Artifact-Centric Workflow & BPM
- A Guided Exposition -

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Introduction

(Rick &) Jianwen
Think Outside of the “DB” Box

This economy challenges us to truly think outside the box.

John Klossner
What Are the Issues?

- Workflow management:
  - Managing executions & allowing measurements
  - requirements changes, add/delete workflows, optimization, …
What Are the Issues?

- BP management:
  - Design, deployment, management of workflows
  - Resource (including human) management
  - Enterprise organizations, roles, ...

Process Modeling

Data Modeling

Business Logic

System in Operation

Workflow System
(flow mgmt, services, databases, resources, …)
The Problems Are Challenging

- Importance:
  - Businesses are struggling
  - BPM is a big and growing industry

- Right timing
  - DB boxes, Web, services, SOA, SAAS, ...
  - Data management/integration, XML, sw verifications, web services, ...

- Technical problems of workflow/BPM still need to be formulated and studied, many are hard
Think Outside of the “DB” Box

This economy challenges us to truly think outside the box.

Especially since there isn’t a box anymore.

John Klossner
What's Wrong?

- Ad hoc implementation is an art: unreasonable, may lose much business “sense”
  - Even worse: contracted out, no valuable machine readable documentation of design decisions
DB Box In the Old Days (60’s)

- Current BPM: reminiscent of the DB field in the 60’s
  - Driving applications: inventory control, financial data management

The key was to automate the ‘s

**Diagram**

- **Query**
- **Logical data modeling**
- **COBOL program**
- **File structures** (indexes, …)
- **Desirable**
- **Have to deal with**
Physical data independence allows us to focus only data management issues.

- **SQL**
- **Logical data model**
- **Physical organization** (files, pages, indexes, ...)

- **Conceptual**
- **Physical**
Future of BPM/Workflow?

- Automate ‘s changes

What to change?
- Reuse concepts, tools, techniques developed in CS
- First step: a single conceptual model for business processes
  - both data and processes are 1st class citizens
Plan for Today . . .

- Rick Hull: Introduction to Artifact-centric Approach
- Terry Heath: Demo of the Siena prototype system
- Rick: ArtiFact™ 0.1
- Alin Deutsch: Analysis for Declarative Artifact-Centric Workflows
- Jianwen: Analysis for An Alternative Model
- Diego Calvanese: Expressive Power of Artifact BPs
- Discussions 1
  - Modeling Artifact BPs (Jianwen)
  - (Process/workflow) integrity constraints (Alin)
- Evening (not part of the formal program)
  Terry: Tutorial on Siena for building workflow schemas
... and Tomorrow Morning

- Marlon Dumas: Flexible Artifact-Centric Process Models
- Jianwen: Artifact workflow synthesis
- Discussion 2
  - Ontologies and Artifact-Centric workflow (Diego Calvanese & Giuseppe De Giacomo)
  - Interoperation and Artifact-Centric (Rick)
  - Business Process Management Systems (Jianwen)