

Schwerpunkt **Agile Prozesse**

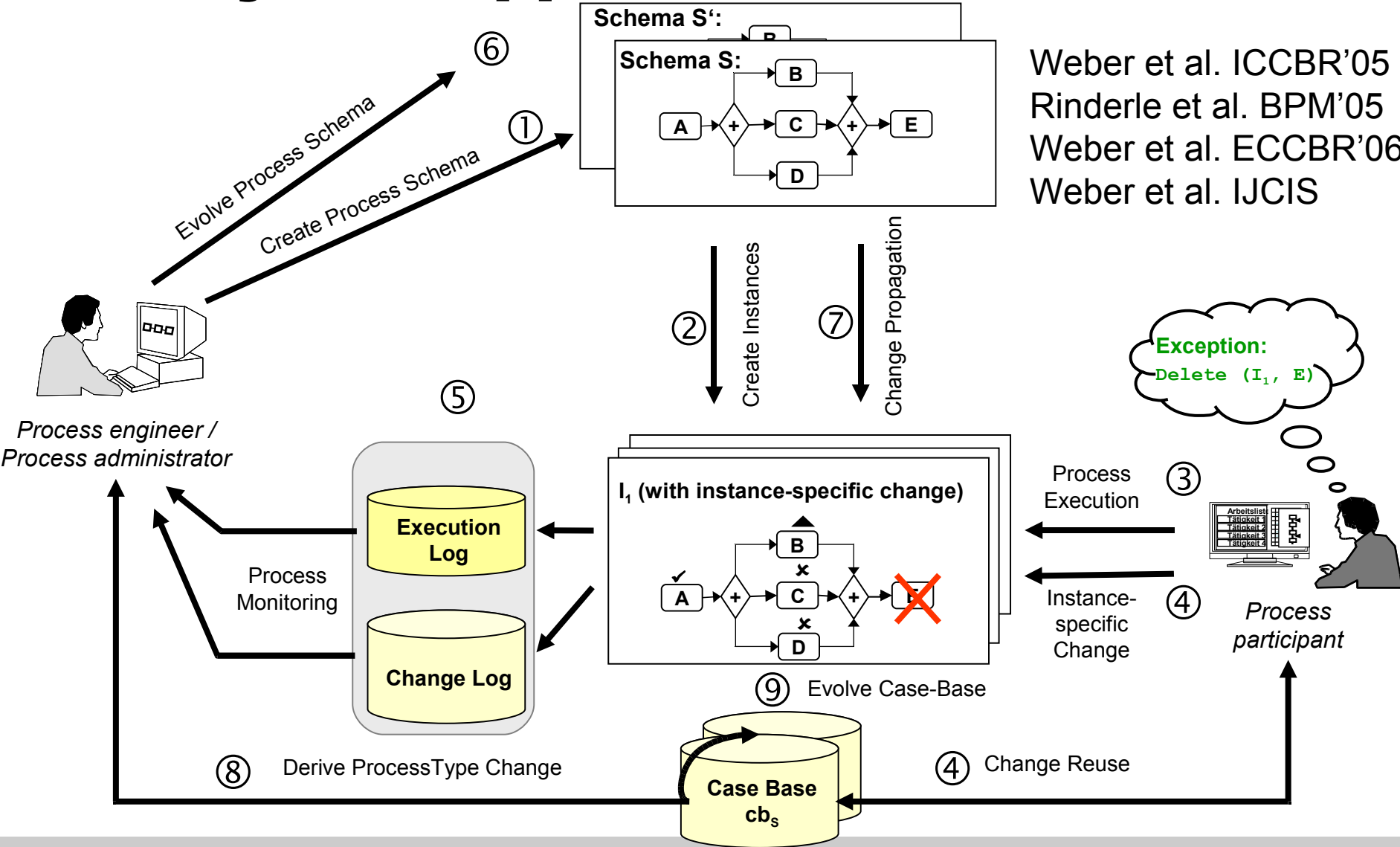
Dr. Barbara Weber

Our Vision for Agile PAIS

- Fast Delivery of Process-Aware Information Systems (PAIS)
- Emergence of Process-Aware Information Systems
- Responsiveness to Change
- Feedback and Learning from Real Process Executions
- Integrated Process Life Cycle Support

