High-level Differencing, Patching and Merging of EMF Models

Eclipse DemoCamp (18.11.2013)

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Praktische Informatik

About us

Software Engineering Group, University of Siegen

Main research area: Model driven software development

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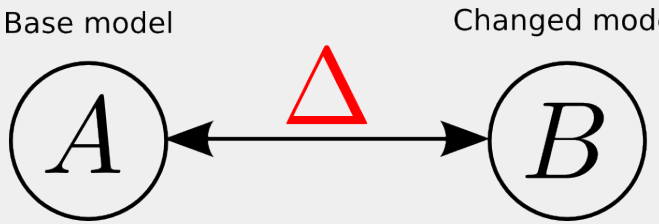
Agenda

Section 1

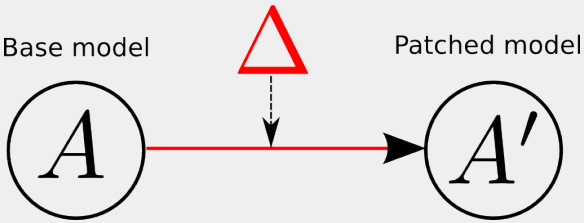
Introduction

Use Cases of SiLift

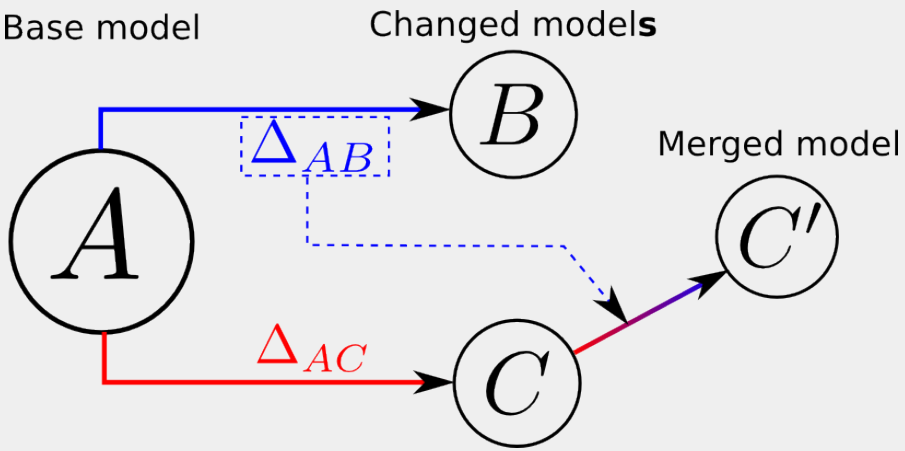
Differencing



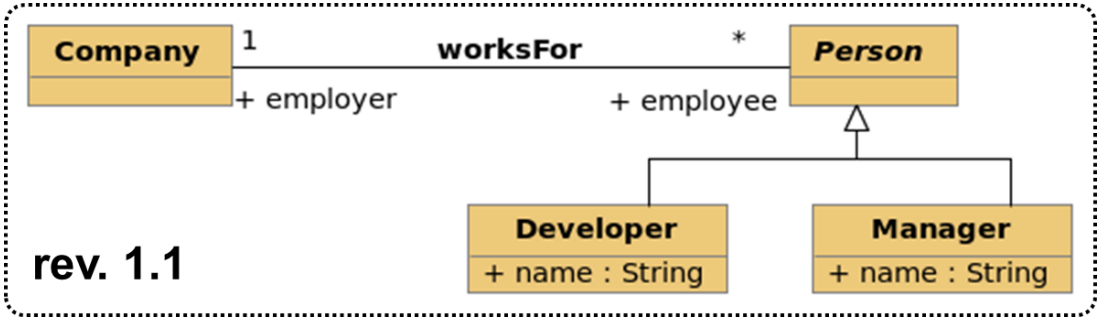
Patching



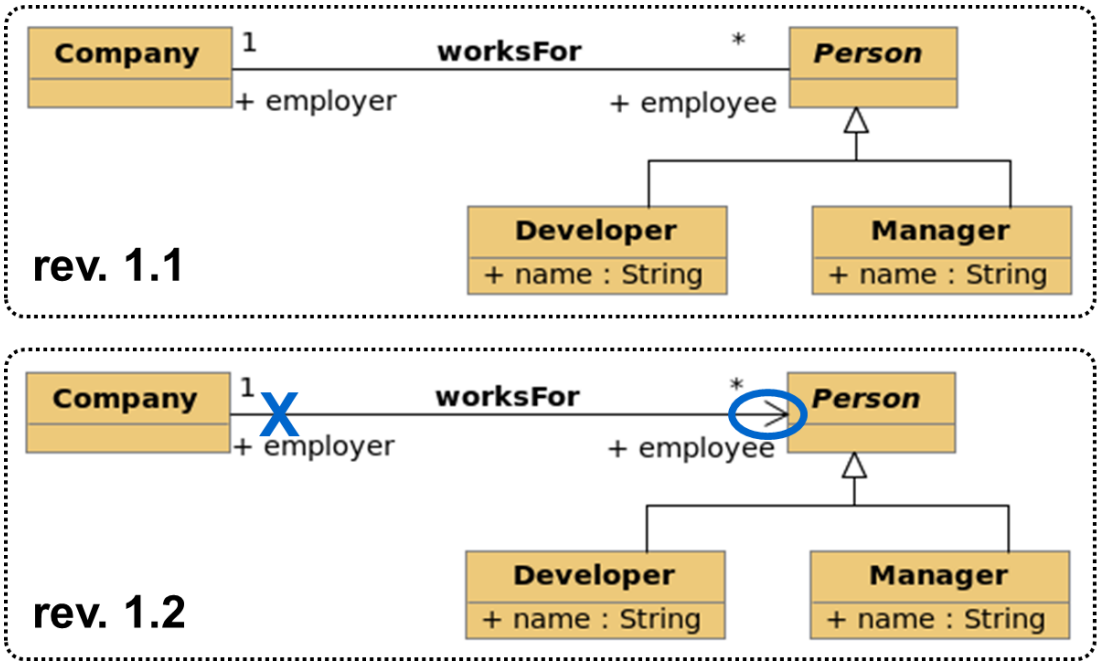
Merging



Model Evolution

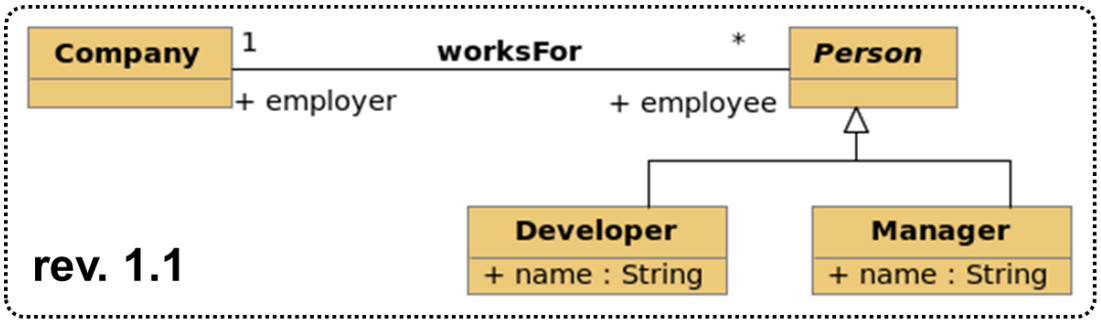


Model Evolution

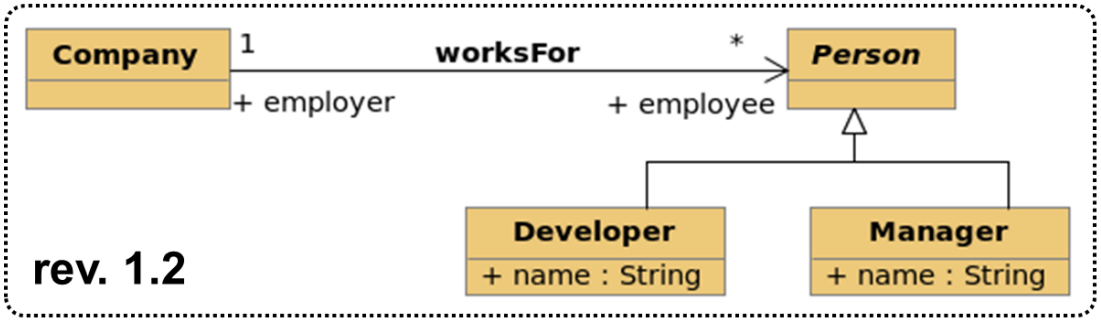


Design Decision:
Restrict association navigability

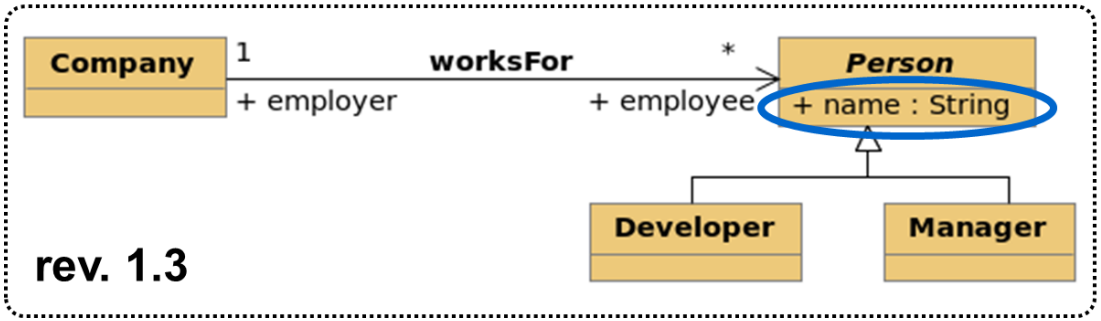
Model Evolution



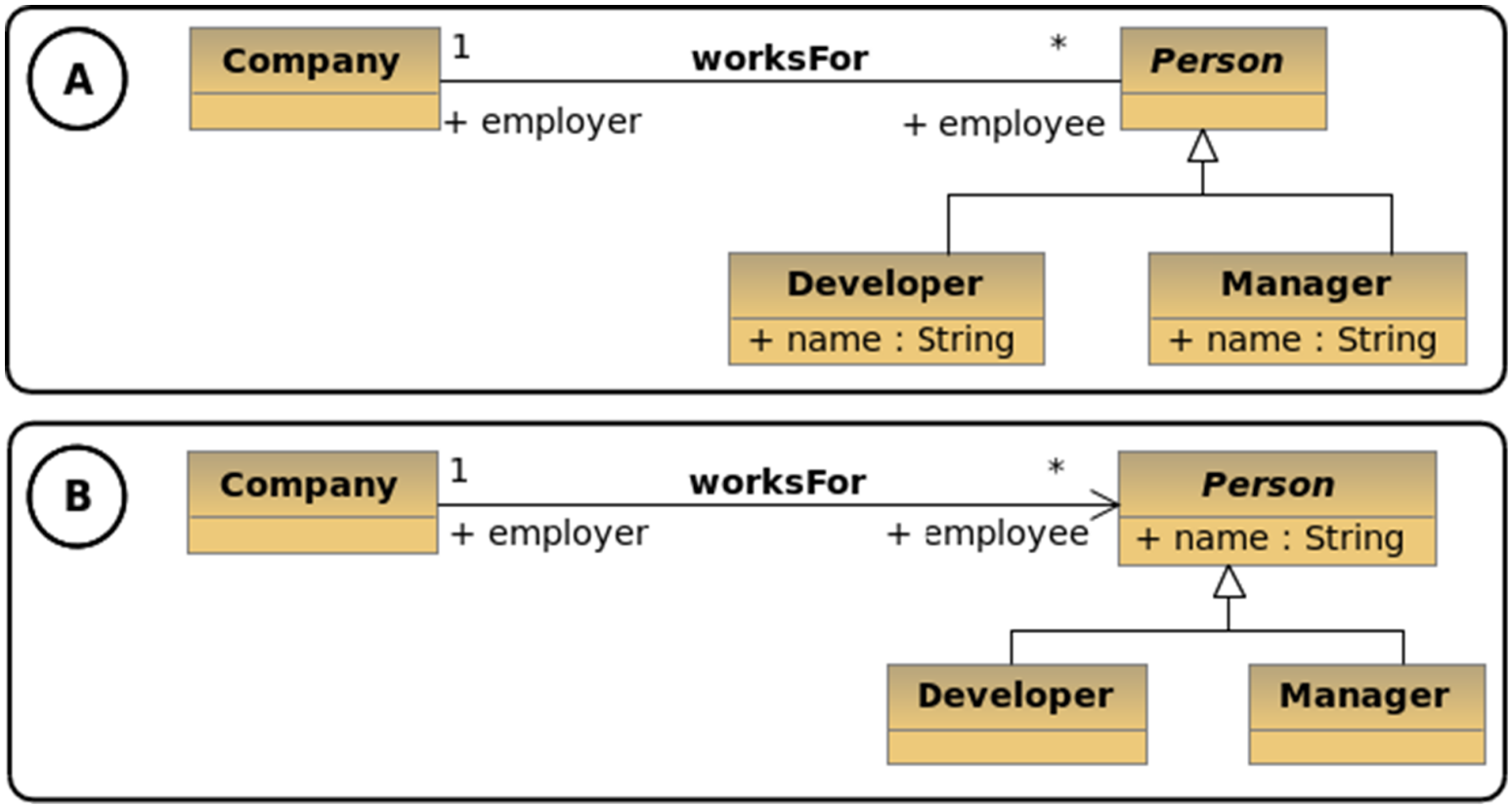
Design Decision:
Restrict association navigability



