ABSTRACT

INTEGRATION VON WERKZEUGEN IN HETEROGENE, PROZESSGESTEUERTE SOFTWAREENTWICKLUNGSUMGEBUNGEN BY OLAF NEUMANN

(IN GERMAN)

For process centred software engineering environments (PSEE) in a real world scenario there is very often no possibility to achieve a homogeneous environment. A PSEE that should use various different development tools in a flexible way without losing the chance of being controlled by a process engine has to integrate tools and the process engine (PE) as tightly as possible. This thesis discusses how to aggregate PSEE with development tools in such a way that the integration of tools is possible without changing the tools themselves and also without losing the controlling functionality of the PE.

As result of a detailed analysis of the functionalities needed to perform the process control task, a set of requirements for a PSEE and its corresponding process modelling language is identified as the basis for the integration of a heterogeneous tool set. Based on these requirements the Tool Integration Concept (TIC) is defined which specifies a framework that assures the fulfilment of the requirement set when used as basis of a PSEE implementation. Furthermore a high-level architecture is defined as part of TIC to support the adaptation of existing PSEE and the development of new PSEE respectively to conform to TIC.

The newly introduced concepts are evaluated exemplarily using ESCAPE as PML and Merlin as PE.