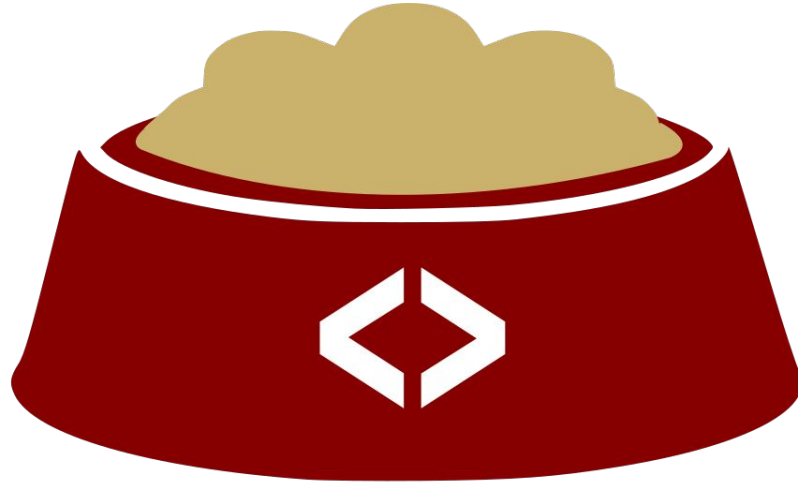


Apache Kibble Crash Course



APACHE[®] KIBBLE[™]

What is Kibble?

Apache Kibble is a completely free, completely awesome
(completely work-in-progress) Development Activity
Visualizer and Aggregator.

*You program, document, draw – and we'll keep count of who did what, when and
how – and show you pretty charts!*

Why Kibble?

- Kibble aims to help solve some of the many issues that CHAOSS also works on:
 - Scan data and keep records of activity
 - Visualize activity, trends, connections (both scientific and human aspects)
 - Capture what went on, is going on, and will happen in software projects (Growth, Maturity and Decline!)
 - Help define standard metrics by allowing users to easily create, test and distribute aggregation methods

What Can You Analyze With Kibble

- Kibble supports a bunch of data sources, including:



Gerrit



Git SCM



GitHub



GNU MailMan
PiperMail



Apache Pony
Mail



Twitter



Travis CI



BuiltBot



Jenkins



BugZilla



Discourse



JIRA











What Can You Analyze With Kibble

- Kibble tracks and visualizes a number of things, including:
 - Code commits
 - Code evolution
 - Pull/merge requests and issues
 - Email and forum discussions
 - Social Media trends
 - Sentiments
 - Growth, Maturity and Decline
 - Contributor retention
 - And more..!

Key Performance Indicators

Kibble shares a number of KPI with CHAOSS standards, although some are historically named differently - including:

CHAOSS Definitions:

- Bus Factor 
- Code Commits 
- Contributing Organizations 
- Contributors 
- Issues/PRs created/closed/comments 
- LoC changes 
- Size of Codebase 
- Total Contributors 
- Pull Requests / Issues Open (over time) 
- New Contributors 

In Kibble:

- Pony Factor
- Code Commits
- Meta-Pony Factor
- Contributors (various terms used)
- Issues/PRs created/closed/comments
- LoC changes
- Code evolution
- Total contributors (various terms used)
- Open Issue Age
- Community Growth

We also have a bunch of unique KPIs that we would love to share with the CHAOSS community!

Alignment with CHAOSS Working Groups

Growth Maturity and Decline

- Code Development
- Community Growth
- Issue Resolution



Diversity and Inclusion

- Event Diversity
- Contributor Diversity
- Communication Inclusivity
- Recognition of Good Work
- Governance
- Leadership
- Project and Community



