

Open MPI Git Migration

The Github Chronicles

July 29, 2014



Git

- Several OMPI projects have already moved to git / github:
 - hwloc
 - netloc
 - ORCM
 - ompi-www
 - mtt
 - pmix

OMPI SVN repos that have not (yet) moved to git

- ompi
- ompi-tests
- ompi-docs (private!)
- otpo
- ...and others we don't care about
 - ompi-cc
 - ompi-design
 - ompi-user-docs (kinda superceeded by github docs)
 - orte-www
 - plpa

Proposed plan in Chicago

- Should we move the main OMPI repo to git?
 - Answer: yes
 - See PPTX on <https://svn.open-mpi.org/trac/ompi/wiki/Jun14Meeting> for more detail
- Two repos:
 1. **ompi**: what is today the SVN trunk
 - Anonymous read-only access
 - All developers have push access
 2. **ompi-release**: only release branches + tags (no trunk)
 - Anonymous read-only access
 - Only RMs/GKs have push access

Proposed plan in Chicago

- SVN ompa repo converted to read-only
 - Private SVN trees (e.g., /tmp) stay in SVN
- If we need private github hosting, Cisco will pay for first year (\$300)
- ...but what about Trac?

Move away from Trac

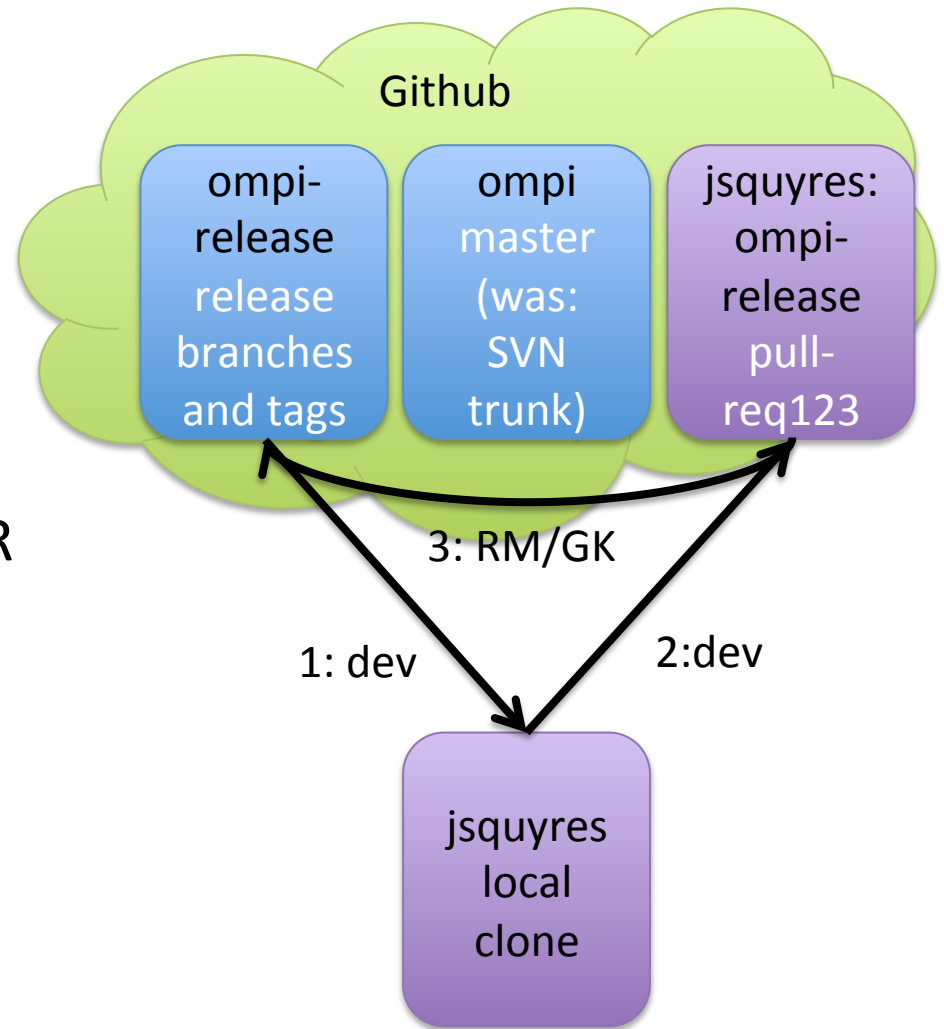
- CMRs become Github pull requests
- Tickets become Github “issues”
- Wiki can be converted: Trac → Markdown
- Migration general plan
 - Close whatever pending CMRs are relevant
 - Selectively move any old open+relevant Trac tickets to Github (probably by hand)
 - Make all new issues on Github
 - Trac becomes read/only

Github issues

- Work pretty much like Trac tickets
 - Assign milestones
 - assign to a developer
 - show all issues related to a milestone
 - bulk move issues to a new milestone
 - can close / reference issues from git commit messages (yay!)
 - can reference git hashes in git commit messages, and github web UI will auto-hyperlink them
- (Semi-)New feature: labels (tags)

Github Pull Requests

- PR's become Github issues automatically
- Two differences from existing CMR workflow:
 1. Propose: when reviewed, put “Reviewed” tag on PR issue (prevents needing “ompi-rmXX” fake user)
 2. If PR doesn't apply cleanly, github automatically disables “pull/merge” button (!)



Github wiki

- Haven't looked deeply at this yet
 - We **assume** that either something exists to convert Trac → Markdown, or we can hack up something “good enough”
 - Will likely still be a somewhat manual process

Developer guidelines

- Two wiki pages (so far)
 - Both are still works in progress
 - Initial OMPI Dev Git Setup / common workflows:
<https://gist.github.com/goodell/5b767d058214ddb5078f>
 - Open MPI Git Best Practices:
<https://gist.github.com/goodell/6b1391b70ac60f2b93f2>

Developer guidelines

- Sample github OMPI repos
 - Suitable for experimentation
 - <https://github.com/open-mpi-demo>

Interim conclusions

- github looks promising for complete migration
-- i.e., abandon SVN/Trac altogether
- No timeline set yet for actual conversion