

Application of Statistical Process Control to Improve Software Process Performance: a Sri Lankan Case Study

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Abstract: In recent years, a growing number of software organizations are demonstrating that Statistical Process Control (SPC) techniques can be applied to the software process. This paper illustrates the application of the XmR control chart in improving customer response time in a software process in a Sri Lankan IT Company. The study was carried out in two phases. During the first phase, the process was analyzed using SPC techniques in order to understand the stability and the capability of the process and in the second phase reasons for process failures were identified through a survey taking all employees involved in the software process, through questionnaires, interviews and focus group discussions. The key reasons for process delay were found to be the poor work distribution and lack of process information. The study recommends the introduction of continuous improvement teams with the use of SPC as a tool to monitor and rectify the process, so as to improve customer response time.