ONTLOGIES

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