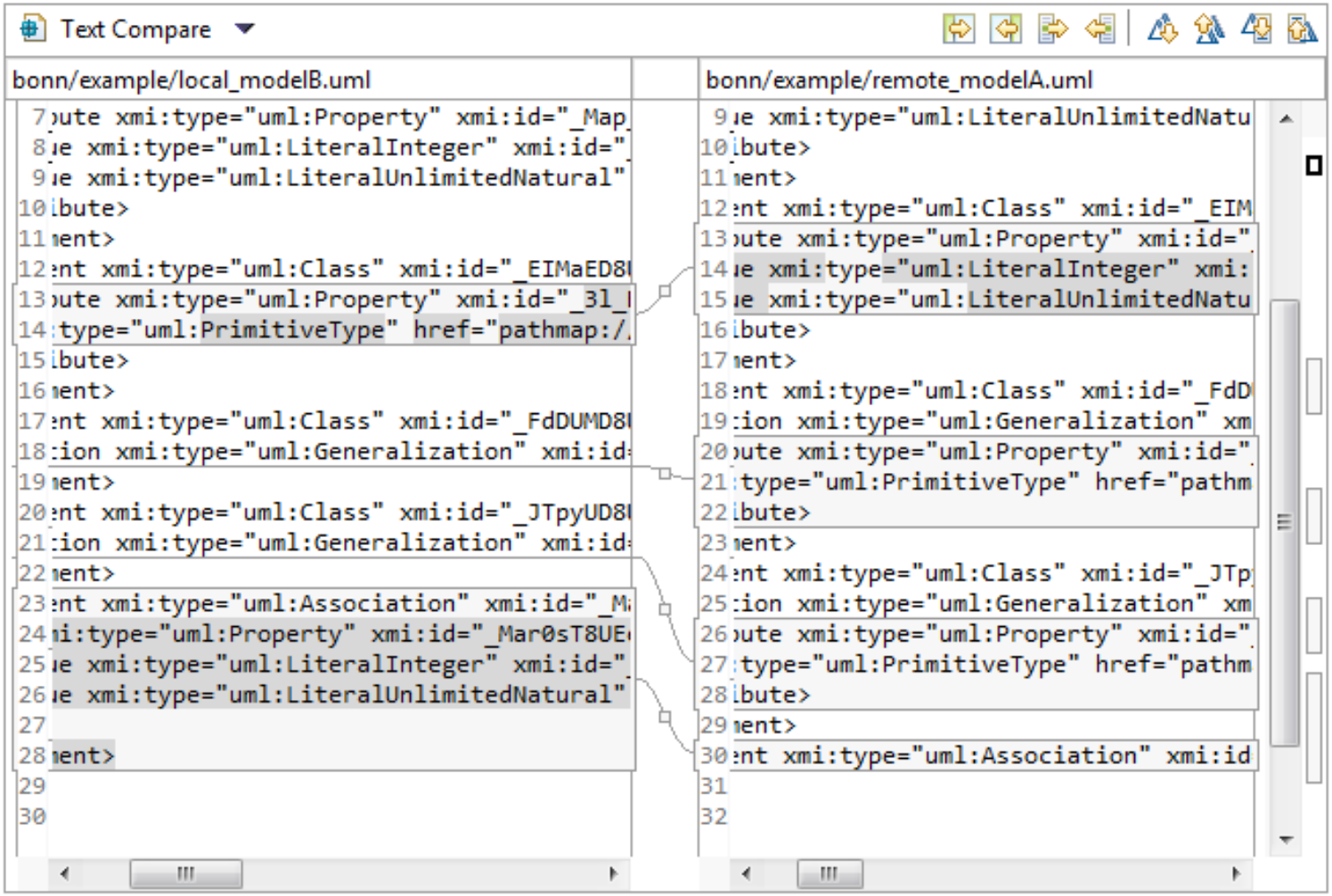
Refactoring:
Pull up attribute



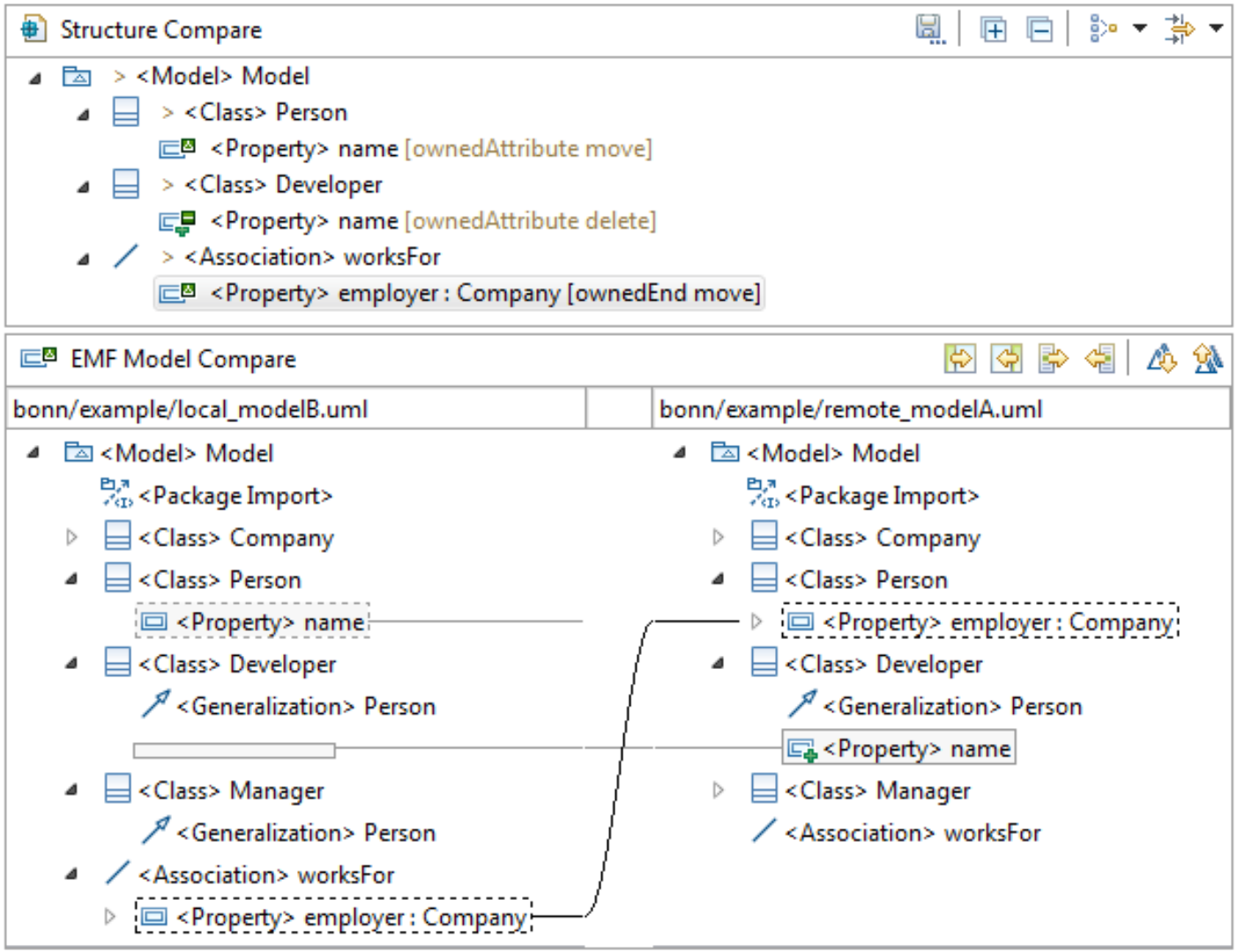
Model Evolution



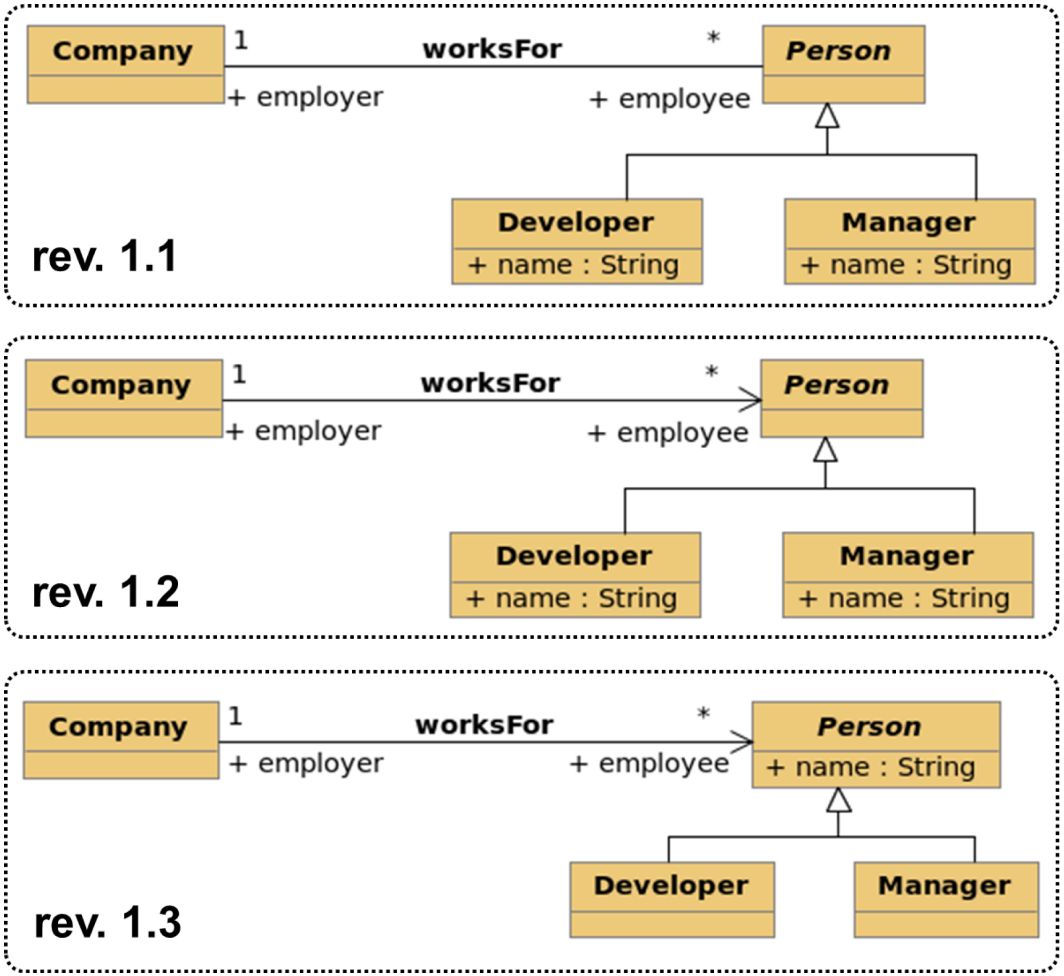
What textual difference tools report. . .



What EMFCompare reports. . .



