
Putting Order into CHAOSS

Metrics to Analyze Code Development

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About us:



Ana Jimenez

@anajsana95

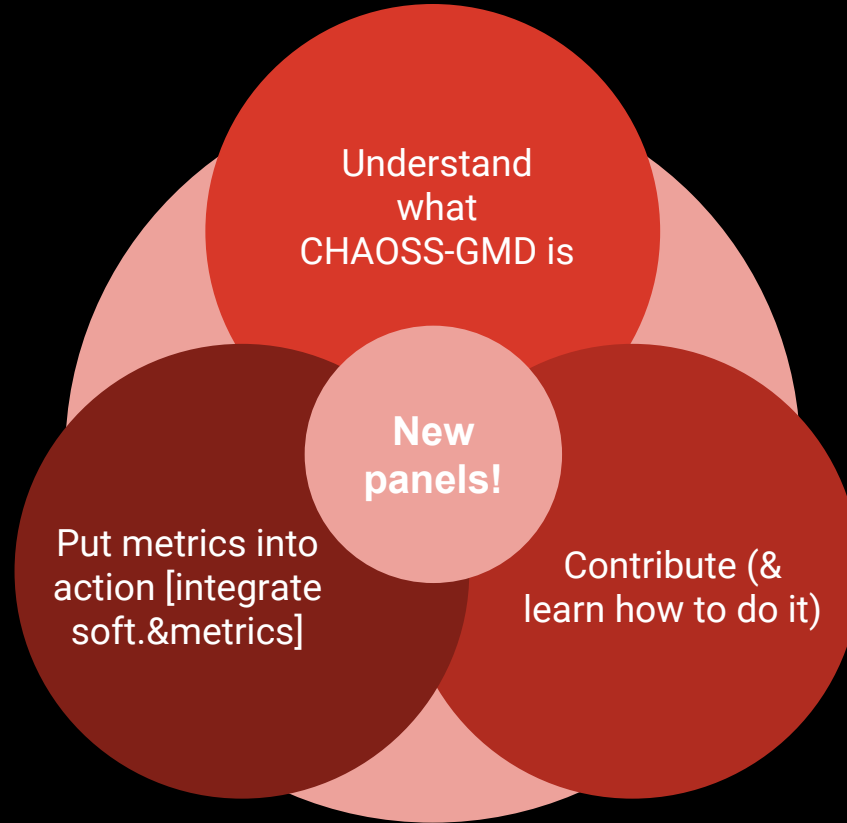
Marketing at bitergia, software
development analytics 🍷🍷 Gamer and
anime lover 🎮 Self-taught illustrator 🎨
日本語の学生 🇯🇵 España 🇪🇸 -USA 🇺🇸



Daniel Izquierdo

@dizquierdo

@Bitergia co-founder. Open and Inner
Source advocate. Love data analytics.
Python developer.



CHAOSS Growth,
maturity and
decline group

C.H.A.O.S.S = Community Health Analytics Open Source Software

chaoss / wg-gmd

Watch 13 Star 10 Fork 12

Code Issues 12 Pull requests 1 Projects 0 Wiki Insights

Working Group focused on Growth-Maturity-Divide metrics and software

117 commits 14 branches 0 releases 7 contributors MIT

Branch: master New pull request Create new file Upload files Find file Clone or download

sgoggins Merge pull request #63 from chaoss/jgbarah-patch-11 Latest commit 8a4514a 2 days ago

focus_areas	removed old folders from my branch	3 days ago
implementations	Rename some directories, to simplify structure	2 months ago
metrics	Merge branch 'master' into dicortazar-gmd-open-issues	2 months ago
use_cases	[use_cases] First try at adding metrics to a use case	23 days ago
.gitignore	link fix test	3 months ago
LICENSE	Initial commit	9 months ago
README.md	Update README.md	3 days ago
contributing.md	read me addressing issue 35	2 months ago
gmd_metrics.md	fix links	2 months ago
meeting_notes.md	dec 19th notes	14 days ago

README.md

Software
development
projects life cycle:

Growth, maturity
and decline



Identify
project's state
analyzing code
development:

How can I know my community health?

Identifying my project state:
Growth Maturity or Decline?



**Code
development**



**Community
growth**



**Issue
resolution**

Contributing

You can start by introducing yourself on the CHAOSS mailing list (see below) explaining your interest. Then, you can have a look at the archives of the mailing lists, at the minutes of past meetings, and at the

- [issues](#) and
- [pull requests](#) in
- [contents of this repository](#).