ProCycle: Integrated Process Lifecycle Support

Weber et al. ICCBR'05
 Rinderle et al. BPM'05
 Weber et al. ECCBR'06
 Weber et al. IJCIS



Change Patterns + Features

- Goal: Reduce Cost of Process Change
- **Change Patterns**
 - describe typical changes at a high level of abstraction
- **Change Support Features**
 - describe crucial features making changes applicable in practice

Weber et al. CAiSE'07

Weber et al. DKE

Change Patterns + Features

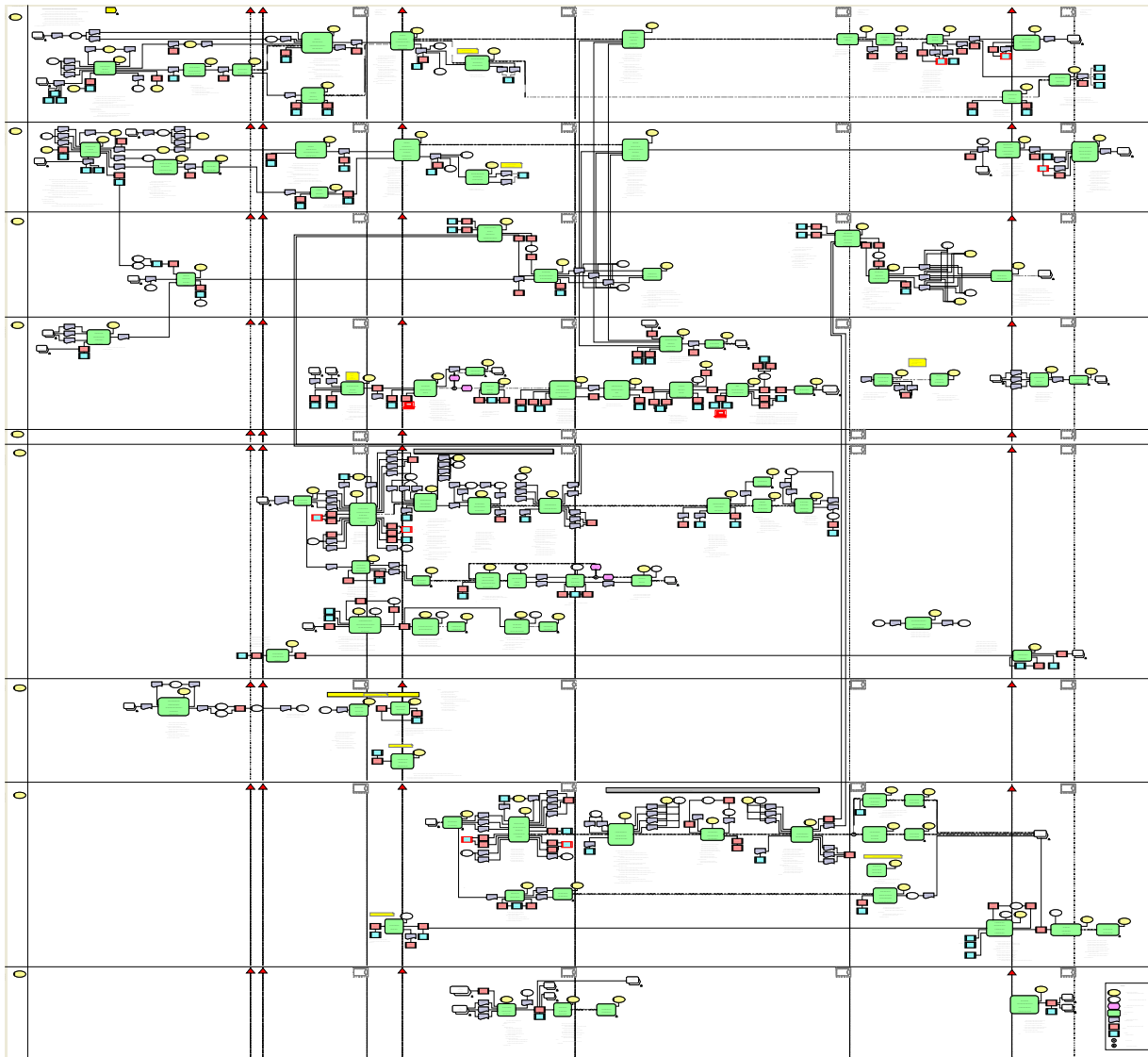
- 2 Major Categories
 - Adaptation Patterns
 - Support for quick adaptations
 - Patterns for Changes in Predefined Regions
 - Support for deferring decisions