How to set up Kibble

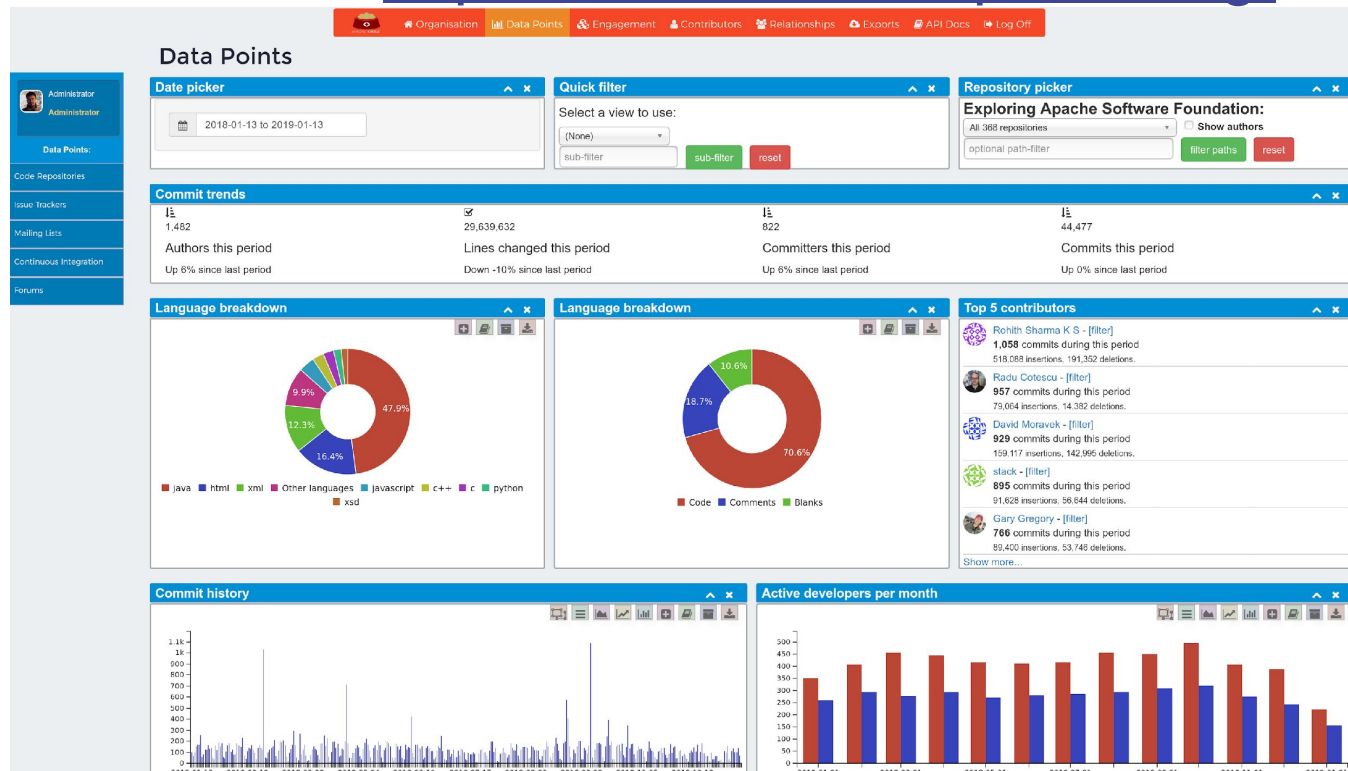
- TL;DR: Read <https://apache-kibble.readthedocs.io/> :
 - Get yourself a Linux box with ElasticSearch and a web server
 - Clone server repo, run setup.py, set up wsgi process
 - Clone scanner program to one or more nodes, connect to master's DB (and schedule daily/weekly scans)
 - Use the Kibble UI to add data sources
 - Watch as data comes in and visualize it however you want!

