# NumPy developer hangout - 2 July 2015

**Present:** Nathaniel Smith, Fernando Perez, Ralf Gommers, Sebastian Berg, Honi Sanders, Jaime Fernández del Río, Chuck Harris, Julian Taylor

This meeting is ahead of the in-person developer meeting next week: <a href="https://github.com/numpy/numpy/wiki/SciPy-2015-developer-meeting">https://github.com/numpy/numpy/wiki/SciPy-2015-developer-meeting</a> so I (= njs) propose the following **agenda**:

- 1. Logistics for next week:
  - a. What time do we want to start?
  - b. What are our main goals for the meeting?
  - c. How do we want to organize our time? (Maybe just sitting in a meeting room grinding through an agenda for 10 hours straight is not the best approach.)
  - d. Are there any topics that e.g. we should plan to discuss at a particular time so Ralf can plan to join remotely?
  - e. Stuff like that.
- 2. Do a \*brief\* pass through the list of topics for the meeting listed on the wiki page (linked above). The goal here is not to actually have a detailed discussion, but just:
  - a. Get a general sense of where we stand so people can come prepared next week
  - Get feedback on these topics from those who won't be present for the meeting next week

#### Minutes:

Nathaniel / Jaime / Sebastian: getting in on the weekend Chuck: getting in Monday evening

## Schedule:

Sitting at a conference table for 8 hours is probably not very productive Chuck suggests: getting down a lot of the policies we have but informally Jaime: would like to see a clear plan for how to make bigger improvements (e.g., recurrent discussions about dtypes), so he can go do it if he feels inspired

### Main goals:

- 1. The intangible value of meeting people in person
- 2. Writing down a high-level roadmap, with sketches of some of the bigger topics (approachable dtypes, ufuncs changes, Cython in numpy core, etc.).
- 3. Moving forward on formalizing our governance model

## Microsoft problem

Ralf on governance:

good thing to talk about in person

good to document the things we do already agree on -- deprecation policies and things like

### Fernando:

Based on IPython experience, \*strongly\* recommends the value of formalizing governance -- for them it's BDFL, steering committee, codifying what an industry partner was. It didn't take too much time -- mostly just codifying things from Python, existing experience, etc. -- and it produced a surprising amount of benefits. Suddenly companies like IBM know how to talk to you, e.g. And can get funding. (In EU: "DreamKit" funded by H2020, Jupyter got 3 developers on it; in US, NSF and NIH are funding sustainable software, reproducible software, ...) And numpy is at the base of all this dependency stack, so we should be able to get that kind of full time resources. But actually doing that requires formal organization. "You're leaving a huge amount of resources on the table by not taking a few small steps." IPython funding is now in the ~6 million USD range.

"NumPy has potentially a much larger impact than IPython/Jupyter" -- Fernando

What exactly would we do with funding, we are missing a clear roadmap - Julian

Chuck: NumPy use has really exploded in the last 2-3 years. And being associated with the university gives a lot of resources for getting grants.

Ralf: It's been pretty difficult to get stuff like NumFocus FSA signs.

Fernando: We're embarrassed to admit in public that NumPy doesn't have an FSA, it's that ridiculous.

Chuck: it would be good to have a "consultant" on governance -- someone with experience that we can consult? Fernando would be a good choice, but he won't be there...

Fernando suggests talking to: Brian Granger, who will be there

Nathaniel will get in touch with him

Josh Greenberg's wife's academic research is about the governance of non-profits (Will Sebastian Benthall be around yet?)

Ralf will send some links from NumFocus point of view

Karl Fogel's book is good -- Nathaniel will send some links

Jupyter/IPython governance documents are public and might be worth us reading ahead of time IPython Governance:

https://github.com/ipython/ipython/wiki/IPEP-29:-Project-Governance

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Roadmaps:

Chuck: prefers evolution, wants more feedback from users

Who else to talk to? Chuck suggests Pauli Ralf!

## Ralf says:

- continue as we have been? We'd like to improve probably
- numpy is too big to pull down shades
- better not to say "2.0" unless you define it properly
- release more frequently
- try to keep backwards compatibility
- and then try to improve -- dtypes, masked arrays, ... make a list, rank them, and try to move forward

Jake Vanderplas, Ondrej Certik

AstroPy? -- send an email to the list

Chuck: speaking of releasing more often, about 675 non-merge commits since 1.9

What time?

OFFICIAL START: 9:30

Fernando quick tip: if doing an open hangout, bring a speaker/microphone

Fernando: another thing to put on agenda: try to find the resources to do longer dev meetings -- IPython does 2x a year one-week all-hands meetings, fly 10-12 people into berkeley for a week. And these are incredibly prod,uctive meeting -- can tackle really complicated discussions that can't be done in a day, and build the social fabric.

expensive, take logistics, take work but do them twice a year anyway based partly on feedback from Github (a very distributed company) who also does 2x a year all-hands meetings, because that was necessary to get them to converge It's hard and won't be perfect, but think of it as a goal for the project because if it's not on the radar it won't happen.

And it has a phenomenal impact on our ability to have long-term sustained strategic thinking