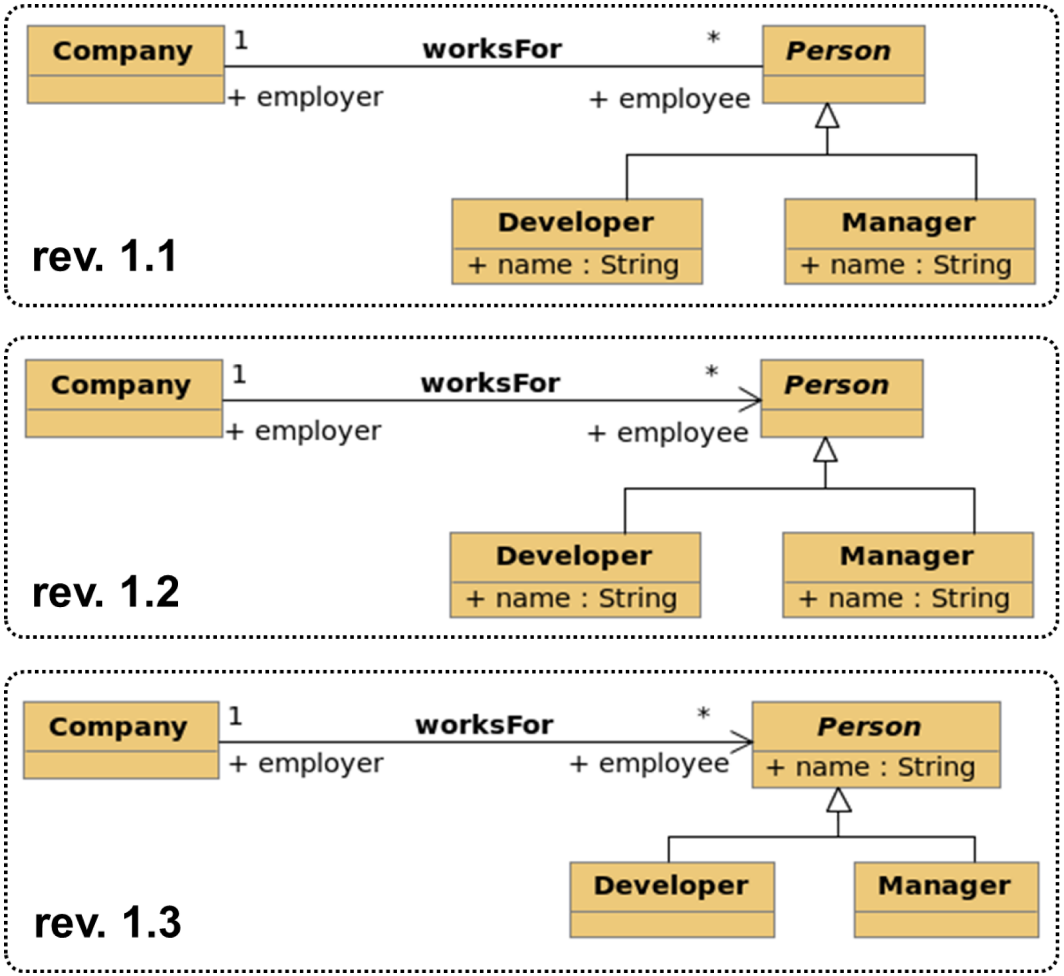
Model Evolution



Design Decision:
Restrict association navigability

Refactoring:
Pull up attribute

Model Evolution



Design Decision:
Restrict association navigability

Edit Operation

Refactoring:
Pull up attribute

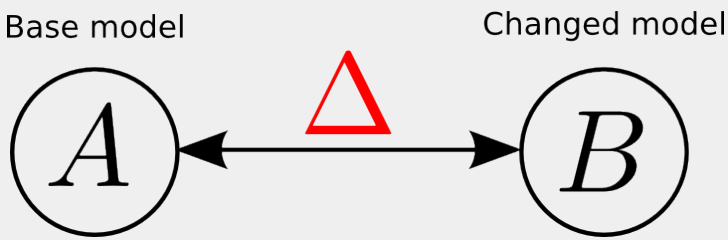
Edit Operation

Section 2

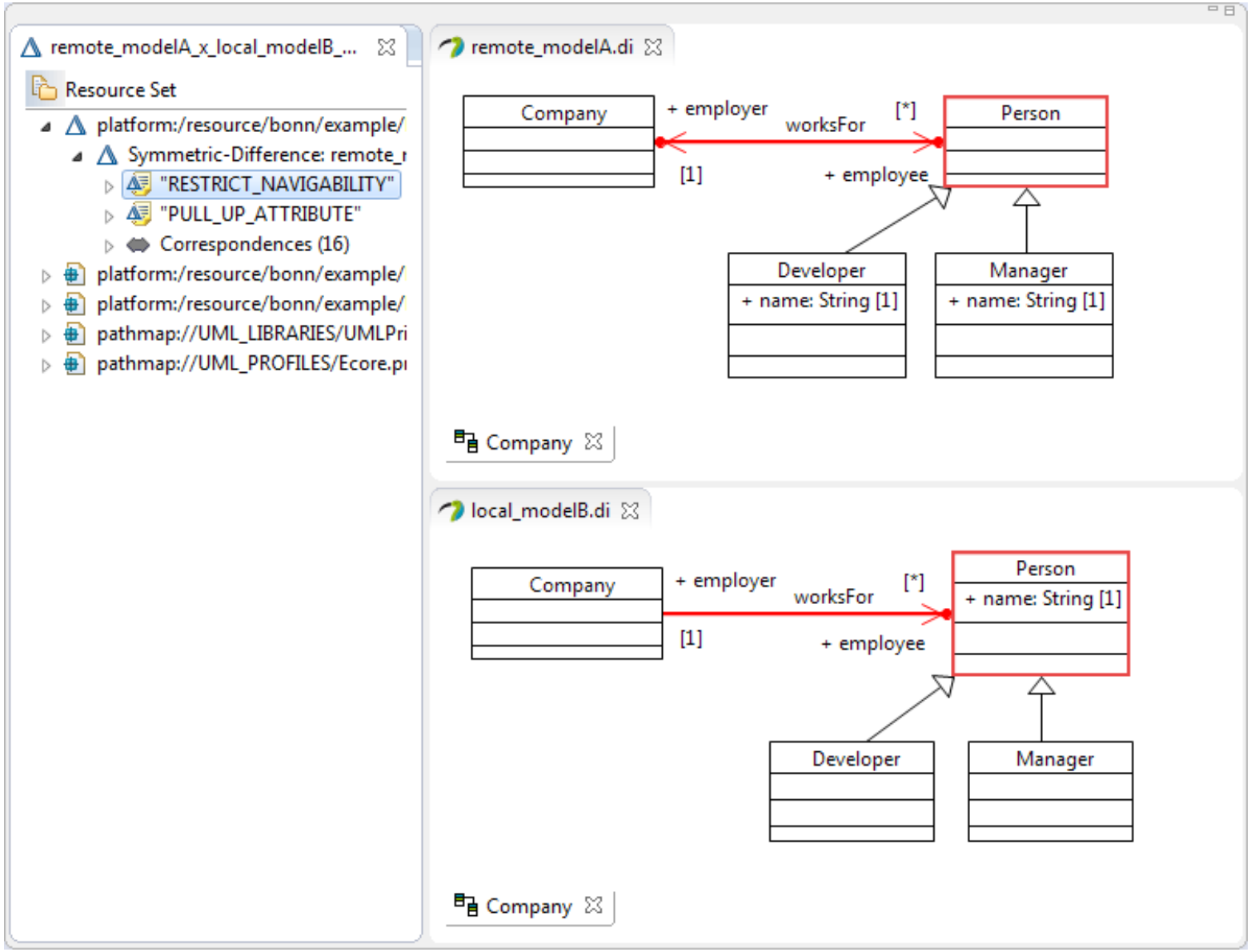
SiLift Tools

Use Case (1)

Differencing

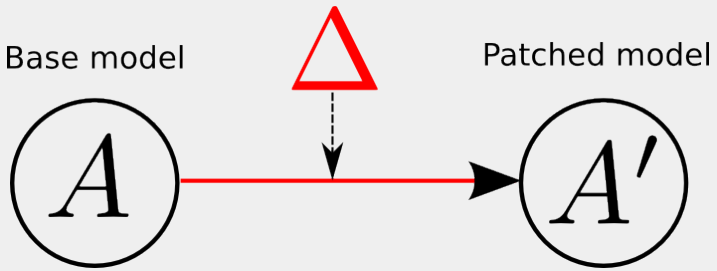


Difference Viewer

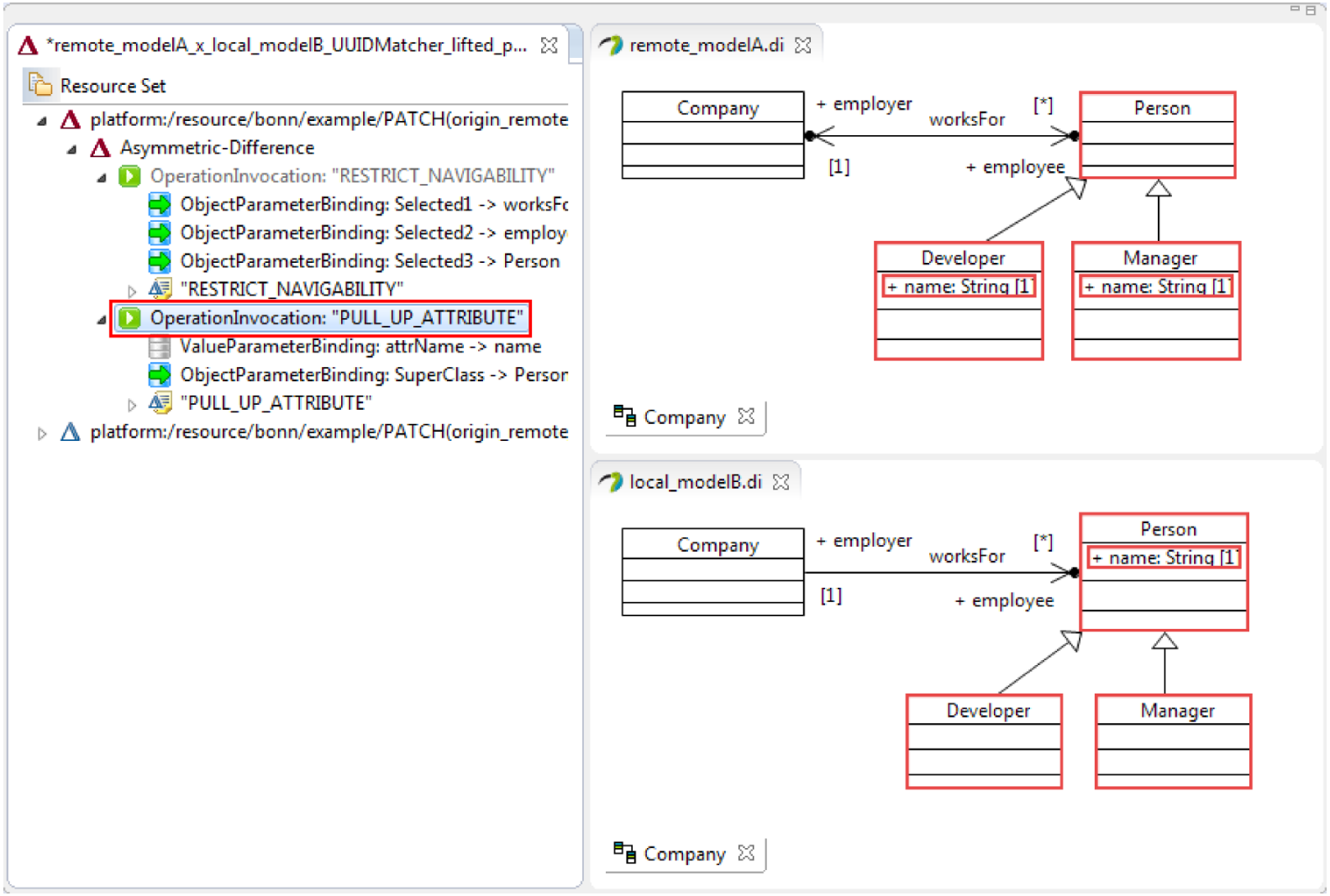


Use Case (2)

