Process-Aware Support for Collaborative Knowledge Workers

**Process-Aware Task Management**

proCollab employs processes, task trees, and tasks as its key components. Altogether, these components provide the foundation for a generic, but lightweight support of knowledge-intensive processes. Further, a wide range of prospective (to-do lists) and retrospective task lists (checklists) are supported to enable better task coordination and synchronization within processes.

**Process & Task Lifecycle Support**

To establish a sustainable support, knowledge workers may define process, task tree, and task templates in proCollab. These templates enable the definition of best practice for planning and coordination as well as the preservation of existing process knowledge. At run time, knowledge workers may instantiate specified templates or create process, task tree, and task instances from scratch.

**Domain-specific Customizations**

To support a wide range of processes and task lists, proCollab allows for the domain-specific customization of its key components: processes, task trees, and tasks may be customized using specialization types to feature additional properties, required constraints, or custom states. The latter, in particular, are controlled by an advanced state management concept using refinable state models.

**Awareness and Synchronization**

The awareness of who is doing what is crucial for knowledge workers to effectively plan and conduct work in the scope of knowledge-intensive processes. Providing a web-based, real-time collaboration platform, proCollab allows knowledge workers to continuously update and perceive the required information, while coordinating and synchronizing tasks.

**Template Configuration**

proCollab entails a sophisticated configuration concept to enable the definition of templates being usable in different application scenarios. Template configurations are based on context-aware situations and rules. Consequently, at run time, templates are adjusted and instantiated taking the current context and knowledge workers’ requirements into account.

**Template Evolution**

To enable the controlled evolution of templates, proCollab incorporates algorithms to analyze the usage of process and task tree instances. Based on the results, process and task tree templates may be optimized. For example, the frequent removal of a specific task from many task lists may lead to the removal of this task from an existing task tree template.