Kibble In Action

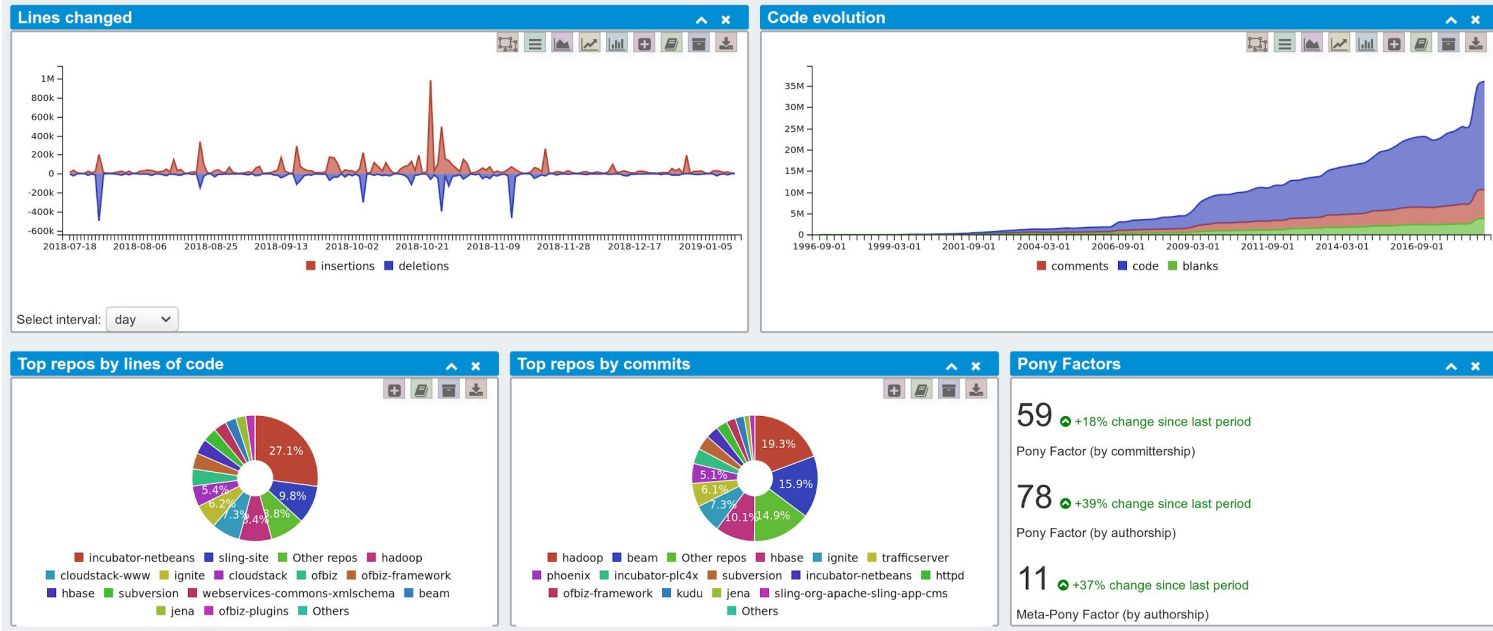
Let's see some screenshots!
(Alternately, abuse our chromebook at FOSDEM)

Kibble In Action:

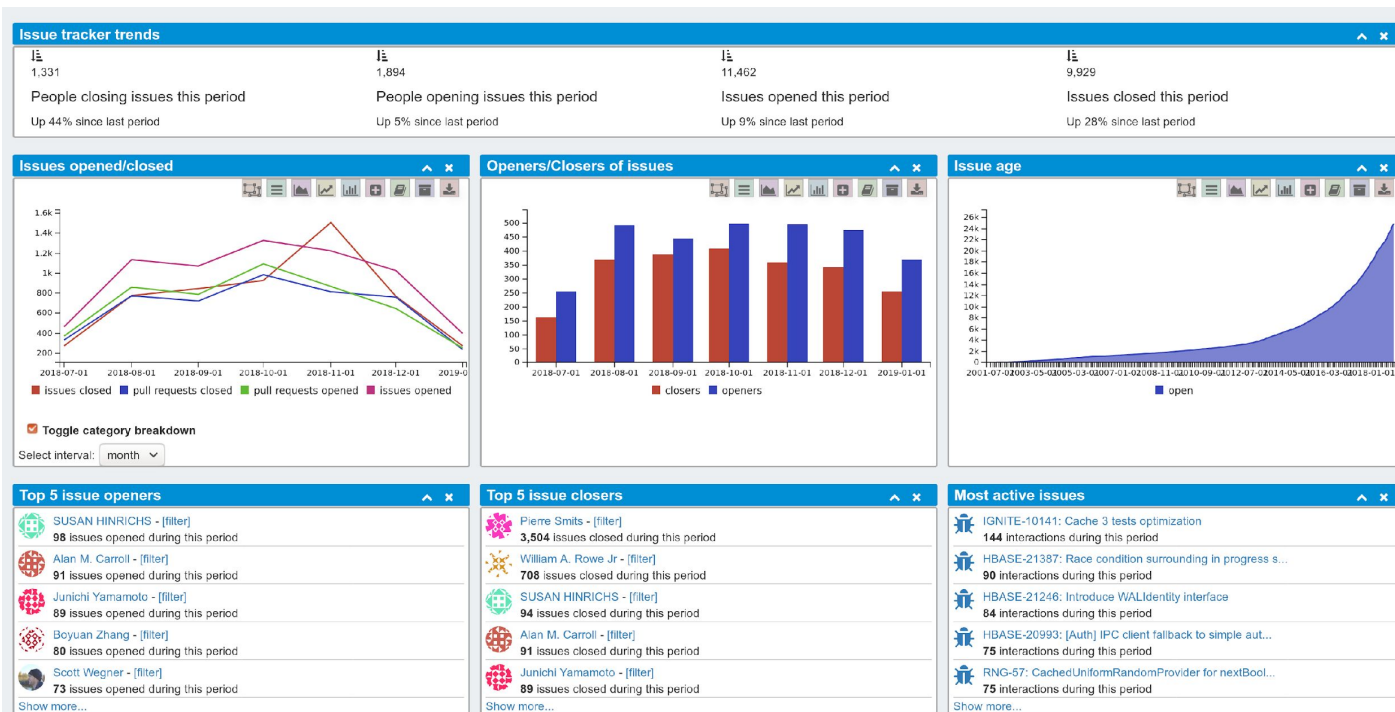
- Live demo at: <https://demo.kibble.apache.org/> !



