

Abstract

When assessing the usability of BPM technologies enterprises have to rely on vendor promises or qualitative data rather than on empirical or experimental research. To address this need Cheetah Experimental Platform (CEP) has been developed, fostering experimental research on business process modeling by supporting all phases of controlled experiments. CEP provides frequently used components allowing for their assembly to experimental workflows. Additionally, CEP supports experimental execution by mitigating risks endangering data validity through better user guidance. Most importantly, CEP opens new opportunities for research on process modeling. Researchers gain the possibility to not only inspect the resulting process model, but also investigate *how* the process models were actually created.

Experimental Design

The majority of controlled experiments consists of a series of tasks that have to be executed by the experiment's subjects, referred to as *Experimental Workflow*. CEP offers a set of frequently used components including surveys, modeling tutorials as well as Cheetah BPMN, Change Pattern and DecSerFlow Modelers.

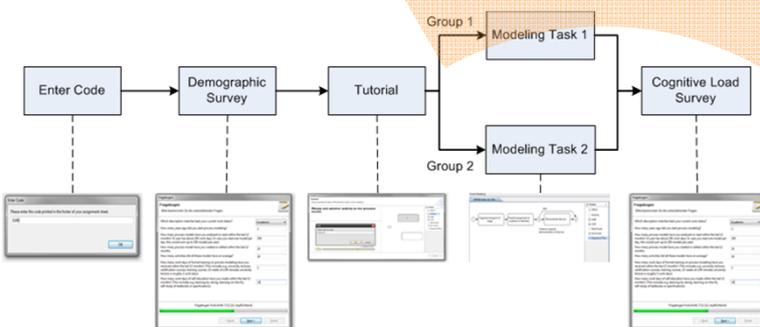


Fig. 1 Experimental Workflow

Experimental Analysis

Data Export. Data collected during the experiment can be exported as Comma-Separated Values (CSV) and Mining XML (MXML) files.

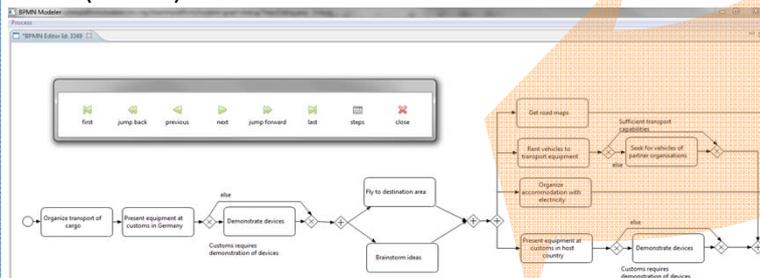


Fig. 3 Cheetah Analyzer

Replay of the Process of Process Modeling. Cheetah Analyzer allows for a step by step replay of the process of process modeling revealing insights into the process of process modeling.

Experimental Execution

User Guidance. When executing the experimental workflow configuration, CEP guides the user through the experiment ensuring that the setup is followed.

Process of Process Modeling. Traditional empirical research is mostly focused on measuring the aspects of the resulting process model. CEP allows researchers to not only inspect the resulting process model, but also investigate the process *how* the process model was created.

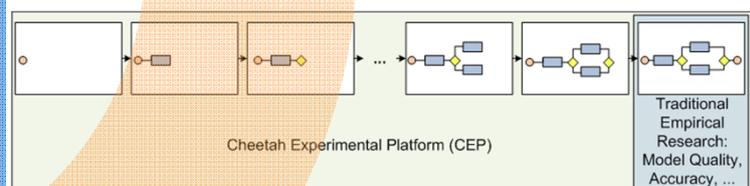


Fig. 2. Process of Process Modeling

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For more information go to <http://cheetahplatform.org> and download a free copy of CEP.