

Scala Center team:

- Julien Richard-Foy, 100%
- Jorge Vicente Cantero, 100%
- Guillaume Massé, 100%
- Ólafur Geirsson, 65%
- Heather Miller, 20%

Since our last meeting, 1 advisory board member has joined the SC. We'd like to welcome:

- James Belsey, Morgan Stanley

Hiring: Moved to hire 1 employee to work on Scala Native project. After 1.5 months of hiring paperwork (it takes time to hire at EPFL), candidate decided to accept a job offer at a startup. We are also still waiting on advisory board members to pay their dues, so we are short on funds for hiring at present.

Accepted initiatives:

- Clarification of Scala to Dotty migration path
- Ensurance of continuity of Scala.js project
- Native Execution of Scala/Spark via LLVM
- Center to coordinate SIP/SLIP process
- Compile Time Check of Serializability (Spores)
- MOOCs

Previous/other initiatives:

- MOOCs (Julien/Heather)
- Scastie/ScalaFiddle (Guillaume)
- Scaladex (Guillaume)
- Scala Core/Scala Platform split (no one, yet)
- Scala Ecosystem Hackathons (Jorge, Julien, Olaf)
- New Scala Exercises for MOOCs (Julien)
- Migration to Discourse (Heather)
- CoC (community + Heather)

## Clarification of Scala to Dotty migration path

**Olaf (65%):** Released scalafix, a migration tool for Scala to Dotty

<http://www.scala-lang.org/blog/2016/10/24/scalafix.html>

- Currently implements a few rewrite rules, removes procedure syntax and makes lazy vals volatile.
- More rewrite rules were blocked by macros in Scala.meta not yet being ready
- So, Olaf has begun contributing to Scala.meta as it is blocking scalafix progress.

- Olafur contributed 51 commits (++3.700, --2.000 LOC) to the new-style macro annotation implementation, increasing the language coverage of such macros from ~50% to 99.8% from a corpus of 26k source files.
- wrote the official scala.meta tutorial (<http://scalameta.org/tutorial/>) to help developers learn about the new macro annotations.
- hosted a workshop on scala.meta at the scala.world conference, the recording of the workshop has been viewed >1.000 times on YouTube over last month.

## Ensurance of continuity of Scala.js project

### Julien (100%, on EPFL's MOOC budget)

- Developed and released scalajs-bundler
  - an sbt plugin that downloads the npm packages your Scala.js project depends on, and that bundles your application code along with its dependencies into a single .js file compatible the the web browser execution environment.

## Native Execution of Scala/Spark via LLVM

### Guillaume (100%)

- Joint cross-publishing infrastructure between JVM/JS/Native
  - This is a major milestone towards cross-publishing artifacts between all three major platforms. We managed to preserve most of the orginal cross-project syntax from Scala.js while decoupling it from the concrete platforms and adding support for Native.
- 3-rd party unit testing integration (in-flight)
  - This enables us to run tests that are written using existing 3-rd party testing frameworks such as utest. This together with sbt-cross will provide as ability to do a full-cycle of compile-test-publish for a number of existing projects. Work on first few has already started.
- Tooling to discover which Java APIs are most commonly used by 3-rd party projects
  - Scala Native contains a clean-room reimplementaion of a subset of JDK APIs. To prioritize our efforts we've developed a tool to collect statistics about which are APIs are most commonly used in the wild.

## Center to coordinate SIP/SLIP process

### Jorge (100%): Newly-proposed SPP process:

Goals of SPP:

- Provide infrastructure (for building, continuous integration, and releasing)
- Help with project governance (processes and guidelines to recruit contributors)

So as to try and make it easier on platform library authors to ensure that maintenance and releases of their library can scale beyond just them alone.

### **SPP Infrastructure:**

- sbt-platform plugin,
  - configuring automatic nightly builds, automatic releases of stable versions when a git tag is found, MiMa compatibility checks and PGP signatures for artifacts (with Scala Platform keys), integration with our Drone setup for writing your own sbt scripts, and other configuration that is oftentimes tedious to manage.
- continuous integration, and
  - Continuous integration (CI) is provided by Drone, on an EPFL cluster. The CI integration comes with a default Scala template that requires minor customization, and yet allows users to remotely configure the build, store their tokens, send notifications and act on certain events.
- a release manager.
  - When new changes are forwarded to the corresponding projects' platform-release branch, our release manager releases them every night. If anything goes wrong, it will notify maintainers via email with an error log.

### **SPP Governance:**

- Based on Pieter Hintjen's C4 contract:
  - the C4 contract sets rules for developer interaction such as what happens when someone submits a patch, how users should create pull-requests and motivate them, how maintainers can evolve and document APIs, or how they should deal with bad actors in case of a conflict.
- Release process
  - three release pipelines:
    - nightly (for beta testers and early adopters),
    - stable (for users), and
    - bug fixes (in case that critical bugs are found).
- We want community feedback on these processes!

