

Measuring the Patch Review Process in Open and Inner Source

Summary

Inner source (IS) is the application of open source development practices within the confines of an organization. In both open source (OS) and IS, code contributions to projects (“patches”) are reviewed by the project owners and either rejected or accepted. The used patch review process allows us to gain insights about the development efficiency and consequently the quality of an IS endeavor.

In this thesis, the student measures and compares the patch review processes (patch rejections, time to decision,...) in an IS organization and a set of OS projects. For doing so, the student investigates code review tools most prominent in IS and OS and develops a Java tool that collects patch review data from a subset of the identified tools.

Work Results

- Literature review
 - Patch review process in OS, IS
 - Patch rejection and acceptance in OS, IS
- Contributions / Research questions
 - How much patches are rejected in OS and IS?
 - How long do patch reviews take?
 - What are the differences between OS, IS patch-review processes?
 - What are the differences between patch review and “regular” review process?
- Work results
 - Investigated code-review tools common in IS and OS; identified most relevant review tools
 - **Developed a model and tool for crawling patch review data from selected review tools**
 - Framework + extension for Github and additional data source
 - Explored data towards (above) research questions, presented changes over time

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