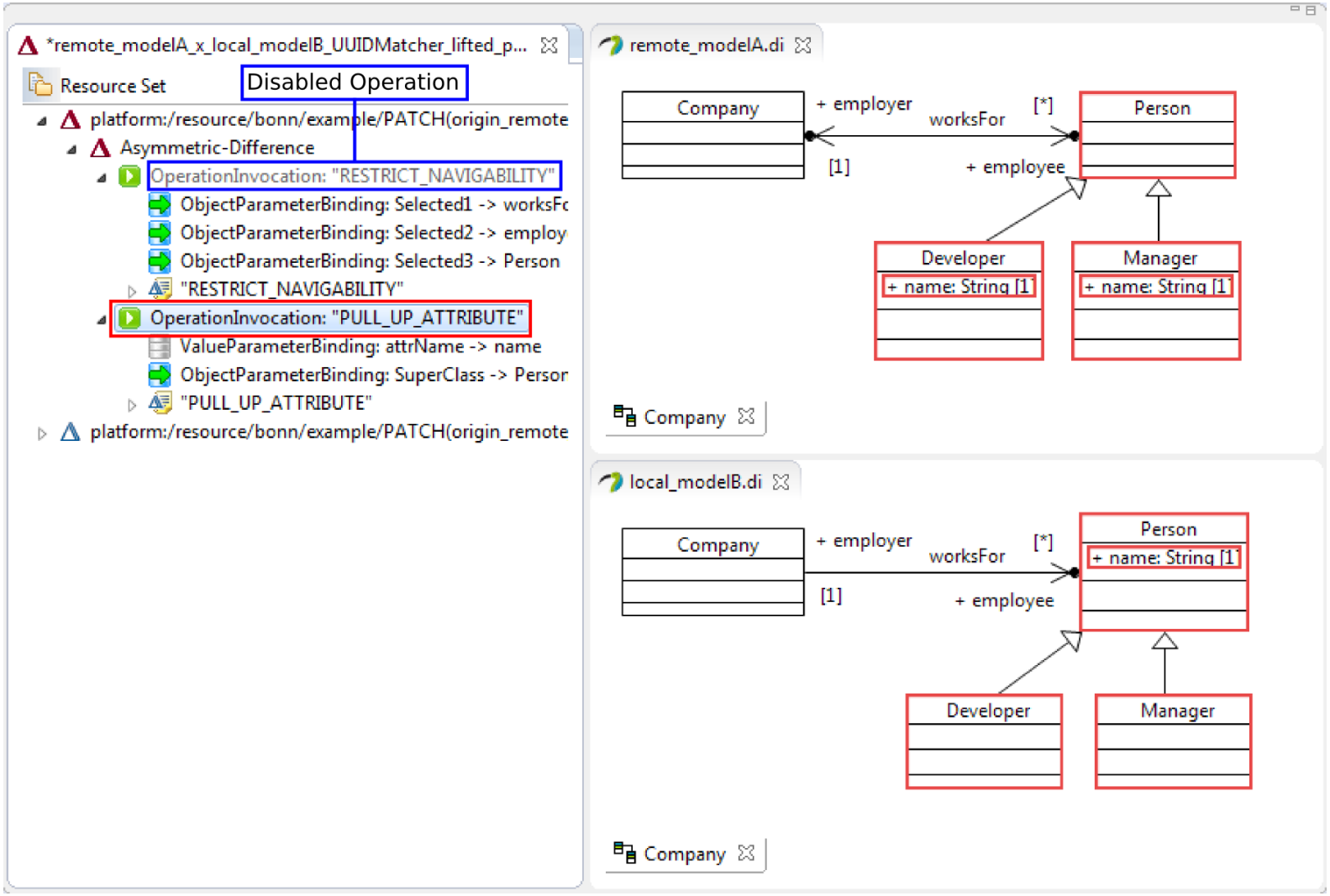
Patching



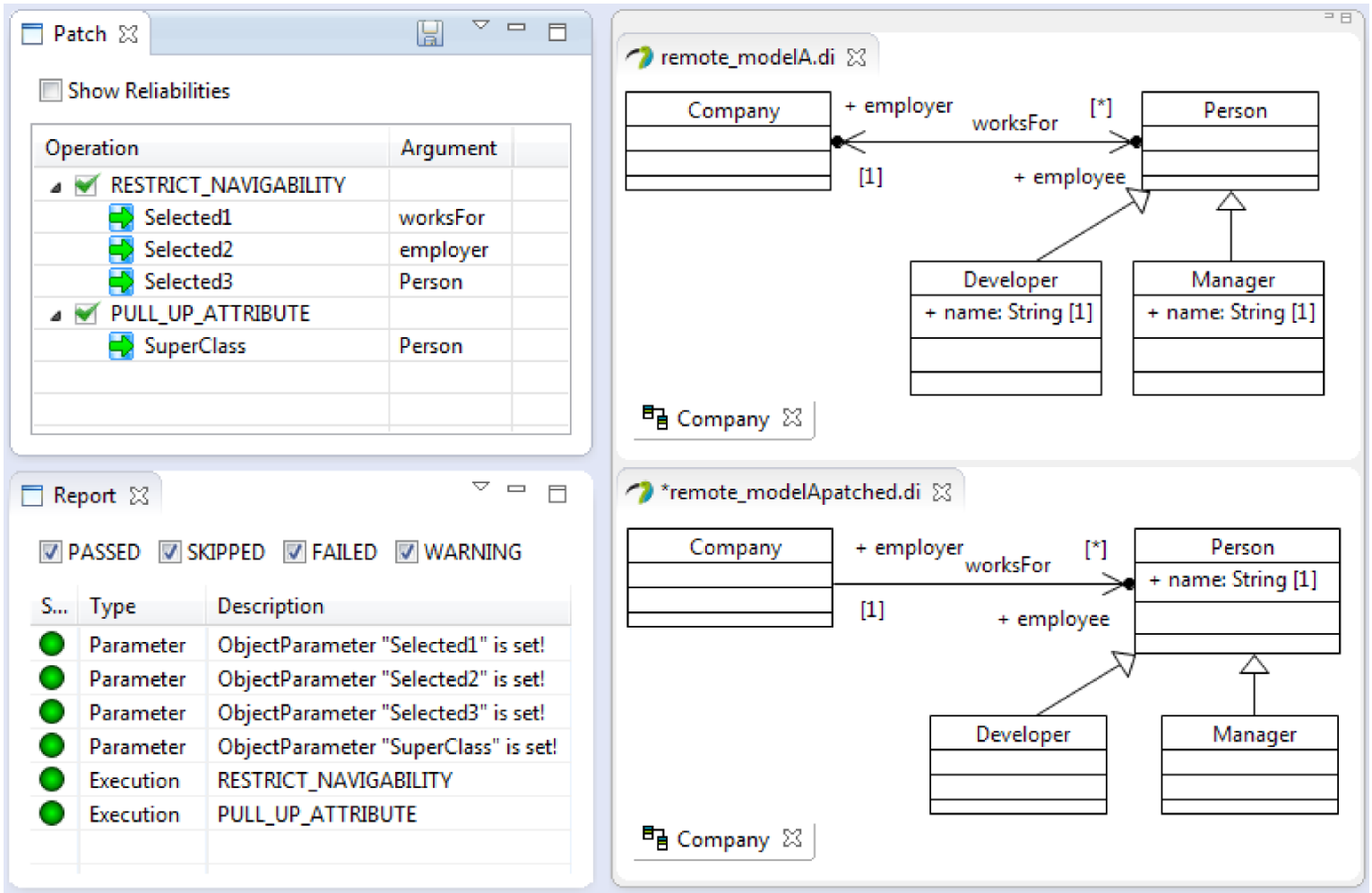
Consistency-Preserving Editing of Patches (1)



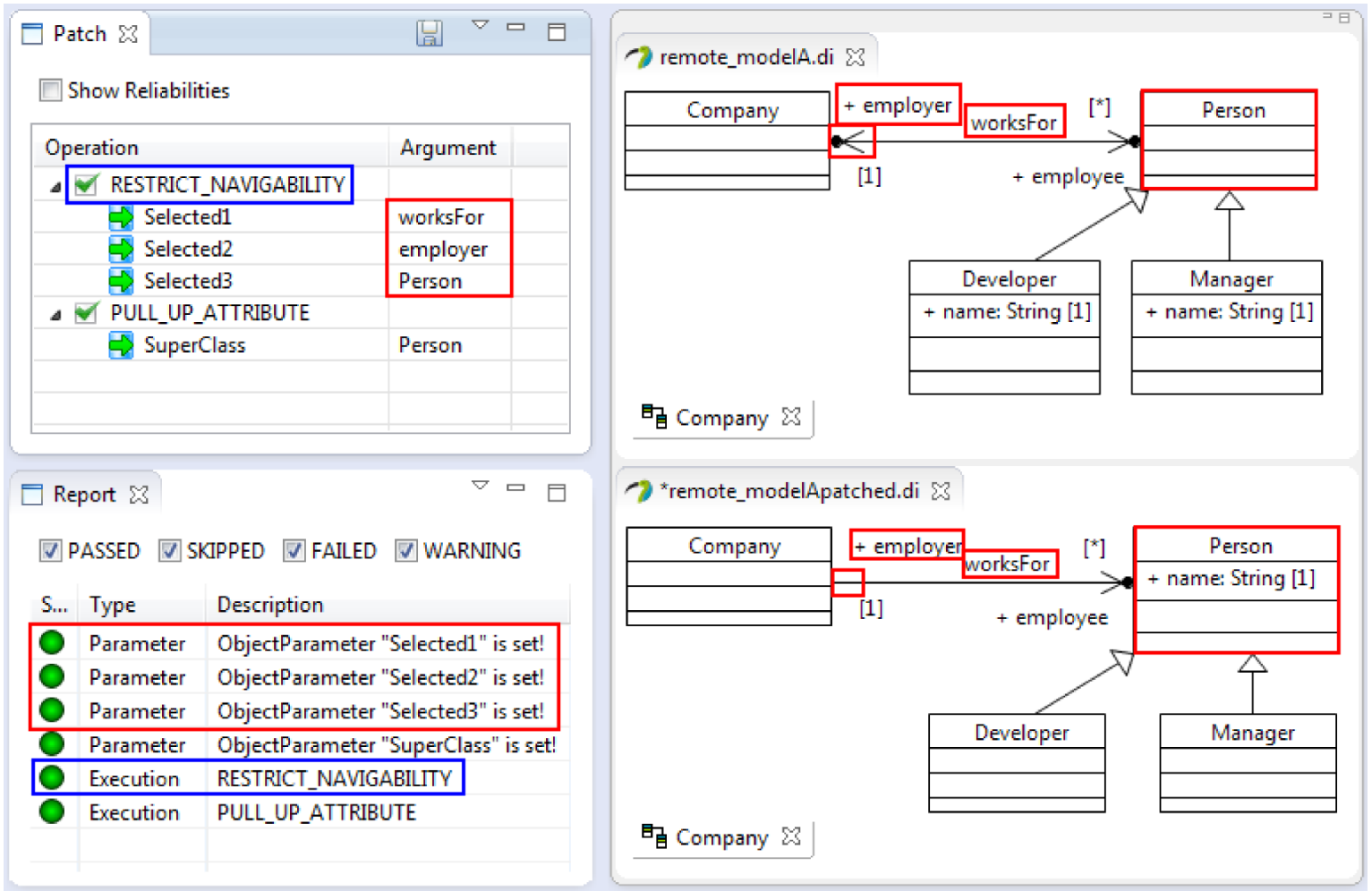
Consistency-Preserving Editing of Patches (2)



