The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Moving Java Forward, Faster

Goals and motivation

- Around Java 9, started to reevaluate how Java is delivered
  - Feature-boxed release model was slow, unpredictable
    - Perception of slow progress, even when rate of innovation is high
    - Increasingly out of line with how other platforms do things
  - High release management overhead
    - Significant pressure to backport many bugfixes
    - Significant distortions at the boundaries
    - Hard to spread out disruptive changes
- Six months seemed the right balance
  - Any longer, and the distortions would come back
  - Many (including the EC!) were skeptical…
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Laying the groundwork

- Jigsaw module system was a key technical enabler
  - Encapsulate internals, divide codebase into modules
- Processes were not ready to support a rapid, agile cadence
  - Oracle-internal, OpenJDK, JCP processes all had timescale assumptions
  - Many hidden waterfall assumptions
- Took significant groundwork to make this possible
  - Oct 2017 – maintenance review of JCP 2.10 (JSR 364)
    - Minimal changes to fit a release, end-to-end, in 6 months
  - Dec 2018 – JCP 2.11 (JSR 387)
    - More significant rationalization of process overhead to new cadence
    - Replace discrete steps with continuous, coalesce end-game milestones
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Separation of concerns

- Overlapping governance models are a recipe for conflict
- New model has more clear division of responsibilities
  - OpenJDK “JDK” Project – Looking to the future
    - Technical direction, development
  - JCP – Safeguarding the present
    - Integrity, completeness, and accuracy of specification, TCK
    - Independent implementability
  - Commercial support entities – Preserving the past
    - Support lifetimes and policies, update trains, backports, etc
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Results so far

- Java 9 – Sept 2017
  - 3 ½ years in the making
  - Over 90 JEPs
- Java 10 – March 2018
  - 12 JEPs
- Java 11 – Sept 2018
  - 17 JEPs
- Java 12 – March 2019
  - 8 JEPs
- Kept to the schedule, no surprises or disruptions
  - ... with vastly reduced release-management overhead
For the Committed

- JVM Language Summit
  - Annual event, for last 10 years
  - In-depth discussions on interaction of JVM architecture and language implementations on the JVM
  - Presentations streamed on YouTube

- OpenJDK Committers Workshop
  - August 2018 (Santa Clara), Jan 2019 (Brussels)
    - Likely continuing on that cadence
  - Open to all OpenJDK committers
  - Discussions of technical directions, processes, policies for OpenJDK
Looking ahead

- Our feature pipeline is better than it has ever been
  - Better mix of smaller and larger features
  - Ability to break bigger features into smaller ones
- Long-term projects bearing fruit
  - Amber – right-sizing language ceremony
  - Panama – native code and data interop
  - Loom – fibers and continuations
  - Valhalla – value types and specialized generics
- This is a very exciting time for Java!