

Workshop 1: Abstract Layers – Extending the Potential of the Subject-Orientated Modeling Paradigm

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1 Scope

Classical subject-oriented process modeling with the Parallel Activity Specification Schema (PASS) is a very usefully and powerful description approach. It is, however, in itself somewhat limited due to its purely defining/deterministic nature (AS-IS) and lacks certain degrees of freedom necessary for describing complex aspect in situations where not all details of a process can be determined preemptively.

The principle paradigm of subject-orientation though is not limited to that definition approach and can be extended.

The workshop is a practical demonstration/introduction to, and open discussion of potential abstract extension of modeling capabilities that are possible with e.g. the Abstract Layered Extension to the modeling language PASS (ALPS).

ALPS envisions the integrated usage of classical process description techniques together with concepts such as, abstraction hierarchies, modeling-by-restriction, or case-based-reasoning (CBR) that have been discussed in context of the S-BPM ONE for several years.

Similar approaches are the jCPEX concept with its behavioral interfaces or the Actorsphere concepts of ActNConnect.

The question to be discussed during the workshop is the potential for the approaches in regards to allowing groups of modelers spread across geography, (company) cultures, and time

to create and/or integrate executable (business) process models when necessary or allow automated execution.

Furthermore it will be discussed whether such advanced process expression concepts are necessary/viable at all for future information systems or design of them.

2 Topics of Interest

The topics of interest for papers include, but are not limited to:

- Description concepts for networks of heterogeneous agent types (human, machines and software)
- Agent behavior specification in a network of agents
- Modeling networks of enterprises - business and technology view
- Agility in cross-enterprise value networks - business and technology view
- Specification concepts for networked production and business processes
- Information modelling incl. semantic modelling
- Software engineering for distributed system architectures (shared memory, shared nothing, ...)
- Industry 4.0 and Edge/Fog/Cloud computing
- Cyber-physical-production-systems especially in combination with a process/business perspective
- Safety and Security in distributed/decentralized production systems - business and technology view