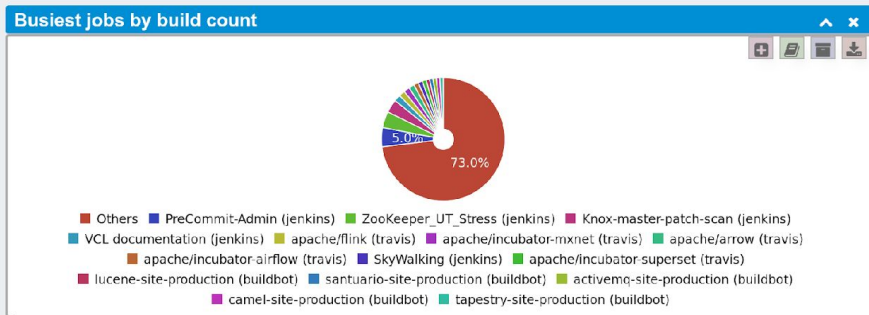
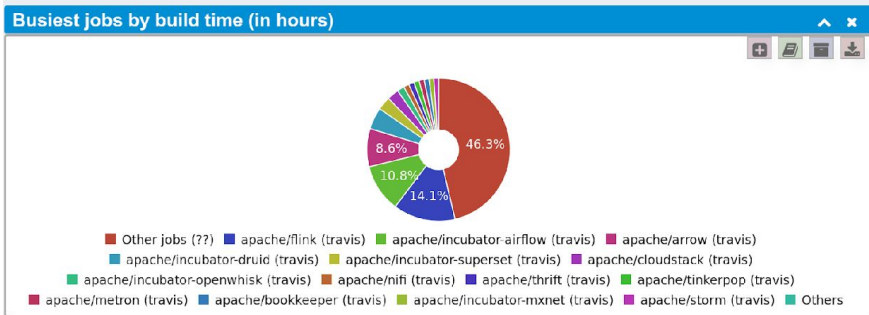
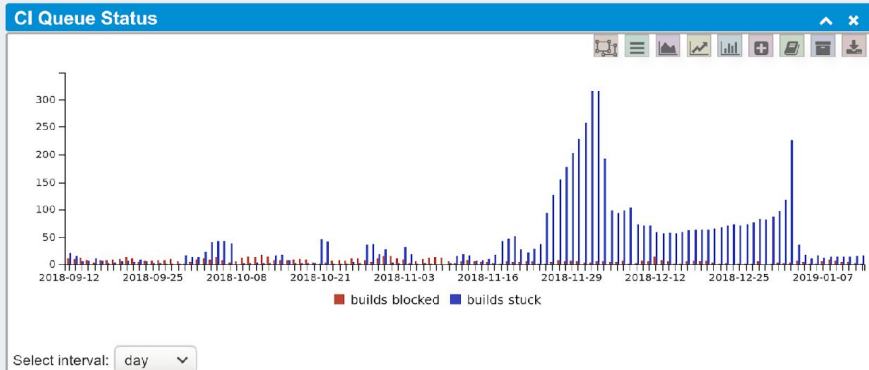
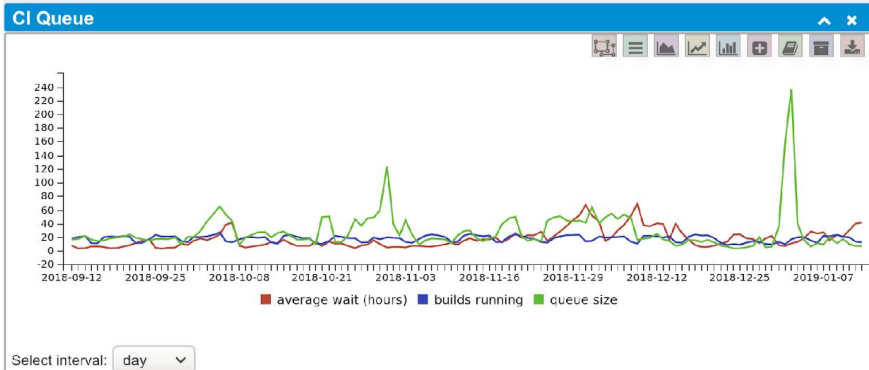
Code stats, continued...



