

# Performing Early Feasibility Studies of Software Development Projects Using Business Process Models

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***ABSTRACT***—A new approach to perform feasibility studies using business process models is proposed. The utilization of the improved Role Activity Diagram notations has led to the extraction of the number of candidate use cases in software systems which naturally led to software cost estimation much before the availability of detailed system requirements. This enables project managers to perform their what-if analysis to inform the applicability and profitability of the anticipated software system. The process of cancer registration in Jordan is used to demonstrate the proposed approach and showing its ease and timeliness. Finally, further work is planned to validate and evaluate the proposed approach using a number of current software projects.

***Index Terms***—Business Process Model, Feasibility Study, Software Cost Estimation, Use Case Model.