Bioc Technical Advisory Board Minutes

7 April 2022

Attending: Vince Carey, Robert Gentleman, Lori Shepherd, Nitesh Turaga, Alexandru Mahmoud, Charlotte Soneson, Laurent Gatto, Levi Waldron, Jennifer Wokaty, Marcel Ramos, Stephanie Hicks, Michael Love, Aedin Culhane, Wolfgang Huber
Regrets: Shila Ghazanfar, Hector Corrada Bravo, Kasper Hansen, Rafael Irizarry, Aaron Lun

:03 - :04 Prior [minutes](#) approved

:05 - :06 CAB updates
- Minutes from [CAB 3-10-22 Meeting](#). Next Meeting April 14, 2022.
- Highlights
  - New members: Hedia Tnani, Xueyi Dong, Janani Ravi, Nicole Ortogero, Leo Lahti
  - Re-elected: Lori Shepherd
- Adding to governance docs that the CoC committee should review/approve all nominations to CAB before voting. (TAB should do the same).

:07 - :15 General updates
- Some calls needed in May:
  - .Rbuildignore for non-standard file exclusion. It seems this would necessitate some software in the build system to purge files mentioned in this file. We do not work from built packages but from the sources in git.
  - GitHub Actions coordination - Leo Collado-Torres, Mike Smith, Alex Mahmoud.
- Call for new TAB members. Four terms expiring (Charlotte, Stephanie, Aaron, Laurent)
  - Current procedure (from governance document):
    - After May meeting: public solicitation of nominees.
    - At June meeting: discussion of nominees by current board members.
    - After June meeting: voting by current board members.
  - "The solicitation and outcome of the nomination process are intended to be transparent. Discussion is conducted privately to the Technical Advisory Board. Voting is private and coordinated by the Secretary. If the number of nominees achieving a supermajority approval exceeds the number of available positions in the Board (N), nominees will be ranked by the fraction of approval votes and the top N nominees will be elected. Ties that would lead to the number of elected nominees exceeding N will be resolved by a voting round in which each TAB member casts a vote for exactly one of these nominees, and the nominees are ranked by the number of supporting votes."
- Update on governance progress – La Piana/NumFocus.
- Release 3.15 news.

- ○ Still mostly on track for communicated release date. A couple of issues related to annotations are being resolved.
- ● Still no plan for M1 mac binaries - did anyone look at Mac Studio?

:16 - :25 Marcel Ramos: [Current work on RaggedExperiment](#)
- ● Comments:
  - ○ Are there alternatives? Not really, distributing a matrix or a VCF file. SparseVCF project?

:26 - :35 Brief discussion of **issue tracking** motivations and technology (Trello and GitHub Project).
- ● Incoming communications on adverse events.
- ● Outgoing communications on impending solutions.
- ● Comments:
  - ○ As the project grows we could think about an official, public ticketing system (not sure we're currently at that scale).
  - ○ Look at the currently open issues, collect and sort - how do we prioritise issues/activities, which ones will not be addressed.
  - ○ Can core team time be reprioritised (more coding, less other things)?
  - ○ It might be good to make the collated ranked list of core team issues public so there is transparency about the core team workload. It may create a way the community can contribute and help.
  - ○ The CAB could survey the community (users and developers) to see if they know how to make an issue/PR and have an event to encourage contributions.
  - ○ Reach out to R contributions working group.
  - ○ Conference workshop/BoF/… on contributions/how to make a PR/…
  - ○ Process and credit for contributions (e.g. make sure that a PR includes an update to NEWS/DESCRIPTION).

:36 - :45 GitHub Actions template unification (Leo Collado-Torres, Mike Smith, Alex Mahmoud)
- ● Concept of a Bioconductor action (@v .. updated for each release?). Mike's Bioc actions: https://github.com/grimbough/bioc-actions.
- ● Need synchronization process.
- ● Do we accept the idea that the GitHub Actions workflow yaml (and any Bioconductor-oriented actions to be used) is a piece of software to be validated for devel and release streams like any Bioconductor package?
  - ○ This implies a much stronger commitment to containers as fundamental tools in the ecosystem production and maintenance practice.
  - ○ This in turn implies a major role of essentially complete and valid binary repositories to allow timely compilation of packages from source at the developer's repo.
  - ○ This has implications for cadence of repository updating. Informally we want to reduce the rate of change of the binary resource to reduce the complexity of diagnosis of problems observed in individual contribution repos.

- ○ The whole thing seems to VJC to require a careful analysis and dedicated time from experts.

:46 - :60 "Directions" – NSF compute resources as a motivation for thinking about "new approaches to conveying Bioconductor".
- ● Specifically: contrast the situation of being a knowledgeable R programmer/configurer/installer/packageinstaller with that of turning on RStudio and having everything you need from Bioconductor/CRAN, uptodate, ready to go.
  - ○ Is it possible?
- ● Connection with NSF massively assisted by Galaxy, other bidirectional collaboration proceeding.
  - ○ Containers
  - ○ Binary repos
  - ○ "All packages in .libPaths()" feasibility and usefulness for automated workflows (CVMFS)
  - ○ custos and BIOC IAM (e.g., self-managed "orchestra")
  - ○ Opportunity for GitHub Actions runner (Levi, Alex)
    - ■ Reduces configuration on the repo side
    - ■ Usefulness to developer community
- ● Comments:
  - ○ Can ask people to submit project ideas that would use the cloud resources -> could lead to new collaborations.
  - ○ Being able to develop support for new technologies within Bioconductor may be helped by having access to cloud resources.
- ● Self-hosted GitHub Actions runners (Levi)
  - ○ More control of hardware/operating system/software.
  - ○ Custom hardware configurations.
  - ○ No requirement for a clean instance for every job execution.
  - ○ Runner connects to github.com - can be behind a firewall.
  - ○ Security issues for untrusted workflows - recommended not to use for public repositories.
  - ○ Repository-level, organization-level, enterprise-level runners.