Refactoring of Process Models

- Goal: Improve understandability and maintainability of process models
- Catalogue of 11 refactorings
- Proof-of-Concept Implementation

Weber and Reichert, CAiSE'08

Refactoring of Process Models



Constraint-based Workflows

- SecServ
 - Modeling and Execution Environment for Constraint-Based and Imperative Workflows
 - Applications:
 - Access control for adaptive PAIS
 - Visualization of system-spanning processes
- User Guidance through Recommendations

SecServ

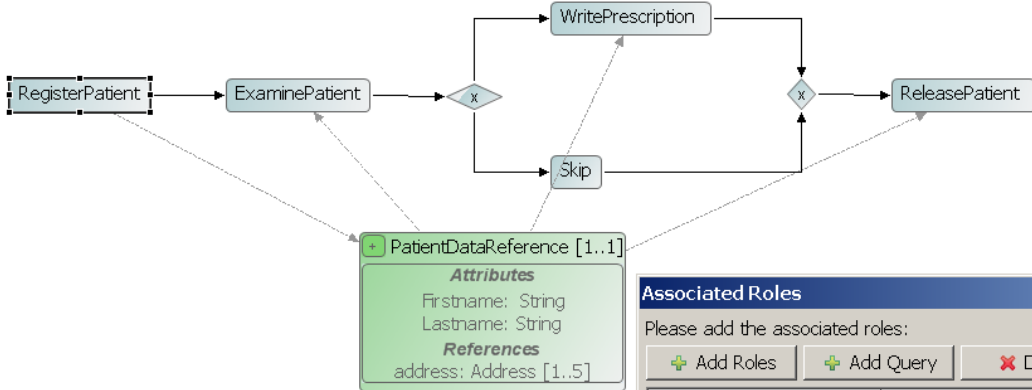
Privilege User Role Editor

File Edit View Zoom

test hospital

Process Editor - Examine Patient

create Schema open Schema delete Schema



PatientDataReference [1..1]

Attributes
Firstname: String
Lastname: String

References
address: Address [1..5]

Associated Roles

Please add the associated roles:

+ Add Roles + Add Query - Delete

Role	Query
Nurse	
City Query	(self.RegisterPatient.Output.Address.City = 'Innsbruck')

Properties

Property	Value
Associated Roles	[Nurse]

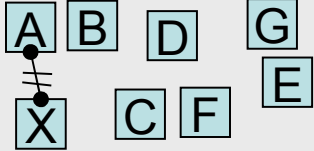
PMS Editor Objects Business Objects Constraint Editor Process Viewer Change

User Guidance through Recommendations

PAIS

Process Designer

① Declarative Model



Process Execution Environment

② Process Instance

B

Worklist A ⑥

<B ... >
<A ... >
<C ... >
<D ... >

③
Incomplete Execution + Allowed Activities + ...

