COMA ++
Semi-automatic Information and Knowledge Systems
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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 Customizter
  - Execution Engine
Architecture
Architecture (GUI)
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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.html)
- [http://dbs.uni-leipzig.de/Research/coma_index.html](http://dbs.uni-leipzig.de/Research/coma_index.html)
- [http://www.dit.unitn.it/~p2p/OM-2006/0-coma-OAEI’06.pdf](http://www.dit.unitn.it/~p2p/OM-2006/0-coma-OAEI’06.pdf)
- [http://dbs.uni-leipzig.de/file/comaplusplus.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-Environment
  - Windows XP – Home Edition
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