

COMA ++

Semi-automatic Information and Knowledge Systems

Hömstreit Roman, Senussi Ziad

Overview

- **Introduction**
- **Architecture**
- **Ontology Support**
- **Match Strategies**
- **References**
- **Demonstration Info**
- **Tool Demonstration**

Introduction

- Solving match problems important for:
 - Interoperability
 - Data integration
- Current techniques and prototypes
 - Semi-automatic
 - Poor user-interface if any
 - Potential of reuse is not fully exploited
- COMA ++
 - Schema and ontology matching tool

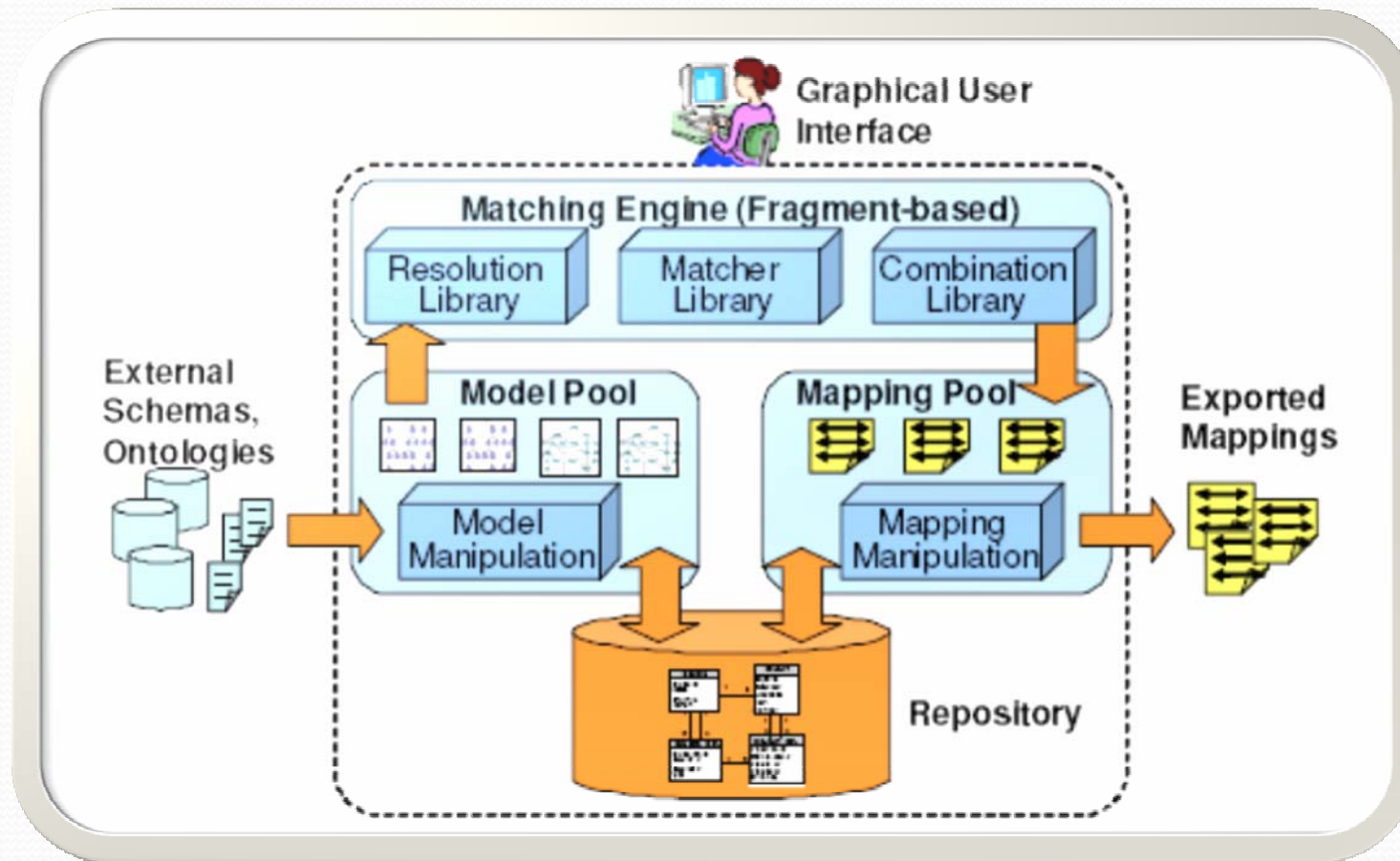
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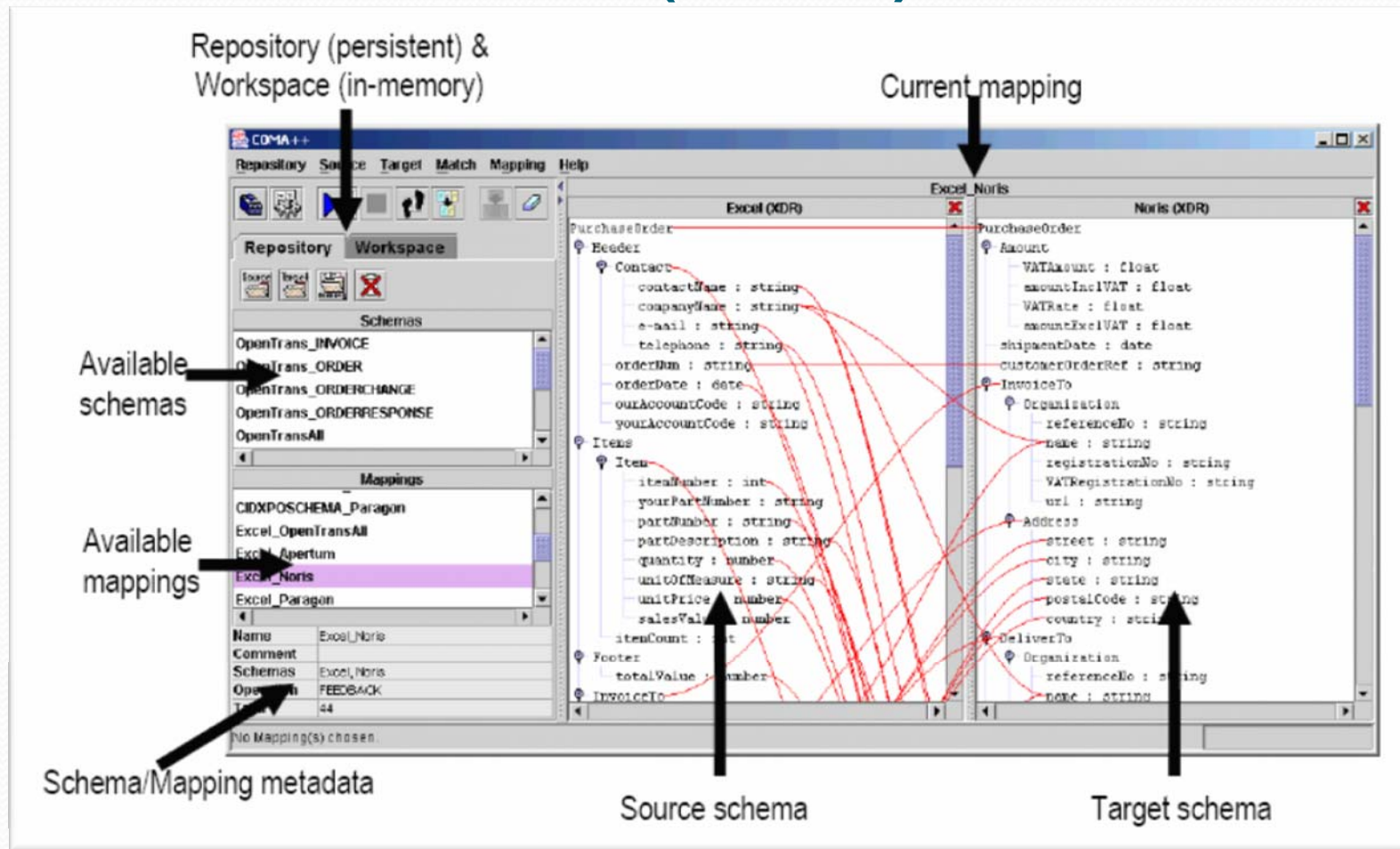
Architecture