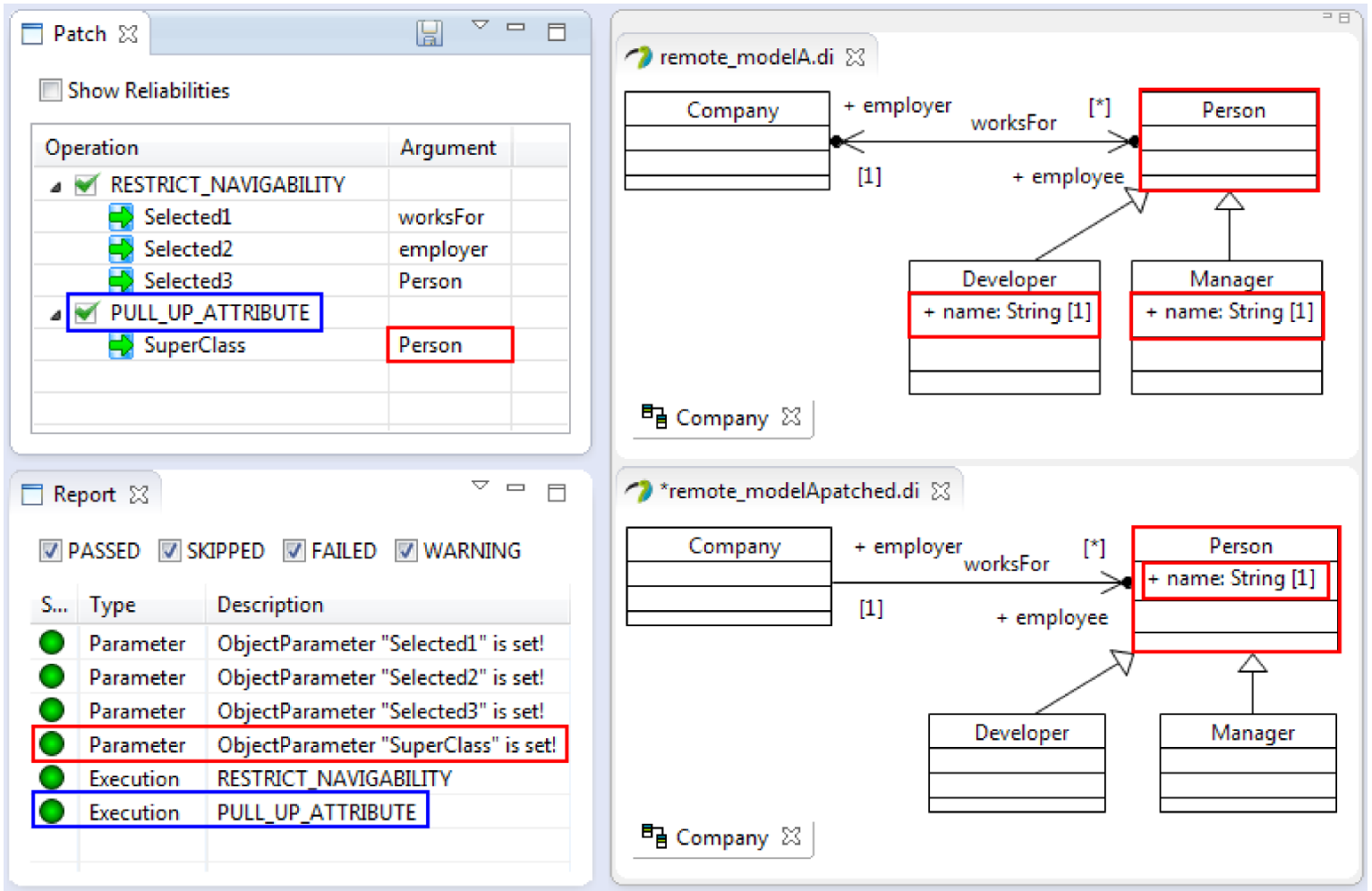
Controlled Application of Model Patches (1)



Controlled Application of Model Patches (2)

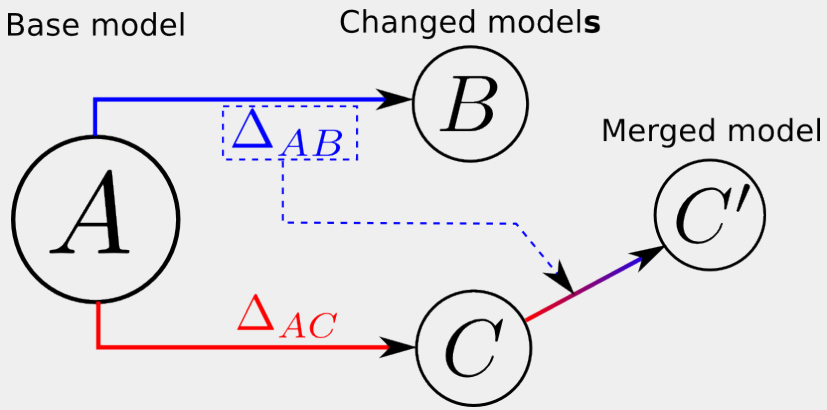


Controlled Application of Model Patches (3)

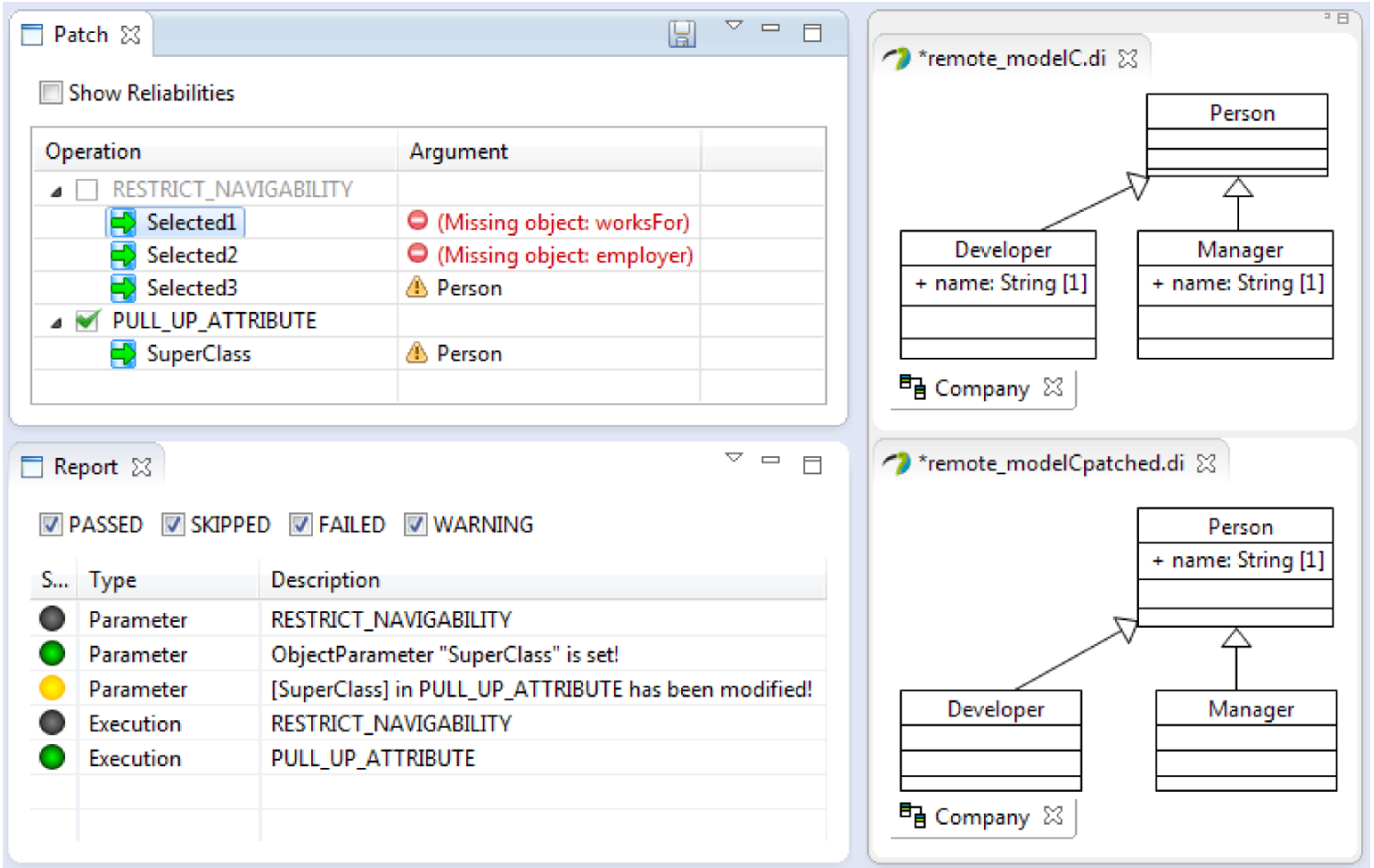


Use Case (3)

