Chimæra
An Environment for Merging and Testing Large Ontologies

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Background

- developed by Knowledge Systems Laboratory (KSL) at Stanford University, CA, USA

- was built on top of Ontolingua

- runs in web browser, available over the www
What is it about?

- merging ontologies
- diagnosing ontologies

- loading (and creating) knowledge bases
- reorganizing taxonomies
- resolving name conflicts
- browsing ontologies
- editing terms
- ...

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How does it work…

In principle?
- Go to URL and login
- Create a new KB by selecting „Ontolingua“ from the „Create a new KB of this type“ drop down menu
How does it work...

- Specify name in the textfield
- Select „Hpkb-Upper-Level-Latest“ as parent KB and click on „Do it“
How does it work...

- Load a KB by selecting „Upload into current KB“ from the „File“ drop down menu.

- Select KB content to upload by specifying the URL of the KB and selecting the language of the KB (OKBC)
How does it work...

- Upload another KB
- Stub out missing frames by selecting it from the "Class" menu
- Change into "Name Resolution" mode by selecting it from the "Mode" menu.
How does it work...

- Select "Shared the same name...: Weapon of Mass-Destruction, Weapon of Mass-Destruction$-In-Cyc-Products-10$"

- Merge classes by selecting it from the "Class" menu
How does it work...

- Result of merging
How does it work…

- And in practice?
  → short demo (about 5 min)
Strengths

- Supports OKBC (Open Knowledge Base Connectivity) standard
- Supports more than 15 input formats (such as ANSI KIF, Ontolingua, Protégé, CLASSIC, iXOL, etc.)
- Supports different editing environments
- Supports the user by suggesting potential merging candidates (based on properties)
- Includes incompleteness tests, syntactic checks, taxonomic analysis, and semantic checks
- ...


Shortcomings

- Limited consistency checks
- User can’t add domain-specific tests
Ongoing work

- reasoning capabilities
- semantic analysis
- extensibility
- usability by non-experts
References & Resources

Chimaera
http://ksl.stanford.edu/software/chimaera/

Chimaera Tutorial
http://www.ksl.stanford.edu/software/chimaera/tutorial/

Ontologies