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