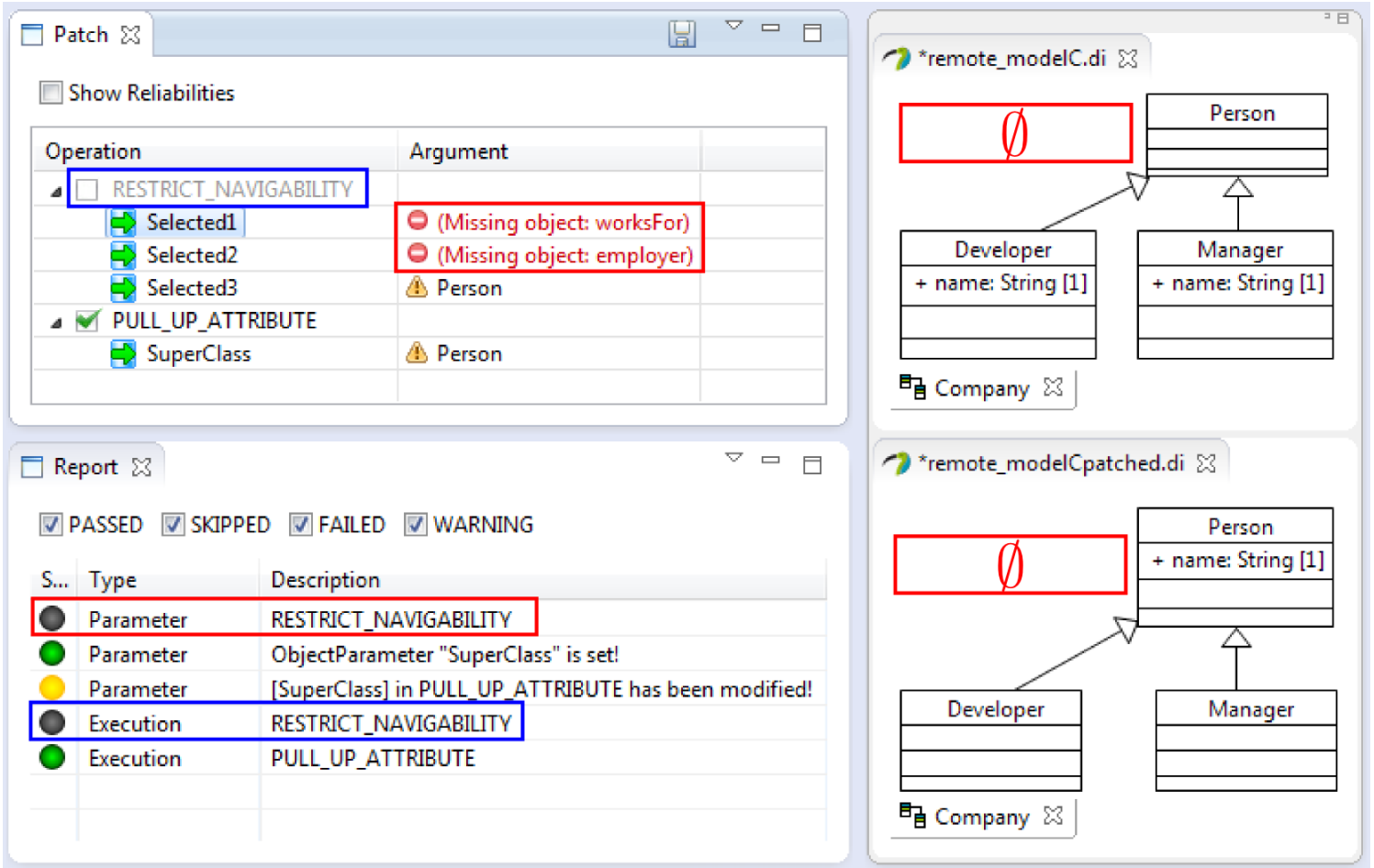
Merging



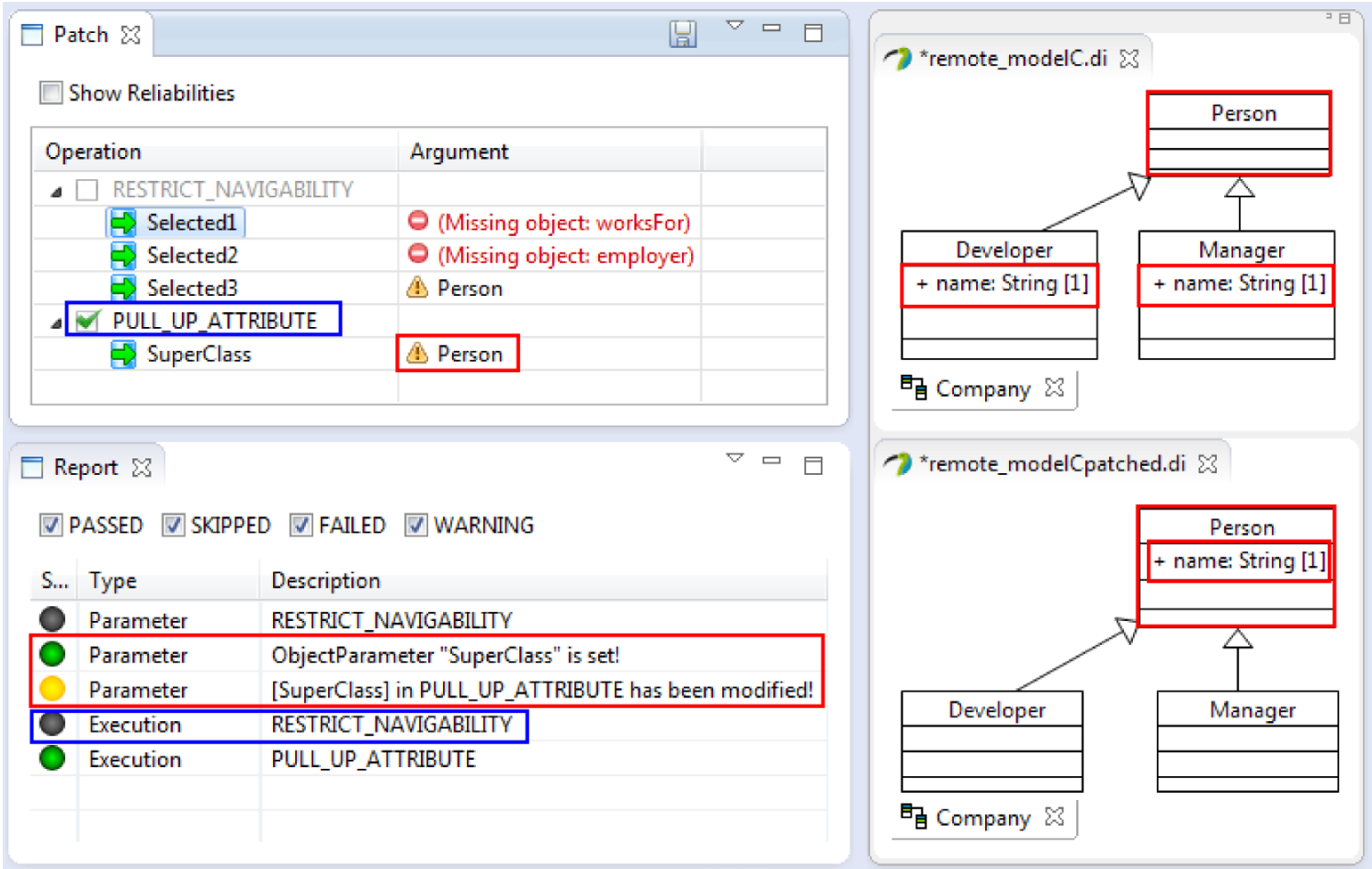
Controlled Merging (1)



Controlled Merging (2)



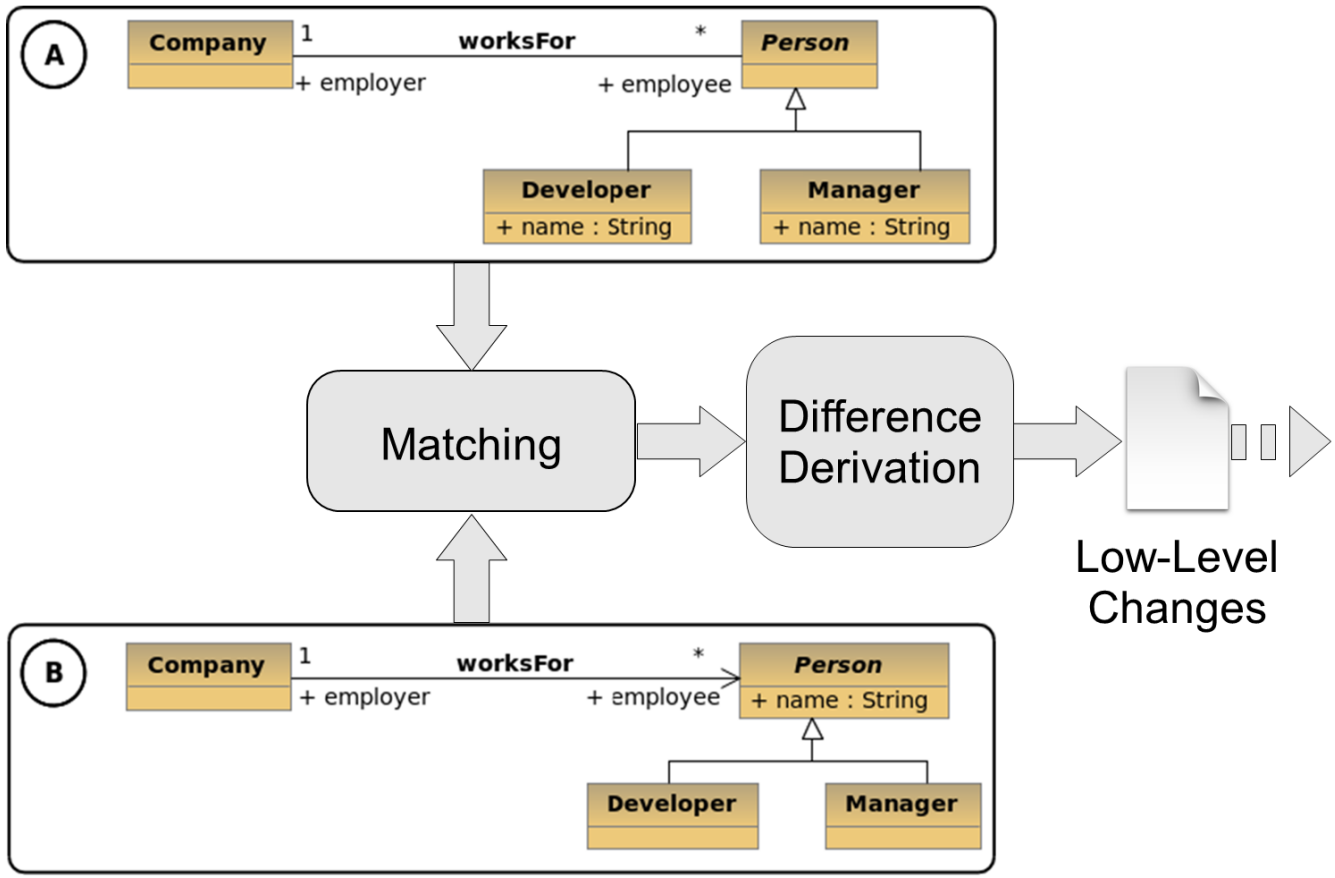
Controlled Merging (3)



