

# Business Process Modeling (BPM) 2011

## Demo Track

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Editors: Heiko Ludwig, Hajo Reijers

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## Introduction

The BPM 2011 Demo Track provides interesting insights into recent developments in systems for business process modeling and management and in application of process management technology in practice. The quality and the diversity of the accepted papers reflect the maturity and the increasing significance of the academic field and its adoption into organizational IT environments.

The Demo Track accepted a total of 12 demonstrations to be showcased at the conference. Of those demonstrations 6 demos are accompanied by demo paper describing its background, published in these Demo Proceedings. The other 6 demos are described by a brief abstract in these Demo Track Proceedings.

A Demo Program Committee selected the demos from the submissions. We thank the program committee for the diligent work and the Organizing Committee of BPM to back this Demo Track organizationally. Foremost, though, we thank the demo authors for their efforts to submit demo descriptions and videos to our submission process.

Heiko Ludwig and Hajo Reijers

BPM 2011 Demo Chairs

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## Demo Papers

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## Demo Abstracts

### Demo 7

**Terry Heath, Roman Vaculin and Richard Hull**

#### **Barcelona: A design & runtime environment for modeling and execution of artifact-centric business processes**

A promising approach to managing business operations is based on business artifacts, a.k.a. business entities (with lifecycles). These are key conceptual entities that are central to guiding the operations of a business, and whose content changes as they move through those operations. In the artifact-centric approach the main focus is on identifying and defining the key business artifacts (for example, a purchase order in an ordering system) and modeling the business process as interactions of these key business artifacts. Fundamentally, an artifact type includes both an information model that captures, in either materialized or virtual form, all of the business-relevant data about entities of that type, and a lifecycle model, that specifies the possible ways an entity of that type might progress through the business by responding to events and invoking services, including human activities. Intuitively, an artifact instance of a particular type is a complex data entity which is identified by a unique identifier, and which can evolve over time, i.e., some values of its attributes may be modified. The particular evolutions of the artifact instance over time are governed by the lifecycle of the artifact type.

The goal of this demonstration is to present the Barcelona SW environment for modeling and execution of artifact-centric business processes. Barcelona environment has three essential components: (1) the Barcelona server provides back-end functionalities needed for both design and execution of artifact-centric business processes; (2) the Barcelona design editor is a light-weight web browser application covering most aspects solution designers need when developing artifact-centric systems; (3) the Barcelona default runtime GUI is a web browser based tool intended for execution and testing of artifact centric applications. The Barcelona environment is fully model-driven and is therefore extremely useful for rapid development and prototyping. Specifically, the business operations model (BOM) of the actual artifact-centric system is created by the design editor component, and it is used directly for deployment and execution by the execution engine. Also, the runtime GUI is dynamically rendered completely based fully on the BOM of the particular artifact-centric application. In the demonstration we will introduce all major aspects of the Barcelona environment and we will illustrate them on modeling an example of a real-life project, the Fixed-price contracting business process.

### Demo 8

**Thomas Burkhart, Dirk Werth and Peter Loos**

#### **Collaborative Process Assistant - An introduction**

The Collaborative Process Assistant (CoPA) represents a flexible process support system tailored for Small and Medium-sized Enterprises (SMEs). Utilizing the large impact of e-mail communication for today's businesses, CoPA turns the existing e-mail-system into a structured process management framework. Each incoming e-mail is autonomously matched to the corresponding business process and enhanced by proactive annotations. These context-sensitive annotations include recommendations for the most suitable following process steps. An underlying, self-adjusting recommendation model ensures most appropriate recommendations by observing the actual user behavior.

## Demo 9

**Antonio Bucchiarone, Stefan Foll, Klaus Herrmann, Marco Pistore and Heorhi Raik**

### **Adaptable Pervasive Flows: Towards a More Intelligent Environment**

Adaptable Pervasive Flows (short: flows) are a novel workflow-based paradigm for the design of pervasive applications, where dynamic workflows situated in the real world are able to modify their execution in order to adapt to changes in their environment. In this paper, we present the ALLOW software framework we have developed to manage the adaptation and distribution of pervasive flows. We have applied the framework to a case study from the domain of logistics to demonstrate the benefits and feasibility of our approach to handle highly complex and dynamic real-world processes.

## Demo10

**Christian Janiesch, Martin Matzner and Oliver Müller**

### **Slipstream: A BAM Proof of Concept using Standard Software**

Many BPM system are lacking sophisticated capabilities to monitor and analyze log data. Business Activity Monitoring (BAM) or Process Mining tools instead are limited to pure monitoring and notification functions and are not able to actually take action on a business process. It would require hardwiring systems of these two kinds to each other to achieve end-to-end insight to action. However, this would make it e.g. difficult to extend the architecture to a network of interacting BPM systems.

Against this background, we propose to apply the concept of Complex Event Processing (CEP) to BPM systems to allow for monitoring and active control of business processes. CEP, in general, comprises a set of techniques for making sense of the behavior of a monitored system by deriving higher-level knowledge from lower-level system events in a timely and online fashion.

We present a proof of concept in which BPM and CEP systems are integrated in a closed monitoring and control loop through the exchange of (complex) events. Besides realizing this monitoring and control loop, the event-driven architecture offers a number of further advantages: real-time processing, loose coupling, and scalability.

The demo features a perfect order process which as the following tasks:

- Check for order patterns
- Check customer credit worthiness
- Check product availability
- Advise goods picking
- Advise goods packing
- Initiate shipment (standard / express)

Checks may suspend a process until a manual approval has been given. Reasons can include double orders, availability checks, etc. The shipment variant is based on average execution times of the preceding instances to stay within fictional SLA. All task runtimes and overall execution times are propagated to real-time dashboards.

## Demo 11

**Philippe Baumann**

### **Ontomantics overview**

Ontomantics is an innovative software publisher established in Orléans France. Ontomantics product as a platform as a service enables users to automate complex business processes in a seamless way without code.

The demo shows an overview of the platform highlighting technical differentiators and integrated features aimed to business process mapping, advanced interfaces, rule based business logic, repository architecture focusing on ease of use.

## **Demo 12**

**Ingo Weber, Hye-Young Paik and Boualem Benatallah**

### **End-User Focused Service Composition with FormSys Process Designer**

Using traditional methods, it is often not cost effective to automate business processes which affect a small number of people and/or change frequently. In this demonstration, we present an end-user focused service composition environment to allow users with little technical knowledge to encode idiosyncratic, repetitive business processes themselves. The novel tool enables end-users to model and deploy such processes as Web service compositions, from design to execution. The approach is based on end-user friendly service naming, a graphical paradigm for scripting, a targeted restriction of control flow expressivity, and data flow verification and optimization. A Web-based, end-user focused service composition prototype has been developed, including a transformation of process models to WSBPEL for execution; a demonstration video is available. Using the prototype, a proof-of-concept evaluation is conducted with use case processes from the financial data analysis domain.