Issue Tracking



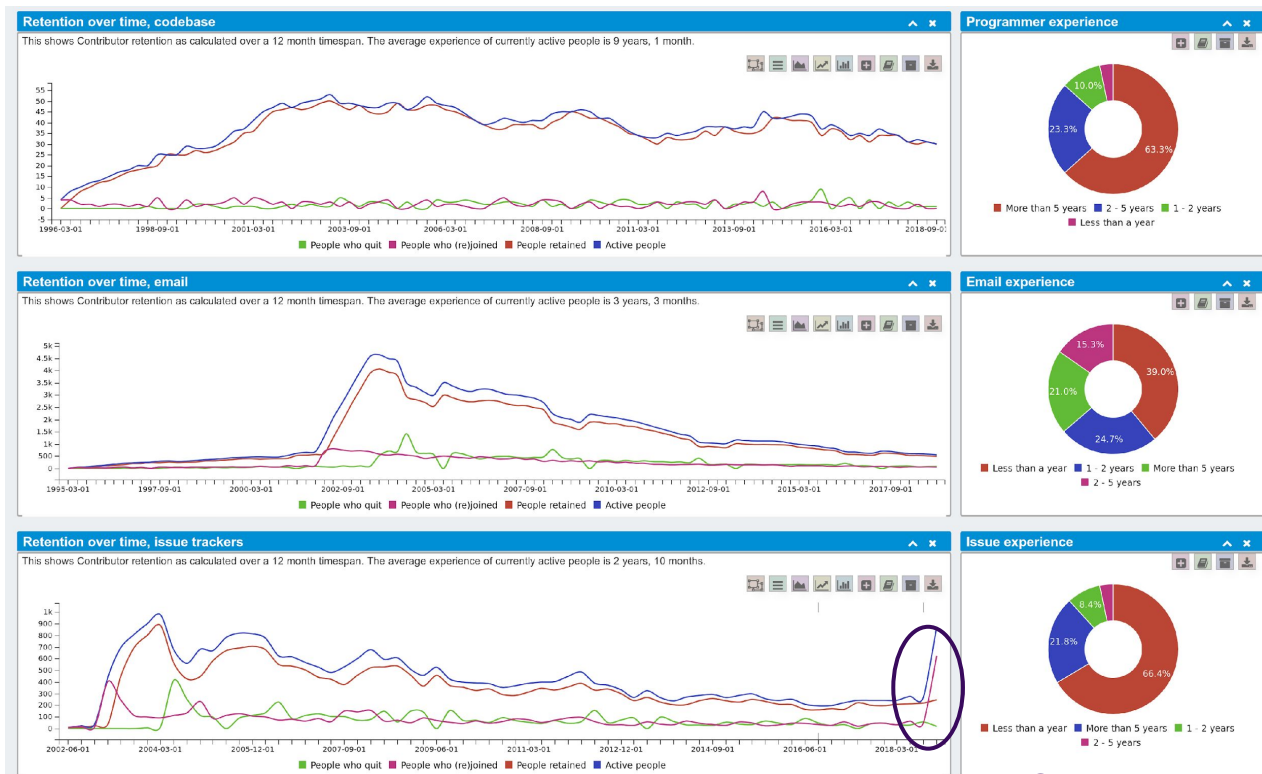
Continuous Integration tracking



Contributor Retention