To contribute, of course you can participate in the in online meetings, and in issues and pull requests. Currently, main lines of work are:

- [Use cases](#). Proposal and discussion of use cases that help to understand metrics in context. You can propose your use cases, and/or contribute to refine those that have been proposed already.
- Focus areas (definitions, goals, questions). Currently, in the [definition of GMD metrics] we structure it in the following focus areas: [Issue Resolution](#), [Code Development](#), and [Community Growth](#).

For each area of interest, we're following the [goal-question-metric methodology](#) defining questions and metrics that help to answer them.

You can contribute by proposing new goals for a focus area, or new questions for learning about those goals, or new metrics for answering those questions. Or by helping to refine goals, and questions.

See more details in the [contributing file](#).

We're in the process of discussing questions and metrics. Meanwhile, below is the former list of metrics, and their related questions.

Metric	Question
Pull Requests Merged	What is the number of code commits?
Lines of Code Changed	What is the number of lines of code changed?
Code Reviews	What is the number of code reviews?
Pull Request Merge Duration	What is the duration of time between code merge request and code commit?
Code Review Efficiency	What is the number of merged code changes/number of abandoned code change requests?
Maintainer Response to Merge Request Duration	What is the duration of time for a maintainer to make a first response to a code merge request?
Code Review Iteration	What is the number of iterations that occur before a merge request is accepted or declined?
Forks	Forks are a concept in distributed version control systems like GitHub. It is a proxy for the approximate number of developers who have taken a shot at building and deploying the codebase <i>for development</i> .
Pull Requests Open	Number of open pull requests.
Pull Requests Closed	Number of closed pull requests.
Pull Request Comment Duration	The difference between the timestamp of the pull request creation date and the most recent comment on the pull request.
Pull Request Comment Diversity	Number of each people discussing each pull request.
Pull Request Comments	Number of comments on each pull request.

Contributing
[for a
newcomer]



Contributing

Open Ticket & Discussion

Open ticket at
grimoirelab-sigils
Have discussion if needed

Creation Process

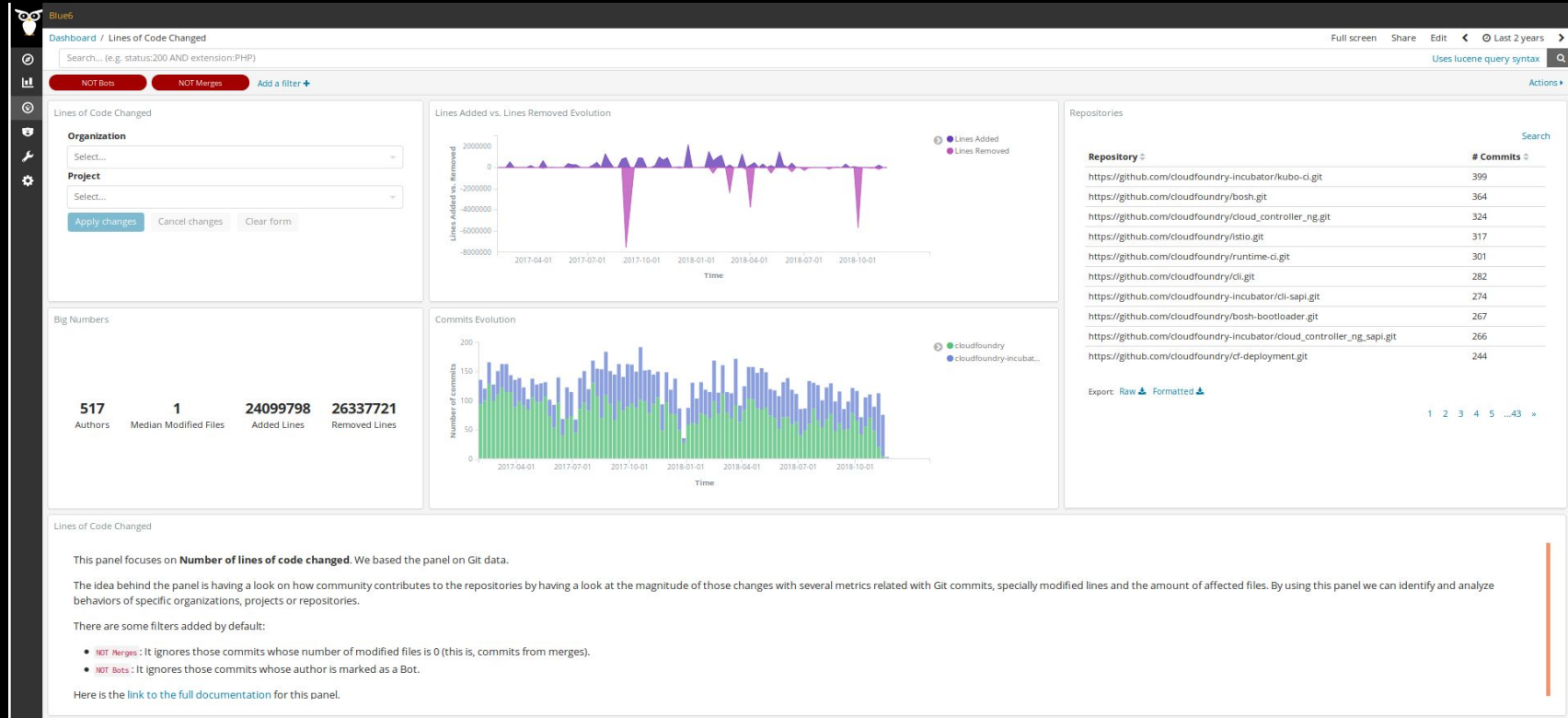
Panel
Documentation
Export panel as JSON file
Export documentation as md
file.
Pull Request to
grimoirelab-sigils

