

Process Modeling for Requirements Engineering: A Medical System Case Study

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Abstract. The Unified Requirements Modeling Language (URML) was created to support early systems engineering; permitting the capture of process, hazards, threats and mitigations during the elicitation process. It has been used on Siemens projects, but to date they have been proprietary, precluding public exposure and limiting the critical review needed to refine and improve the language. To that end, a standard medical process, phlebotomy, was modeled in detail to determine the efficacy of the language. One of the authors of this paper is an expert in the area of medical diagnostics and provided the domain expertise. The modeling experience exceeded our expectations, and provided some unanticipated benefits. The results of our study are presented in this paper.