

A Metric Dashboard for Inner Source

Summary

Inner source (IS) is the use of open source development practices within an organization. In inner source, companies open up source code internally so that all employees can see, reuse and contribute changes to it independently of their team. Managers and other individuals in software industry show an increasing interest in measuring inner source collaboration and showing metrics about it.

Our “collaboration management suite” (CMSuite) provides the basic infrastructure for calculating and visualizing inner source metrics on a dashboard. In this thesis, the student will develop own metrics and extend the dashboard infrastructure where necessary. A variety of roles in an organization need different insights. This thesis will focus basic descriptive statistics and patch-flow metrics from the perspective of two roles (people responsible for the whole inner source program and for one specific inner source project).

Work Results

- Literature review
 - Identification of typical inner source metrics, visualizations (jointly with supervisor)
 - ... from proprietary reports (FAU patch-flow reports)
 - ... from scientific literature (supervisor will provide a list)
 - ... from third party software (Bitergia, Github, Gitlab)
- **Goal: Show typical patch-flow and collaboration metrics in the CMSuite dashboard**
- Work results
 - Identified and documented requirements
 - Implemented inner source metrics, visualizations
 - Implemented metrics (Kettle KTR files)
 - Implemented CMSuite specific steps
 - Extended CMSuite dashboard infrastructure
 - ... to visualize implemented metrics on client-side (Angular 6)
 - ... to calculate, provide implemented metrics on server-side (Java, Jersey)
 - Discussion of implemented metrics, visualizations needed
 - ... laying out roles interested in the metric
 - ... describing information need / management need satisfied
 - Evaluated solution and implementation against requirements

Supervisor

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