- five main parts:
 - Repository
 - Model Pool
 - Mapping Pool
 - Match Customizer
 - Execution Engine

Architecture



Architecture (GUI)



Overview

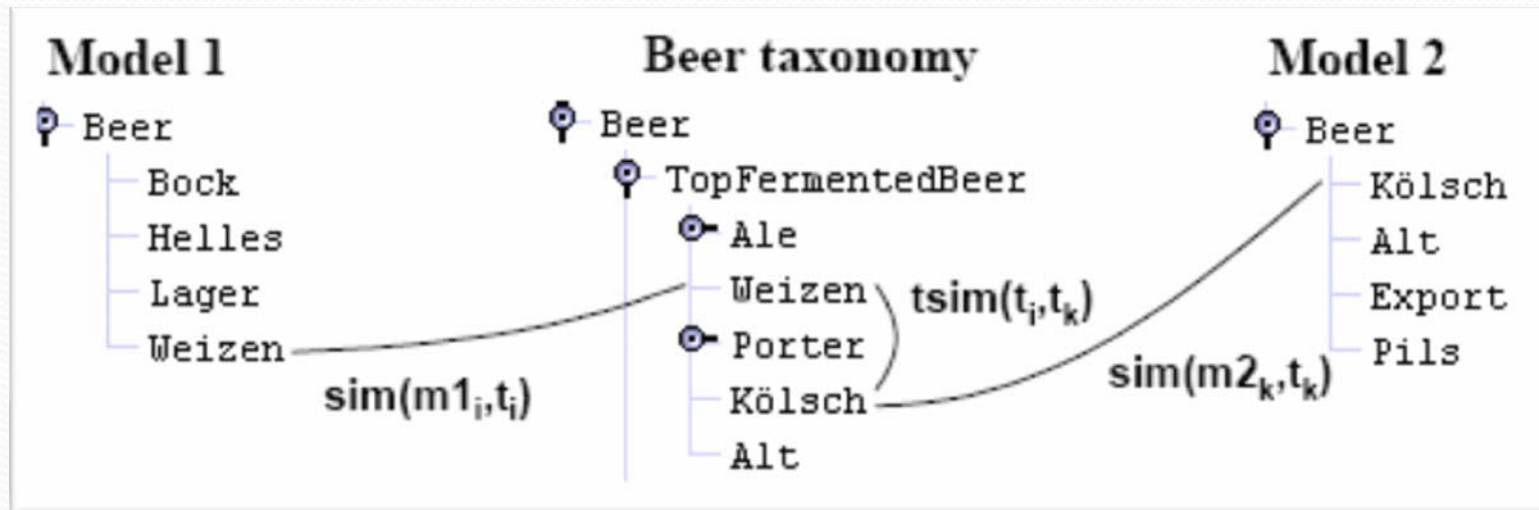
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Ontology Support

- Model Support
 - XSD
 - XML Data Reduced(XDR)
 - OWL
 - Relational schemas
- Taxonomy Matcher

Ontology Support

- Taxonomy Matcher



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Match Strategies

- Fragment-based Matching
 - Identify similar fragments
 - Match fragments
- Reuse-oriented Matching
 - Direct mappings
 - Complete mapping paths
 - Incomplete mapping paths

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References

- <http://dbs.uni-leipzig.de/Research/coma.html>
- http://dbs.uni-leipzig.de/Research/coma_index.html
- <http://www.dit.unitn.it/~p2p/OM-2006/0-coma-OAEI'06.pdf>
- <http://dbs.uni-leipzig.de/file/comaplusplus.pdf>

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Demonstration Info

- Technical data:
 - Written in Java
 - Latest free available Version 2005b
- Requirements
 - JRE 5.0
 - MySQL database version 4.1 (doesn't work with 5.0)
- Test-Envirement
 - Windows XP – Home Edition

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