Effective Reuse Procedure for Open Source Software

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ABSTRACT

Recently, open source softwares (OSSs) are widely used in various domains through open, copy revise, and release [1][2]. The companies are trying to apply to software development approach by utilizing open source software. The OSSs are new alternatives to solve the limits of the previous software developments such as quality of software, time and cost of development [3]. Accordingly, various aspect analyses of OSSs should be performed [4]. However, the researches about the detailed procedures and methods to utilize OSSs in practical industry are immature [5]

Most of OSS-Based Applications (OBA) are similar to COTS (Commercial-Off-The-Shelf) based on development of COTS-Based Applications (CBA) [6]. That is, suitable selections of OSS or COTS, modification, integration are similar. However, detailed procedures between OBA and CBA development are different. When we develop based on OSS, we use the directly modification but CBA is not use the directly modification since COTS doesn뭎provide a source code. When we develop an application based on OSS, we may not apply to the traditional process models. Therefore, newly defined procedures should be required to reuse the OSSs.

In this paper, we propose the comprehensive procedures based on Meng Huang뭘process [6], component based development and related research about OSS [7]. We define 4 steps and 11 activities. To derive an effectiveness and improvement for each activity, we may apply proposed procedures to evaluating real projects as supporting tool for small scale software development methodology based on OSS. To search of OSS, we reference the two sites as http://www.sourceforge.net [7], http://www.freshmeat.net [8].

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