



Diplomarbeit

Automated Generation of JIAC AgentBeans from BPMN Diagrams

Fachbereich *Agententechnologien in betrieblichen Anwendungen
und der Telekommunikation (AOT)*

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Die selbstständige und eigenhändige Anfertigung dieser Diplomarbeit versichere ich an Eides statt.

Ort, Datum

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Abstract

Zusammenfassung

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1. Introduction

1.1 Motivation

Over the past few years more and more software developers have been adopting the principle of *Model Driven Engineering*(MDE) where they no longer focus on writing programs but on creating a set of models which define the software. By modelling the software, the developer creates documents that provides an abstract view of the software system, independantly from the plattform or a specific programming language, making it understandable for non experts i.e. the stakeholders. These models will then be the basis for the implementation. A significant number of the so called CASE (Computer Aided Software Engineering) tools have been developed to support this methodology. Besides providing the developers in creating and editing the models, most of these CASE tools are also equipped with transformation features that allows us to transform the model into text or even executeable Programs, thus increasing efficiency in the software development process.

An example of such tools is the ***Visual Service Design Tool (VSDT)***, developed by Tobias Küster in scope of his Diploma Thesis back in 2007, which provides the transformation of BPMN (Business Process Modelling Notation) to BPEL(*Business Process Execution Language*) and JIAC (Java-based Intelligent Agent Component-ware) framework. In the scope of this work, a plugin to VSDT will be developed to enrich it's transformation feature with a code generator that will transform BPMN models into executeable Java Code, or JIAC AgentBeans to be more specific.

2. Mapping BPMN to Jiac AgentBeans

3. Implementation of the Mapping

4. Fazit

Literaturverzeichnis