

GraalVM Advisory Board May meeting

- Project updates (Alina)
- Discussion around memory usage and binary size of native images
 - Sébastien: we observe memory footprint regressions with Java 11 and 17 comparing to Java 8. Can we balance compatibility and optimal footprint?
 - Thomas: agree, memory is very important with us as well; Regressions should not be the case.
 - we can use tooling to detect which contributes to memory usage.
 - also regarding footprint and binary size, in some cases, such as Spring, a lot of binary size could be taken up by image heap. Compression techniques could help there; or clearing out static fields with values that are not used.

- Sanhong Li: We(Alibaba) raised this request:

<https://github.com/oracle/graal/issues/3418>

which aims to improve the points-to analysis of GraalVM Native Image for use by a general java application(other than the native image generator). We will have a follow-up discussion with the GraalVM community and the next step is to strengthen the APIs for independent use from Native Image.

- to do: set up a meeting to discuss this - done;
- one way to speed up the image build time is leverage reachability analysis rather than points-to analysis
- Ivan: could this also improve memory usage? during the compilation (issue [#3427](#))
- Thomas: yes, should be possible to work on it (e.g. around threads and ordering)
- Fabio: Just FYI: there's now a changelog for the Graal compiler at: <https://github.com/oracle/graal/blob/master/compiler/CHANGELOG.md>
- Alan: We are still seeing patches committed that break the CI testing
 - Thomas: are those tests on github? they are unrelated to our tests. can we integrate them?
 - Johan: can the tests be synced 100% or removed?
 - Gilles: it's important that we run 100% on GitHub; let's investigate it further
- Are there any plans/priorities for MacOS on M1?
 - Thomas: what do we need to get there?

- There are OpenJDK builds for M1
- Relevant issue: <https://github.com/oracle/graal/issues/2666>
- We'll look at it; maybe at least make JIT work; Native Image might require additional work
- Notarization issue on Mac
 - still working on it, requires a lot of change
- Alan: Any plans to move MX to python 3?
 - Fabio: mx already supports Python 3:
<https://github.com/graalvm/mx/blob/a04cef2902b609f189df627cd797c1768cb91505/.github/workflows/gate.yml#L14>
 - Gilles: yes it is planned; working on prerequisites; should happen soon
- Max: Leyden updates?
 - I can answer questions about qbicc if any
<https://mail.openjdk.java.net/pipermail/discuss/2021-May/005816.html>
<https://oss.oracle.com/pipermail/graalvm-dev/2021-May/000111.html>
 - Eric: not at the moment
 - Community feedback for Native Image (e.g. around usability) would be helpful
 - Max: feedback for qbicc would be helpful as well