

Measuring Patch-Flow at an Automotive Company

Summary

Inner source (IS) is the use of open source development practices within an organization. The source code of selected components is opened up internally for all employees to read, reuse, and contribute to. IS leads to the phenomenon of patch-flow. Patch-flow is the flow of code contributions across organizational boundaries such as organizational unit boundaries. We developed a software tool (the patch-flow crawler) to measure patch-flow in organizations.

In this thesis, the student will analyze the patch-flow within *****. For doing so, the student extends our patch-flow crawler to (1) consume the APIs of Github Enterprise and *****'s organizational databases, (2) extracts the patch-flow data at *****, and (3) performs an exploratory/descriptive analyses.

Work Results

- Literature review
 - Inner source, patch-flow method
 - Potentially literature on exploratory data analysis; previous patch-flow analysis
- Work results
 - 1 Extended of our pre-existing Java patch-flow crawler for use at *****
 - ... to consume data from Github Enterprise
 - ... to consume data from *****'s organizational database
 - If no organizational database: ... to support manual input of organizational data
 - 2 Extracted Patch-flow data from ***** (likely proxied by Supervisor)
 - 3 Performed exploratory/descriptive analysis of the patch-flow within *****

Supervisor

Maximilian Capraro, maximilian.capraro@fau.de

Prof. Dr. Dirk Riehle, dirk.riehle@fau.de

Open Source Research Group
Computer Science Department
Friedrich-Alexander University