### **Jorge (100%): SIP process:**

- Accepted:
  1. SIP-27 Trailing commas,  
<http://docs.scala-lang.org/sips/pending/trailing-commas.html>
- Under review:
  1. SIP-30 Static members  
<http://docs.scala-lang.org/sips/pending/static-members.html>, numbered, waiting on author to address feedback
  2. SIP-28 and SIP-29 Scala.meta  
<http://docs.scala-lang.org/sips/pending/inline-meta.html>, numbered and under review, waiting on author to address feedback
  3. SIP-25 Trait parameters  
<http://docs.scala-lang.org/sips/pending/trait-parameters.html>, under review, looking for an owner to continue the review and address feedback

4. SIP-24 Repeated by-name parameters  
<http://docs.scala-lang.org/sips/pending/repeated-byname.html>, under review, waiting on author to address feedback or a potential owner
  5. SIP-23 Singleton Type parameters  
<http://docs.scala-lang.org/sips/pending/42.type.html>, looking for an owner to continue the review and address feedback (implemented, though)
  6. SIP-24 Spores <http://docs.scala-lang.org/sips/pending/spores.html>, dormant, waiting on owner to address feedback
  7. SIP-20 Improved lazy val initialization  
<http://docs.scala-lang.org/sips/pending/improved-lazy-val-initialization.html>, reviewed, looking for an owner to provide an implementation
- Rejected:
    1. SIP-26 Unsigned Integers,  
<http://docs.scala-lang.org/sips/rejected/unsigned-integers.html>, rejected by recommendation of the author because of bad benchmark results
    2. SIP-12 Uncluttering Scala's syntax for control structures,  
<http://docs.scala-lang.org/sips/rejected/uncluttering-control.html>

3 accepted initiatives last time around:

- Center to coordinate SIP/SLIP process
  - Hired Jorge Vicente Cantero, August 1, (contracted in July)
  - Successfully restarted and reformed the SIP process
  - First meeting last month, next meeting tomorrow
  - First new SIP meeting:
    - 2 SIPs numbered
      - SIP-27 Trailing Commas - **progress made, revisiting tomorrow!**
      - SIP-26 - Unsigned Integer Data Types (progress planned in Sept.)
    - 3 SIPs updated
      - SIP-25 Trait Parameters (next steps given)
      - SIP-20 Improved Lazy Val Initialization (next steps given)
      - SIP-22 Async (postponed)
  - Scala Platform:
    - Currently working through the design of an all new SLIP process
    - Reminiscent of the Haskell Process.
    - Different committee than SIP committee
    - Goal: to decide on a "batteries-included" distribution aimed at newcomers
    - Goal: to provide infrastructure and scaffolding to commonly-used libraries
    - Goal: keep central community libraries thriving!
- Clarification of Scala to Dotty migration path
  - Hired Olafur Geirsson, started August 1
  - Already has a tool that can remove procedural syntax
  - <https://github.com/scalacenter/scalafix>
  - Goal first release today(!)

- Ensurance of continuity of Scala.js project
  - Hired Julien Richard-Foy, July 15 (paid on EPFL funds)
  - Planned to start a project to focus on better-integrating Scala.js into the workflow of front-end developers

## Compile Time Check of Serializability (Spores)

### Jorge (100%)

- Spores compiler plugin just released!  
<http://scala-lang.org/blog/2016/11/30/spores-release.html>
- Improved the spores implementation, created a compiler plugin to perform the serializable transitive checks
- New docs for the future integration with Spark:  
<https://jvican.github.io/spores>, <https://github.com/jvican/spores> and <https://github.com/jvican/spores-spark-tutorial/commits/master>

## Scastie/ScalaFiddle

- New project, more general than Scala-Fiddle
  - Can include any library: external dependencies (Scaladex / Maven)
  - Multi Target: Dotty, Native, Scala.js, Scalac, ...
- Video: <https://www.youtube.com/watch?v=IYRJ9hfdjfc>

## New Scala Exercises for MOOCs

### Julien (100%)

- ported the two MOOCs “Functional programming in Scala” and “Functional program design” to the scala-exercises platform.

## MOOCs

### Julien (100%), Heather (20%)

- Finished capstone project, ready to release
- Almost finished Spark lectures, almost ready to release

## Scala Ecosystem Hackathons


- Community-building exercise
- Structure and process for bringing people together to work on Scala ecosystem projects
  - Pair programming
  - Library author in the room
  - Library author curates ~10 todos, accomplishable in 3hrs by newcomers ahead of time
  - Goal of participants: 1 PR merged by end of hackathon

- Goal: portable, repeatable. Menu for meetup group organizers to follow in their cities.
- Scala Wolrd, Lambda World, Scala Exchange
- Success! Tens of first-time contributors



<https://pbs.twimg.com/media/Ctnq377WcAEnYK4.jpg:large>

## Scaladex

- Deal with Sonatype to push new releases directly to Scaladex
  - When a new user publishes to Maven Central, some code is run on their server to check if it's a Scala release. If so they will forward it directly to Scaladex. This means that we get notify of new releases within minutes.
- Badges: 
- Coursier wants to add support for Scaladex (PR #385)
  - Before: `coursier launch com.lihaoyi:ammonite_2.11.8:0.7.0`
  - Now: `coursier launch ammonite`

## CoC + Mailing list migration to Discourse

- New CoC arrived at with Erik Osheim, Kelley Robinson, Stewart Stewart, and Seth Tisue
  - <https://docs.google.com/document/d/1KqqdOywKWALUqJObM1Dglqe-n59C3bzxugd7RE8vYFY/edit?usp=sharing>
- Migrate mailing lists to Discourse
  - <http://contributors.scala-lang.org> (scala-internals, scala)
  - <http://users.scala-lang.org> (scala-users, scala-announce)

## Financial Report

- EPFL seeded SC with salaries of ED + 1 engineer + 1 administrative assistant (1 day per week) for 1 year. So far, all expenses paid for the SC's operations have come from EPFL's contribution. (MOOC development to be funded on this money.)
  - Hope is that ED, administrative assistant, and 1 engineer can be funded for a 2nd year on revenue from MOOCs.
  - No word yet on how much money we'll have in FY2017 from MOOCs (even though they've made some money), although EPFL guarantees 250k deficit protection for the SC.
- Advisory board money funding employee salaries since August
- 10 advisory board members.
- 250kCHF in membership fees received
- 225kCHF outstanding (missing fees from 3 advisory board members for some time)
- Without explicitly mentioning peoples' salaries, it's safe to say that 2 advisory board member companies = 1 engineer at EPFL.