

THE EVOLUTION OF DEFECTS AND PATCHES IN SOURCEFORGE PROJECTS: A QUANTITATIVE ANALYSIS

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Abstract

Open Source repositories are the primary resource where users look when they need to adopt new Open Source Software (OSS). Their choice is guided by a number of factors. In this work, we focus on two factors that are usually taken into account: the defect content of the software code and the ability of a community to provide short-term support if problems are uncovered. Specifically, we quantitatively analyze the evolution over time of the defect content and patches of Sourceforge projects, to evaluate the quality of an OSS product and the ability of its community to provide short-support when needed. Among other results, we find out that, on average, the more a project is stable, the more defects are uncovered, and the longer it takes to fix them.