A, B, C, D, E, F, G, X



⑤ Recommendations incl. Explanation

<B, 800, 1900 >

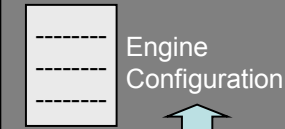
<A, 1600, 1600 >

...

ProM

④

Recommendation Engine



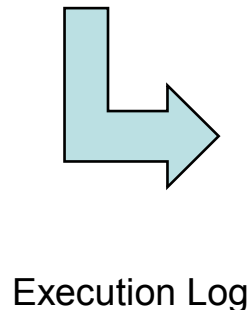
Contributors

Prefix Set Multi Set

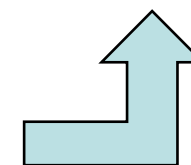
Targets

Minimum Cycle Time

Business Value

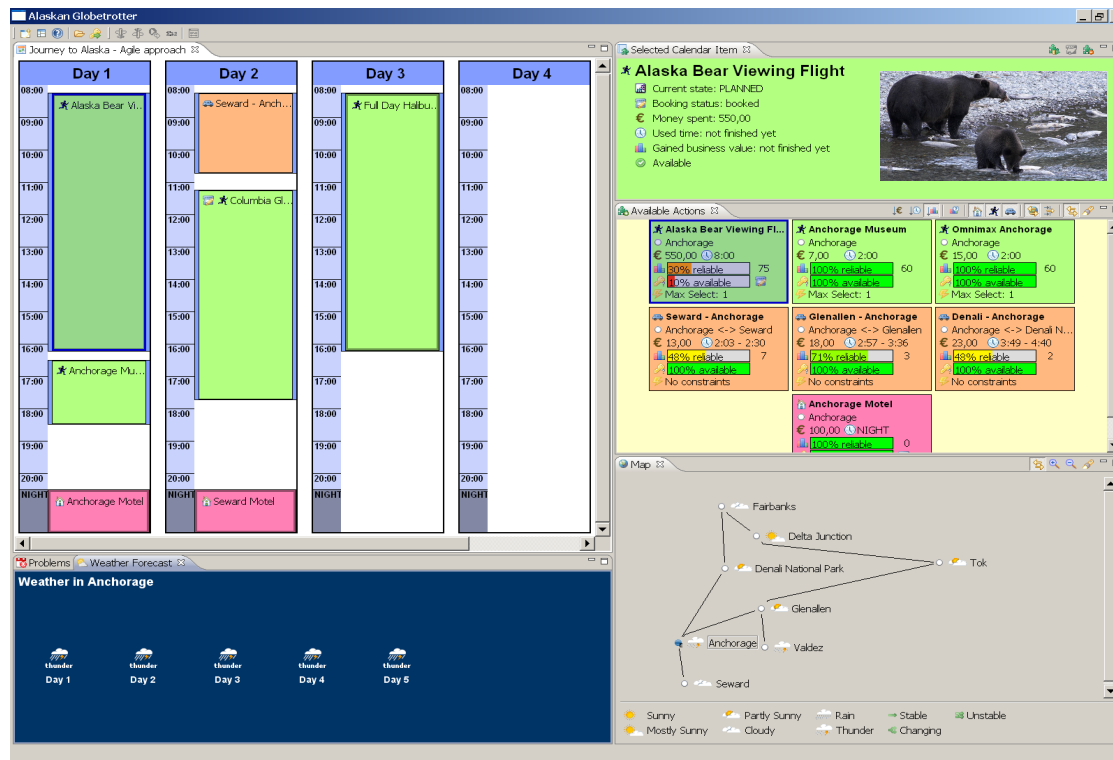


Trace	Cycle Time
A, B, C, D, E	1600
A, B, C, D, E	2400
A, B, C, D, E	800
B, D, E, F, G	800
X, B, C, D, E	2400



Alaska

- Simulator for analyzing planning behavior



Visit alaskasimulator.org

Vielen Dank für die Aufmerksamkeit!