

Agile Prozesse an der Universität Innsbruck

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Our Vision for Agile PAIS



- Fast Delivery of Process-Aware Information Systems
- Emergence of Process-Aware Information Systems
- Responsiveness to Change
- Feedback and Learning from Real Process Executions

ProCycle: Integrated Process Lifecycle Support





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

Change Patterns + Features



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

Adaptation Patterns



Adding / Deleting Fragments

AP1: Insert Process FragmentAP2: Delete Process Fragment

Moving / Replacing Fragments

AP3: Replace Process FragmentAP4: Move Process FragmentAP5: Swap Process FragmentAP14: Copy Process Fragment

Adding / Removing Levels

AP6: Extract Sub Process **AP7**: Inline Sub Process

Adapting Control Dependencies

AP8: Embed Process Fragment in Loop
AP9: Parallelize Activities
AP10: Embed Process Fragment in Conditional Branch
AP11: Add Control Dependency
AP12: Remove Control Dependency

Changing Transition Conditions

AP13: Update Condition

Late Modeling Pattern

• Build-Time



Set of Activities
P Q R
S T U
XY
+
Set of Constraints

+

• Run-Time









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

Weber and Reichert, CAiSE'08

a) Model Repository before Refactoring



b) Model Repository after Refactoring the Model Collection from a)



Constraint-Based Workflows



- SecServ
 - Modeling and Execution Environment for Constraint-Based workflows
- Recommendations
 - Intelligent User Support in Flexible PAIS

Constraint-Based Processes







Vielen Dank für die Aufmerksamkeit!