

Quality Control in EMI

Wednesday, 10 April 2013 12:00 (15 minutes)

Impact

The adoption of quality controls has a direct impact on the ability for EMI to release stable, reliable software, and satisfy user requirements. Considering the volume and complexity of developed software, the risks associated with low software quality need to be mitigated. Poor quality can increase the maintenance cost, lead to schedule overruns and negatively impact user satisfaction. To improve the quality of the developed software, adequate quality policies must be adopted as well as the means to control and improve quality should be well propagated among developers.

Summary

The goal of this presentation is to provide an overview of the Quality Control task within the EMI project concerning the verification of released software products, the monitoring of internal procedures, the measurements of quality parameters. More precisely, the Quality Control (QC) pertains with the monitoring and verification of project outcomes in order to see whether they comply with quality standards set out in the EMI Quality Model. Operating throughout the project, its aim is to identify unacceptable or non-conformable results and inform project executive boards about their existence so that corrective actions can be undertaken to prevent possible negative impacts on project's results.

URL

<https://twiki.cern.ch/twiki/bin/view/EMI/TSA27>

Description

The adoption of quality standards must be sufficient to guarantee, to a high degree of confidence, that all EMI products (software components, documentation, etc.) meet stakeholders requirements, in terms of acceptance criteria, and do not contain defects or bring new security vulnerabilities. Through the periodic measurement of quality metrics, the Quality Control activity verifies which is the degree of compliance for those selected characteristics and sub characteristics in the EMI software. It also controls that internal procedures are correctly implemented, verifying that any released product satisfies the defined quality policies (i.e. release, change management, packaging, testing, etc.). Any change to internal procedures are put in evidence and communicated to project's bodies that, on the base of project's priorities and objectives, determine which of them are important to apply.

The presentation will report the tools, the procedures and the results of the quality control activity for the EMI software products being released during the whole project including final comments of the improvements made after the introduction of quality procedures. Results about the major quality achievements – EPEL and DEBIAN packages compliance, availability of Regression tests for any medium/high priority defect, availability of Unit tests for any new feature – will be also presented.

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Session Classification: Community Platforms

Track Classification: Community Platforms (Track Lead: P Solagna and M Drescher)