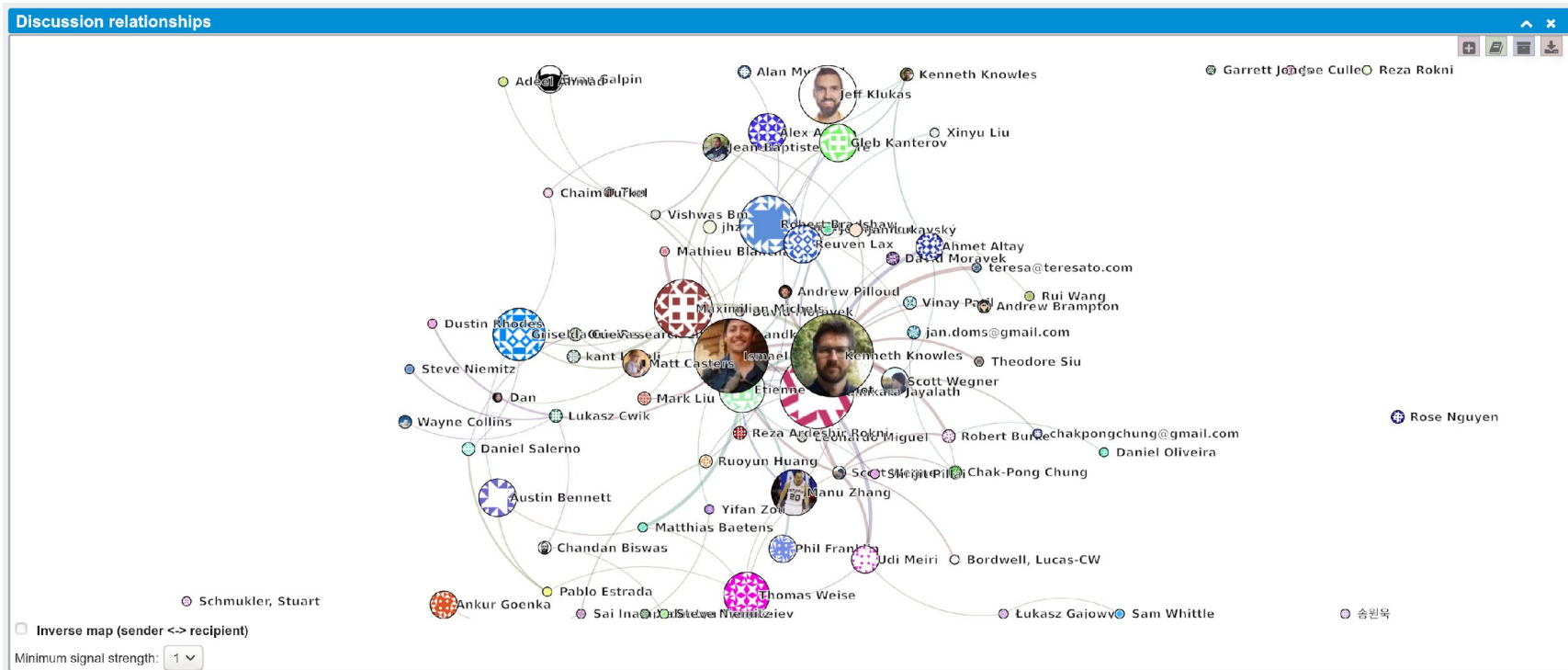


Okay, Let's Just Show An Anonymous But Declining Project!