Review & Merge

The maintainer may look for
improvements
(There were indeed!)
When ready to go, merge the
panel.

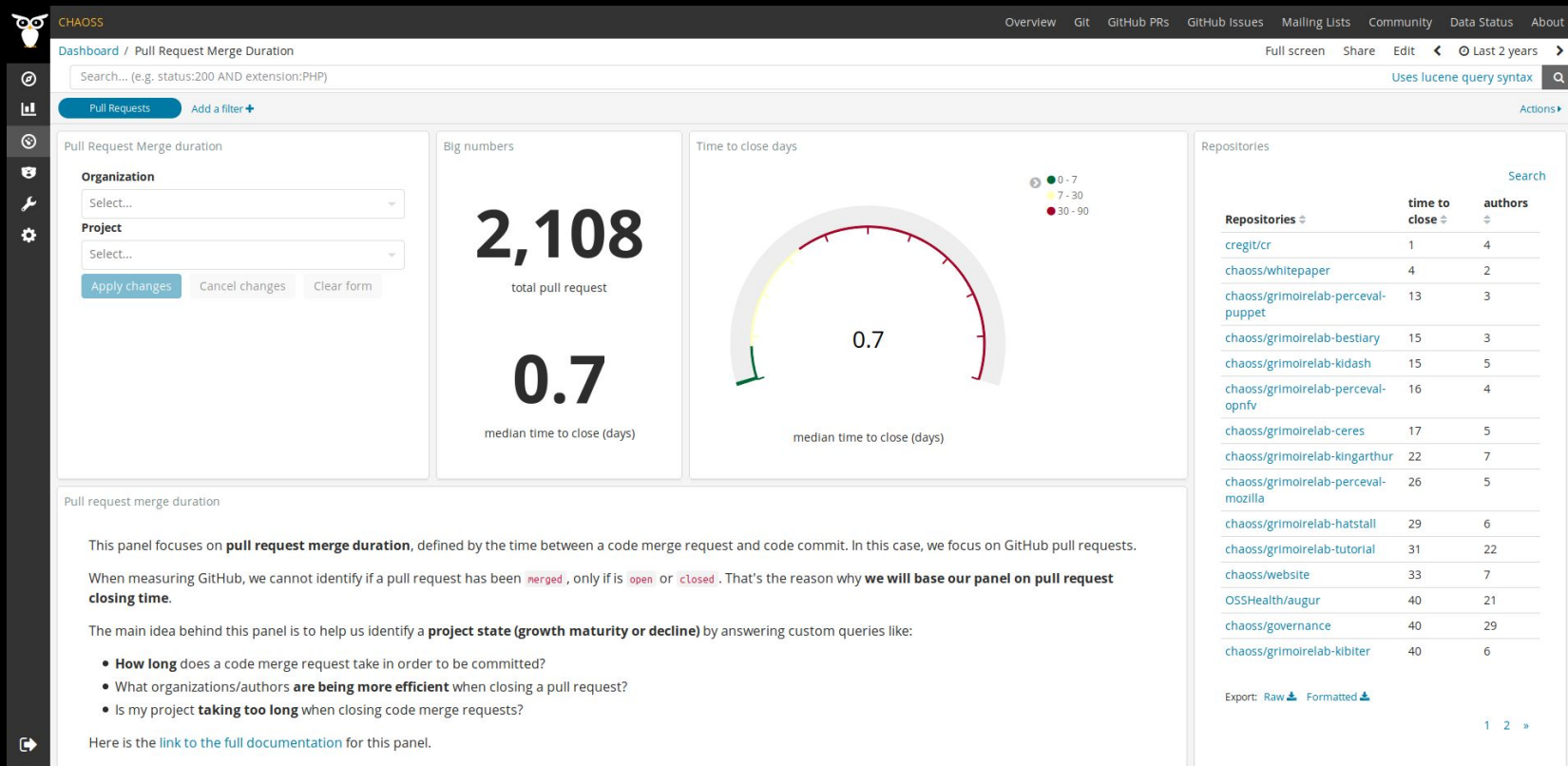
Putting metrics
into action:

