

Session 4: Engineering Tracks 1 & 2

Summit Goal:

- foster collaboration between the ontology community, systems community, and stakeholders of some of the "big systems."
- exchange ideas on how ontological analysis and ontology engineering might make a difference, when applied in these big systems.

Ontology in Engineering

Started with engineering view of where ontology might provide value

integrating the results from multiple modeling languages
issues of sharing data within and between lifecycle stages
difference between requirements and delivered system
systems of systems vs systems
the nature of system components, connections between components, and the difference between these and the parts installed
the connections between system components and what they carry
social, legal, and value-related aspects in systems behavior
federated systems both as a big system, and as a solution to some of the challenges
Construction of good quality reusable models (ontologies)
the management of ontologies of and for large systems and the challenges in developing and maintaining them

Emerging issues and threads
(tentative grouping)

- Composite system modeling including :
Parts, components, roles, qua-objects, functions ,
part replacement and virtual individuals, Nominal values (bishop of Liverpool)
- Success and relevance of semantic issues in engineering
- Distinctions between natural and artificial systems
- Distinctions between system descriptions in different lifecycle stages and for different purposes
- Semantic interoperability (?)
-a lot of topics on left missing