GraalVM Project Advisory Board Meeting Notes — February 2020

Meeting date: Feb 18, 2020

Members: Alan Hayward (ARM), Bernd Mathiske (Amazon), Bruno Caballero, (Microdoc), Chris Seaton (Shopify), Fabio Niephaus (Hasso Plattner Institute), Graeme Rocher (OCI), Johan Vos (Gluon), Max Rydahl Andersen (Red Hat), Michael Hunger, (Neo4j), Thomas Wuerthinger (Oracle), Shaun Smith (Oracle), Stuart Monteith (ARM), Alina Yurenko (Oracle), Julia Kindelsberger (Oracle).

Agenda Items

Advisory Board setup

- Reviewed and updated agenda items;
- Updates from the project lead (Thomas);
- Agreed on next meeting date (proposing week of May 4-8). Board members will vote for exact date.
- Max mentions the goals for the advisory board suggested by Red Hat (quarterly meetings, all updates & upcoming projects on GitHub issues).
- Suggestion to create a security collaboration group like OpenJDK vulnerability group (Max)
  - Looking for security leads from other advisory board members;
  - Already started working on security group setup.
- Thomas: we can also consider creating smaller working groups for specific topics/areas of interest.

Contributing and Community

- Max also raised an issue of a few GitHub PRs, that require response (eg #1844 (62 days) and #2067 (32 days)).
  - All agree that we need a way to communicate current status and progress for such issues.
- Fabio: Would it be possible to open the GraalVM Updater catalog to the community? GitHub issue already created: #2159
- Really like the transparency updates (GH project, milestone, dev-builds) (Michael)

- Perhaps for next time - thoughts on training / advocacy material to share with the community, I think Oleg had some things (Michael)
- Could there be something like a fast track for no-brainer PRs (e.g. documentation fixes, typos. Goal: reduce number of open PRs)? - Fabio
  - Thomas notes that right now even just documentation changes require us to run all of our gate (and full test);
  - Immediate suggestion is to approve them verbally and then merge these together into one by the requester.
- Two questions from ARM (Alan - asked by Xiaohong):
  - They are looking for more details on the existing tests for native image (specifically Aarch64). For example, Renaissance benchmark is disabled for AArch64.
  - Need some guidance on what is happening with PR #1772 (rework handling of volatile accesses on aarch64). Is this fix abandoned, and should we be creating a new fix.
- PR from Neo4j for Netty support (WIP): https://github.com/netty/netty/pull/9989

Testing and build process

- ARM are planning to add more testing to GraalVM CE since they have tests for many different devices.
- Thomas told about a new tool, that creates a visualization of what goes into a native image, allowing to figure out how to make the image smaller. It's being tested and will be released soon.
- Thomas mentions that people should run "mx gate" rather than Travis
  - Fabio recommends GITHub actions — you get more resources - Max concurs;
  - Graeme mentions that they are moving to GitLab for his project.
- https://github.com/graalvm/graalvm-ce-dev-builds - Max notes that it should be made sure that there are GitHub issues for the OpenJDK modifications required to build native image as well;
- Graeme: we need better error reporting for native image build problems (e.g. better instructions how to proceed).
- Johan: Can we somehow have more access to the internal gates? If a PR fails, it is often hard to see why since the public travis works (green) but internal tests fail. Eric: Oracle team is working on allowing community members to submit tests to run on our internal hardware resources and get results, but this will take longer to expose — we have to go through security reviews and other approvals. This may take on the order of 6-12 months to get done.

- Discussion of using `mx` and alternative ways to build GraalVM:
  - Fabio asked whether is it intended for use outside Oracle.
  - One idea mentioned by Thomas was to have mx generate a build script in another tool.

Enhancement requests of interest:

- DWARF debug symbols (Max);
- JFR support (Max);
  - RH presentation about the topic: https://fosdem.org/2020/schedule/event/hacking_graalvm/

Next steps

- Review (board members) and publish(Alina) he advisory board announcement and meeting notes;
- Create a security collaboration group (board members are invited to join);
- Set up the next meeting in May.