

Master thesis proposal: “Abstracting from Business Process Details”

Background

In order to execute, study, or improve operating procedures companies document them as business process models. Complex processes result in large process specifications that represent all the details including possible alternative task handling or exception handling scenarios. The overall process logic gets hidden in the numerous compositions of process modeling constructs. Every model is a representation of a business process used by a certain group of stakeholders. The desired level of model granularity depends on a stakeholder and a current task. Top level management prefers coarse grained process descriptions facilitating fast and correct business decisions, while employees directly executing processes appreciate fine granular specifications of working procedures. Process model abstraction mechanisms allow generalization of the detailed process models while preserving control flow order constraints.

Task

The thesis work will start with overview and consolidation of various process model transformation techniques and study of their applicability for the purpose of process model abstraction. At each process model abstraction step some process fragment gets replaced by a generalized version of it. Thus, process model fragmentation technique suitable for model abstraction should be proposed. As a start, one might refer to process decomposition onto single entry single exit (SESE), multiple entry multiple exit (MEME) regions, etc.

Existing process model abstraction mechanisms should be extended. Derived concepts should be implemented in a tool prototype and integrated in the ORYX editor.

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