

ONTOLOGIES

How to use them to map .lib
to ALF

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What is an Ontology?

- Short answer:

An ontology is a specification of a conceptualization.

- Formal answer:

- 1 a vocabulary and

- 2 a set of relations between the words in vocabulary and

- 3 a set of axioms (rules) about 1 and 2

What an ontology is *for*?

- Purpose of enabling knowledge sharing and reuse
- Used for making ontological commitments

Ontological Commitment

An agreement to use a vocabulary (i.e., ask queries and make assertions) in a way that is consistent with respect to the theory specified by an ontology

The Library Ontology

- A unique set of elements identified from both ALF and .lib (pin, cell)
- Relations that exist between the elements
- General library rules (restrictions)
- Knowledge (represented by the Library Ontology) is independent of representation

Use of Library Ontology

- Specify ALF and .lib semantic in terms of Library Ontology concepts
- Identify easily translatable subset
- Identify hard to translate constructs
- Facilitate future ALF and .lib developments
- Use it as input to “smart” library tools

Are we ready?

- Free robust ontology editors @ <http://protege.stanford.edu/index.html>
- Collaborative effort in developing the ontology is feasible
- Modern standardization means ontology
- Ontologies are not going away