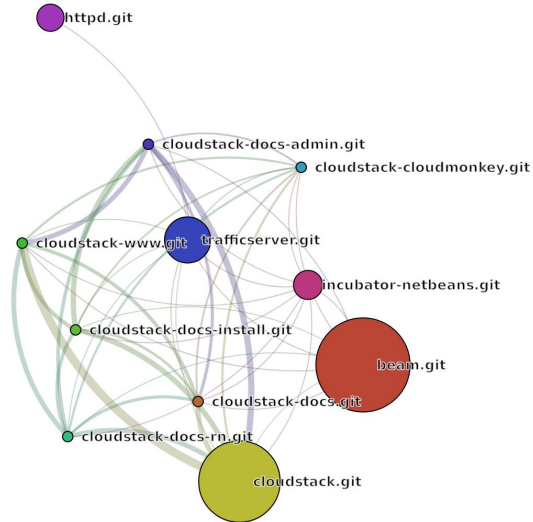
This is SPAM :(

Interactive Discussion Mapping



Code Contributor Mapping

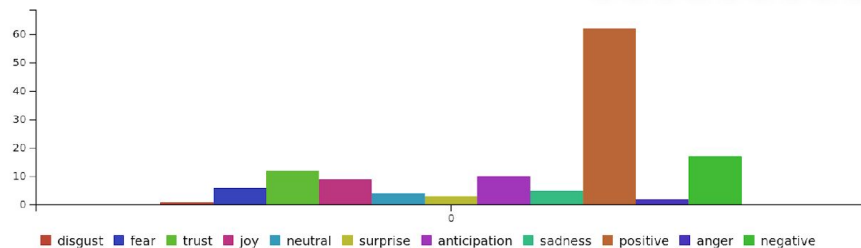
This is obviously much cooler in the interactive version!



Sentiment Analysis

Overall mail mood

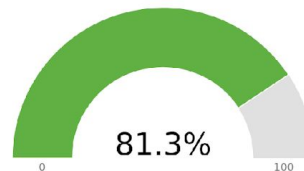
This chart shows the ten potential mood types as they average on the emails in this period. A score of 100 means a sentiment is highly visible in most emails.



Toggle relative/comparative mode

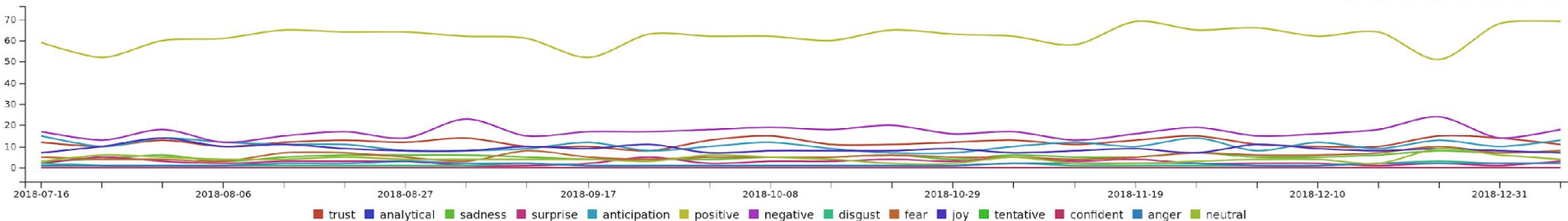
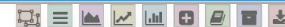
Mood gauge

This shows the overall estimated mood as a gauge from terrible to good.



Toggle relative/comparative mode

Mood over time



How To Contribute Or Get Help

.Join our mailing lists:

- users@kibble.apache.org
- dev@kibble.apache.org

.Read up on documentation:

- <https://apache-kibble.readthedocs.io/>

.Submit or review PRs or issues at:

- <https://github.com/apache/kibble>
- <https://github.com/apache/kibble-scanners>

Things We'd Love To See:

- Tighter integration with CHAOSS:
 - Understanding and conforming to specifications
 - Implementing more KPIs
 - Learning from what others think is important to both measure and display to users of Kibble (and other projects!)
- More ideas for visualizations and data scraping
- More users and contributors (please!)