Lines of code changed panel visualization:



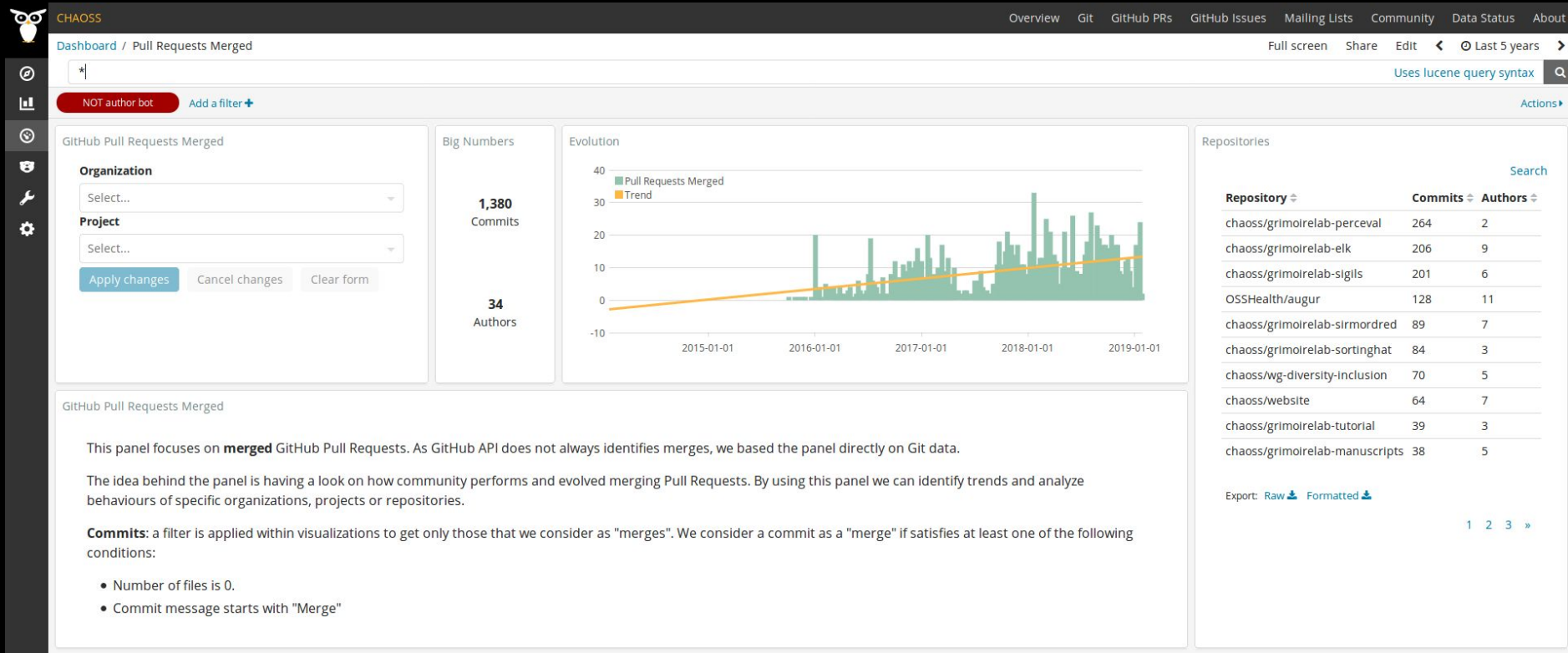
Putting metrics
into action:

