A Case Study or Experiment in Open Source Patch Submission

This Studienarbeit analyses the patch submission process of a new feature to the Linux kernel and related projects using a specific example. A major challenge is the coordination of multiple patches to different yet interdependent projects. The analysis is based on a yet-to-be-chosen research method, e.g. case study or experiment, with the goal of determining best practices and likely successful strategies for submitting patches to large well-known open source projects.

Work Description

- Review of literature on Patch Submission
 - General reception of patch submission experiences
 - Summary of general patch submission strategies, "best practices", e.g.
 - Order patch submissions by code dependencies
 - Use kconfig variables to bracket ACPI patch
 - Use C macros to enable/disable patches
 - Match code quality with project neediness
- Definition of patch submission strategy for Docking Station support, e.g.
 - ACPI and udev patches before Gnome and KDE patches
 - Depending target project, less code quality effort
- Creation of original patches to work with
- Choice of research approach, e.g. case study or experiment
 - Used to justify patch submission process
 - To be discussed with advisor
- Documentation of patch submission process
 - Which patches where when
 - Back-and-forth (if so) between submitter and maintainer
 - o Documentation of changes, strategy adaption

Advisor

Dirk Riehle Universität Erlangen dirk.riehle@cs.fau.de 2011-08-15