1. Put "JENA-NNNN: " on the front of the first line (the merge commit comment)
2. Add a line in the comment body: "This closes #NNN."

Item 2 will cause the PR to be closed when the github mirror repo syncs up with the primary at Apache.

**Check it works**

As appropriate for the pull request, check things still work and if a fix does indeed fix the issue.

For example, having verified there are test, run:

```bash
mvn clean install -Pdev
```

to run the build, including tests, of the main modules.

("install" can be needed sometimes depending on the state of your local maven repo - often "verify" works)

A full build will be done when the code is pushed.

**Push to Apache**

```bash
git push
```

**Finish Up**

Wait a few moments for them to sync. It is usually pretty quick.

Resolve the JIRA, setting the "fixed version" to the next release (don't close the JIRA).

**Closing a PR**

If you forget to add the "This closes ####." or want to close a PR unmerged, then do

```bash
git commit --allow-empty -m "This closes #NNN."
git push
```

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2. In your local working copy of the GH clone, "git pull -p" to pull from your GH clone and prune tracked branches.
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