The Quality Process in a Professional Context: Software Industry Case

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Abstract — In the current context of the software's market, the stress is laid on the cost, the calendar and the functionalities. In order to ensure these criteria, the implementation of a step quality ISO 9001:2008 is necessary. The quality of a developed product is influenced by the quality of the production process. This is important in software development as some product quality attributes are hard to assess. For these reasons, there are several standards of quality management and processes' management that constitute an essential pathway to improve quality. The use of standards is an important factor of economy, efficiency and quality promoting better adaptation of products, processes and services to purposes assigned to them, through prevention of barriers to trade and facilitating international technology cooperation.

In industry, speaking about quality implies focusing on production, but in software industry we must speak design. The text of ISO 9001 standard covers design but gives more importance to the production. So in order to be applied to the software field, the ISO 9001 standard must be explained further. So we start from a strong will to create the necessary conditions so that the quality standards in the companies would be oriented into the software field. It would be interesting to develop an approach to adapt quality standards (mainly ISO9001: 2008 standard) which are basically oriented to the industrial sector into the software field. The ISO 9001:2008 standard is general and provides the organizational requirements needed to implement a quality management system. Our work is based on the adaptation of this standard for a quality management system related to the software production.

This communication includes the consideration of the requirements of ISO9001:2008 standard. We will provide more interpretations of these requirements, and we will study the state of the art of researches that have attempted to adapt the ISO 9001standard for the software field and working on the update of the guidelines of the ISO 90003 standard in relation to the requirements of ISO 9001:2008 standard. In addition to that we will search for the potential results for the adaptation of ISO 9001:2008 requirements to the field of software in order to consider these results as a starting step for our work.

Keywords — **software quality process, ISO 9001:2008 standard**