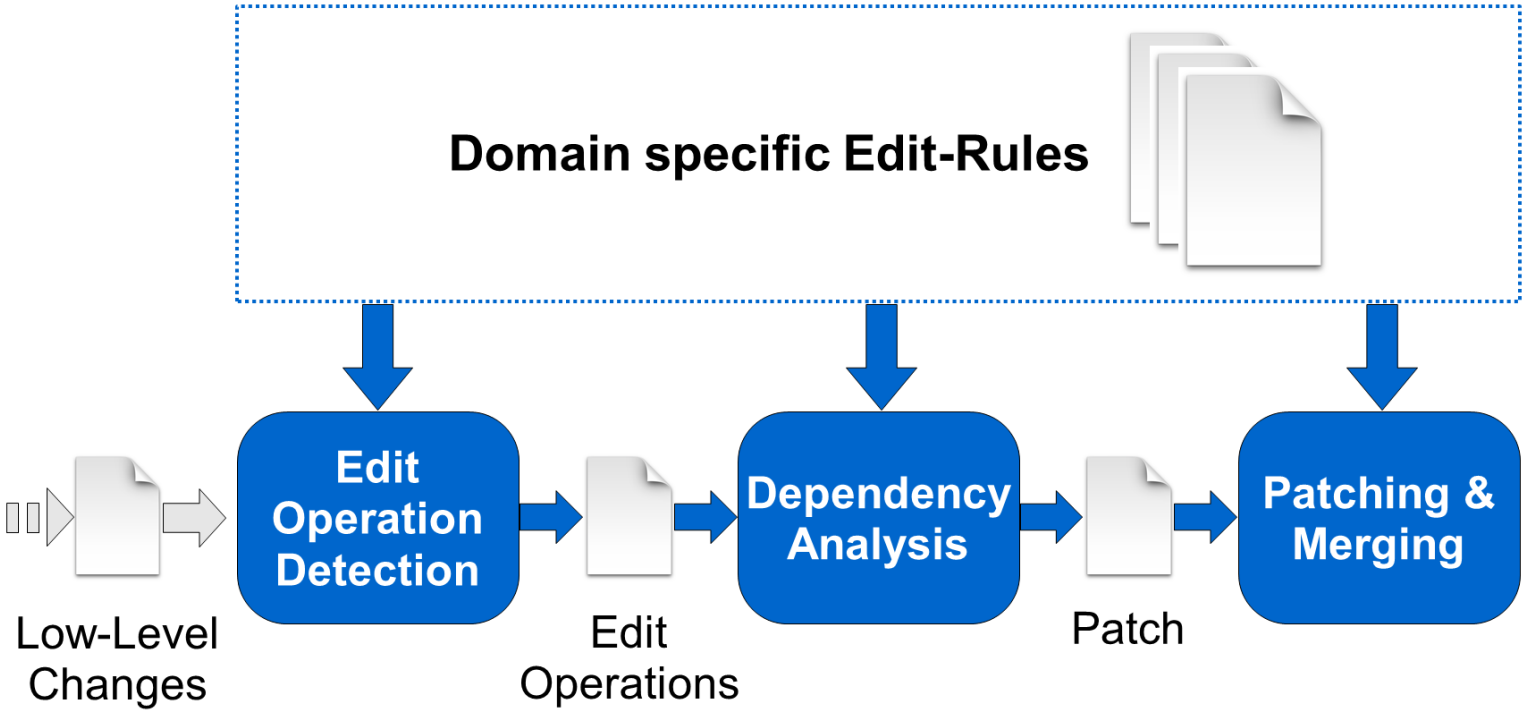
Section 3

SiLift Approach

SiLift Pipeline (low level)

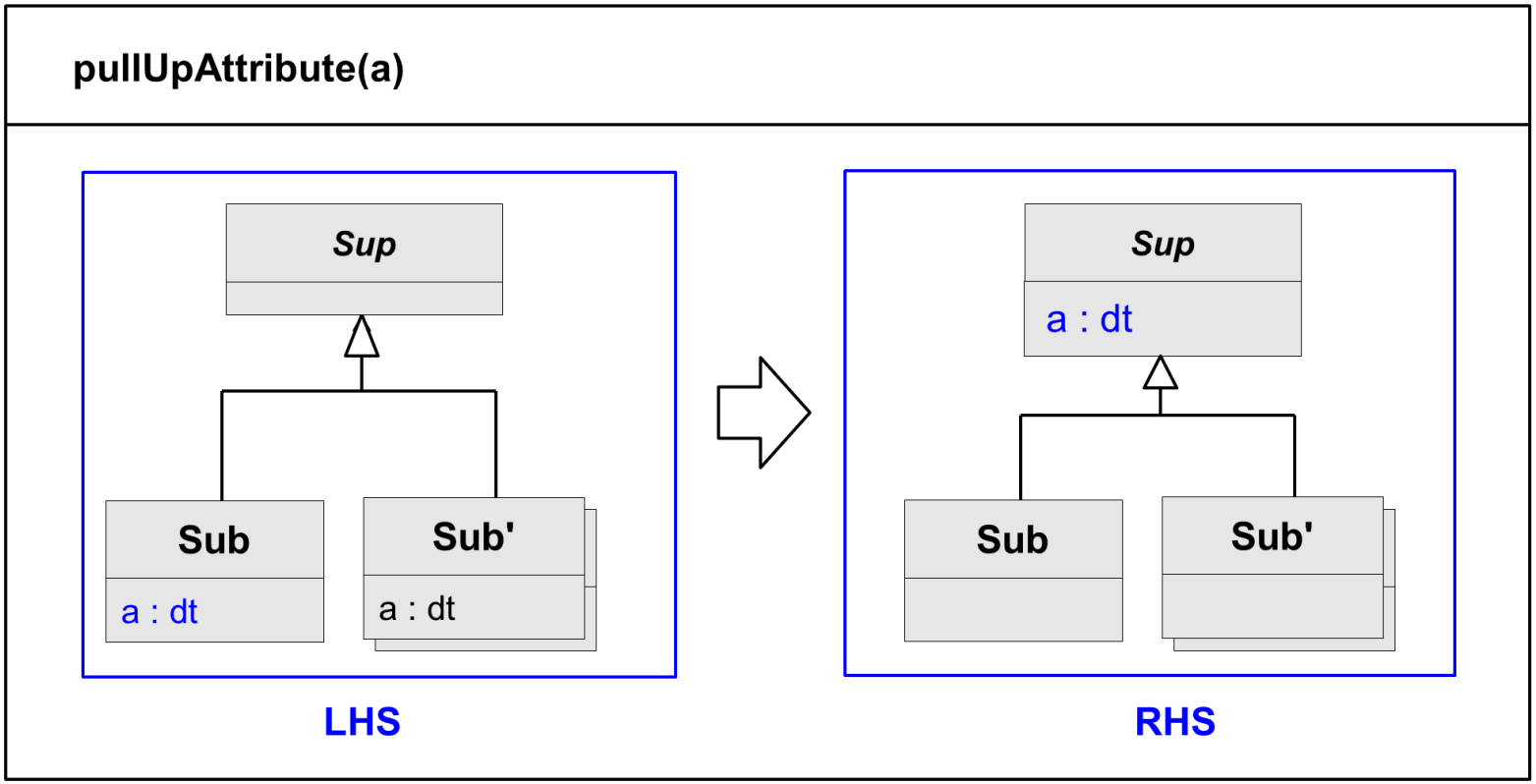


SiLift Pipeline (high level)

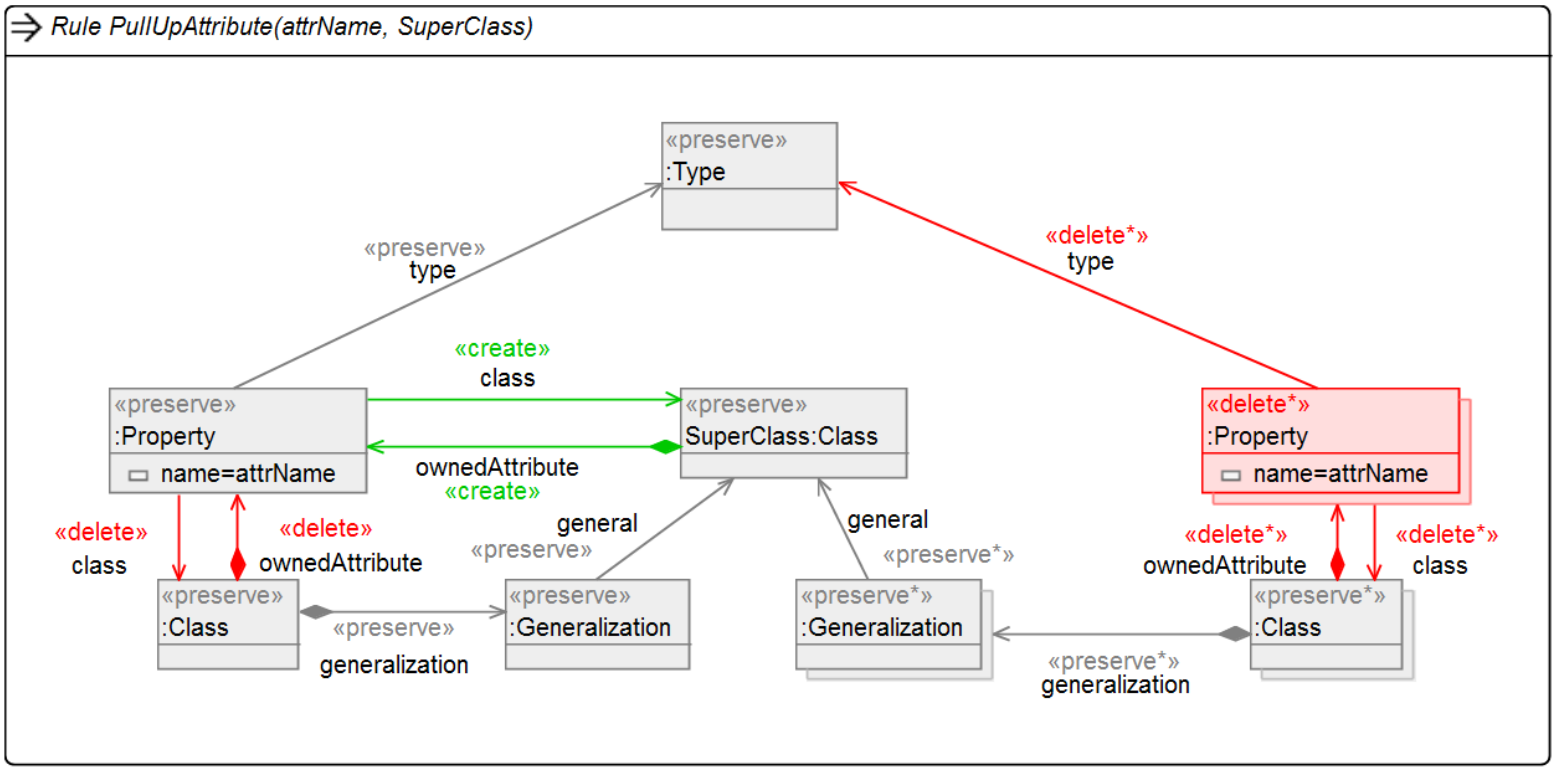


High-level changes based on complex editing commands.

Theoretical Foundation



Practical Usage



Section 4

Summary

Summary

SiLift Tools

Support for High-level model-based

- Differencing
- Patching
- Merging

Contact/More information

Web

- http://pi.informatik.uni-siegen.de/Projekte/SiLift

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- mohrndorf@informatik.uni-siegen.de

Personal

- Now ;-)