Pull Request Merge Duration panel visualization:

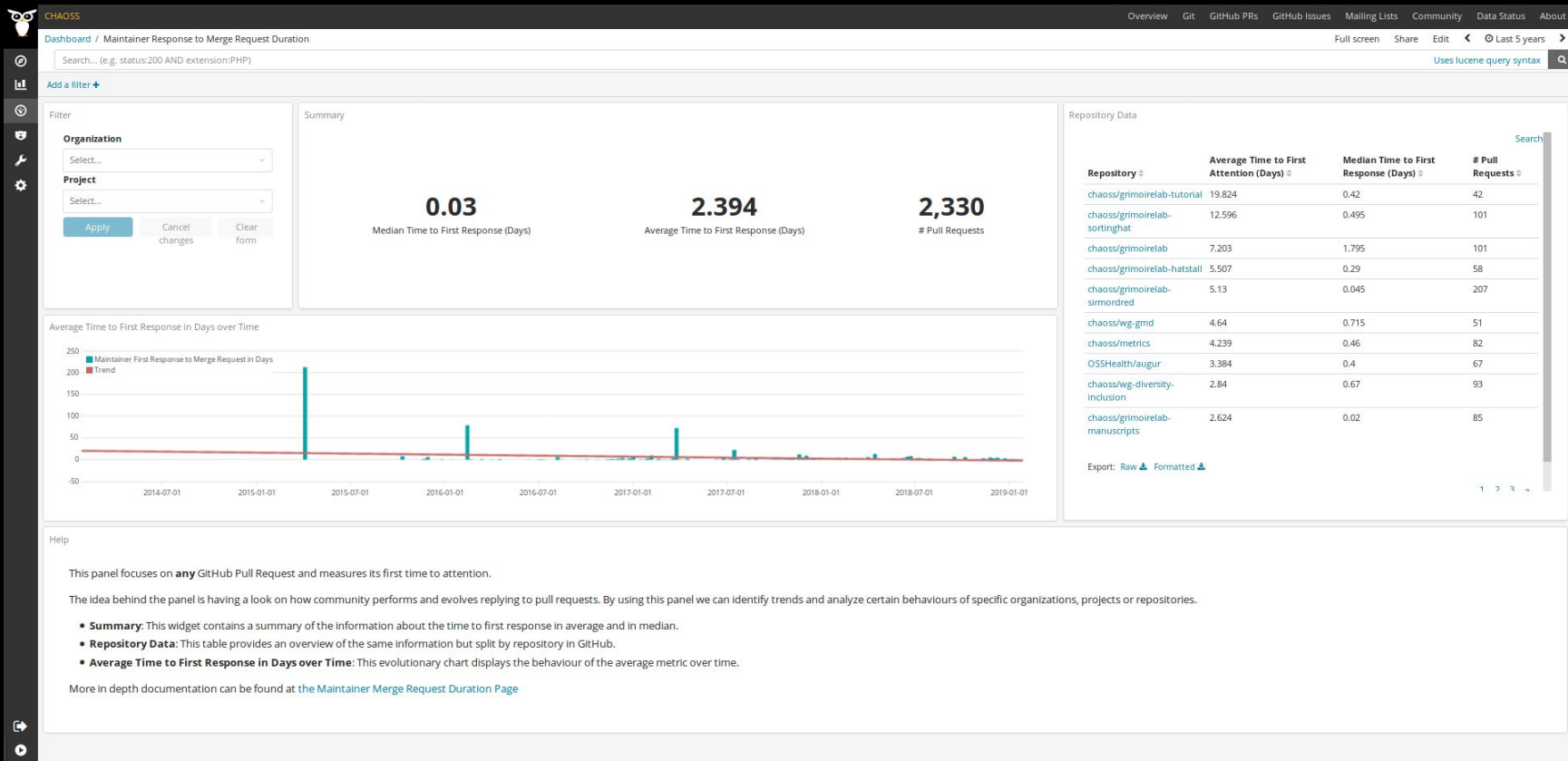


Putting metrics
into action:

Pull Requests Merged



Maintainer First Response



What we achieved

Understand

Contribute

Put metrics into action

New panels!

Further Work

Match panels and my
pet project GMD status

Produce new panels

Enter into discussions
in the working group

Let's go for questions!



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