

# **Ontology Summit 2012**

Cross-Track A1:  
Ontology Quality & Large-Scale Systems

Panel Session:  
**Implementing Ontology Quality Measures  
in Big Systems Engineering**

Co-Champions  
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# Cross-Track A1 Mission Statement

This cross-track aspect will focus on the evaluation of ontologies within the context of Big Systems applications. Whether creating, developing, using, reusing, or searching for ontologies for use in big systems, engineers, architects, designers, developers and project owners will encounter questions about ontology evaluation and quality. How should those questions be answered? How do we know whether an ontology is fit for use in (or on) a large-scale engineered system or a large-scale systems engineering effort? This cross-track aspect ties together the evaluation-related discussions that arise within the Summit Tracks and individual sessions, providing a context in which to take up and address the issues generally. Specific focus will evolve with recurring themes, potentially including such topics as ontology quality characteristics, fitness for purpose, requirements, metrics, evaluation methodologies and resources.

# Today's Session

As large-scale systems applications of ontologies have multiplied, systems engineers face continued challenges in ontology quality assurance ("QA"). Reliable methods and tools for all aspects of ontology QA are needed, including: specification of ontology requirements; evaluation of requirements satisfaction by new or existing ontologies; and management of ontology quality throughout systems life-cycles. Ontologists with application life-cycle experience have been paying increasing attention to these needs, but information about successful tools and methods is hard to come by. We will also discuss the importance of ontology requirements specification, considering the wide range of roles ontology can play in systems and systems engineering and the variety of ontological artifacts, sub-systems, and processes that may best meet those requirements. This Panel includes experts on varied areas of ontology quality assurance and management, and will discuss successful approaches, lessons learned, and challenges yet to be met.

# Agenda

- Opening (co-chairs)
- Panel presentations:
  - **Dr. [Aldo Gangemi](#)** (ISTC-CNR STLab, Rome, Italy) *"Ontology Evaluation and Pattern-based Design"*
  - **Dr. [Jennifer Williams](#)** (Highfleet, US) *"System requirements and the unobtrusive ontology"*
  - **Dr. [Nicola Guarino](#)** (IAOA; ISTC-CNR LOA, Trento, Italy) *"Ontology quality, ontology design patterns, and competency questions"*
  - **Dr. [Amanda Vizedom](#)** (Wind River, US) *"Finding or Making Ontology Fit for your Purpose"*
- Q & A for Panel
- Q & A for Community