The System Concept: Bringing Order to Chaos
A Full-Day Tutorial with Regina Griego
Friday, 26 October 2012, 8:00 a.m – 4:30 p.m.
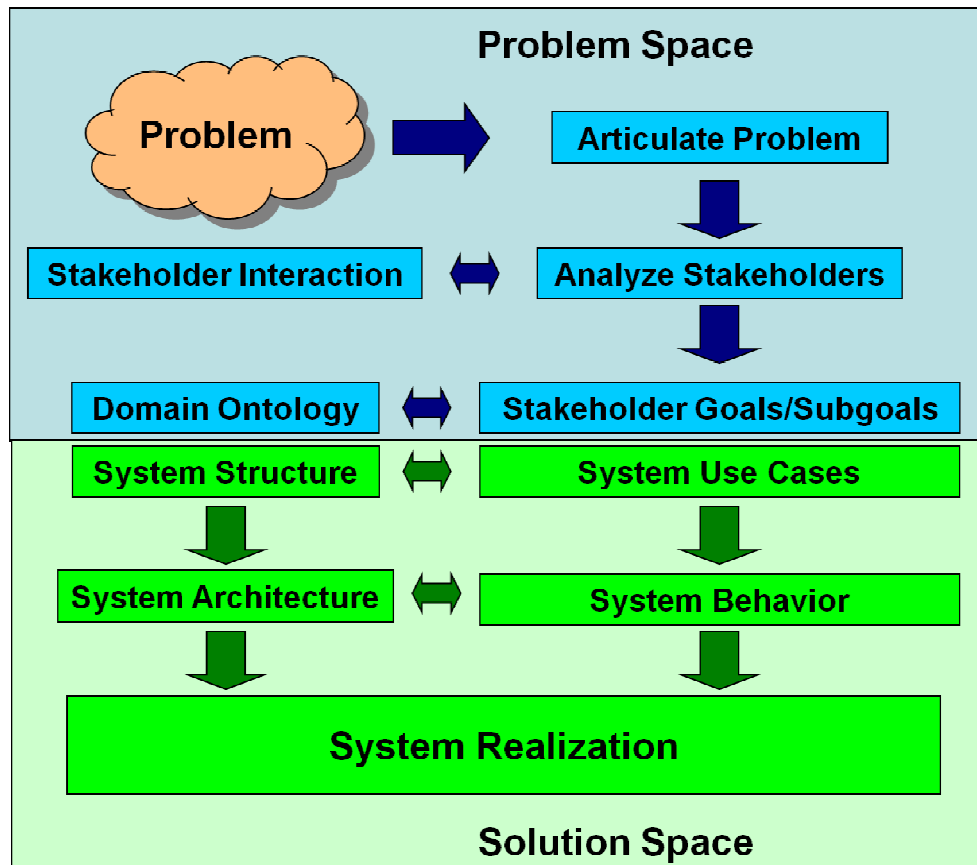*Location: CNM Workforce Training Center, 5600 Eagle Rock Ave., NE, Albuquerque, NM 87113*

ABSTRACT

Most concurrent engineering efforts begin while the product concept is still fluid and with no defined requirements elicitation process. If engineering teams proceed to design with a fluid product concept, the uncertainty practically ensures that the product developed will not meet stakeholder expectations. The goal of a requirements elicitation and analysis process should be to develop a shared vision or concept of the system to be specified before concurrent engineering design efforts begin in earnest. This shared vision is often called a conceptual model and is an extremely useful communication tool at the onset of a project. The system conceptual model becomes the initial mapping of the intangibly abstract into something more concrete that anchors the team's communication.

This tutorialshows how to use a model-based approach to go from stakeholder goals to a behavioral (use case) architecture and a high-level system architecture. This approach is particularly useful in the commercial domain and for internal products in the government domain; but can also be scaled for large government programs. Participants will gain understanding and practice in

→ 1) How to analyze stakeholders based on function,
→ 2) How to develop a behavioral conceptual model for a system based on stakeholder goals, and
→ 3) How to develop an initial system structural model based on stakeholder language.

The tutorial will include lecture with examples and many exercises based on a case study that allows the attendees to develop the artifacts as the tutorial progresses, e.g., problem statement, stakeholders, stakeholder goals, use case architecture, structural diagram, etc. Example solutions for the exercises will be provided after each exercise. Tutorial members will participate in group exercises. Q&A will be an integral part of the classroom interaction.

Regina is a respected leader in the areas of requirements engineering and systems engineering. Her academic and industry focus incorporates modeling as a way to formalize problem understanding and develop requirements. Regina has also been instrumental in enterprise modeling and improvement in various application domains throughout her career. She is a Fellow of INCOSE and an Industry Fellow for Stevens Institute of Technology, School of Systems and Enterprises. Regina was the Technical Director for INCOSE in 2009-2010 and Founding President of the INCOSE Enchantment Chapter.

Regina has 28 years of experience in various positions including technical management, leading technical integration on programs, as a systems engineer or requirements engineer, teaching systems engineering and building systems engineering capability, and as a design engineer. She has worked on various types of systems including weapon, telemetry, medical, point-of-sale, transportation, and enterprise systems. As a designer she has 10 years of experience, skill and knowledge of software, firmware and hardware systems working primarily in embedded systems architecture, modeling and development.

MEETING DETAILS

Location: CNM Workforce Training Center, 5600 Eagle Rock Ave., NE, Albuquerque, NM 87113, (505)-224-5200, URL: http://www.cnm.edu/campus/wtc/, near I-25 and Alameda Blvd. exit.

Package: The tutorial cost includes notes. (Food/beverages not included.) Acknowledgement of payment receipt will be by email.

Payment: Please submit the attached registration form and $400 (member), $450 (non-member) or $0 (student) as indicated on the form. See the Enchantment Chapter website and click on the link to the Tutorial page for opportunity to pay with PayPal. www.incose.org/enchantment

TUTORIAL ENROLLMENT FORM (Remit with Payment)

"The System Concept: Bringing Order to Chaos
Friday, October 26, 2012
Albuquerque, NM

→ *PLEASE COMPLETE AND RETURN BY WEDNESDAY OCTOBER 17*

Name: _____ Position (optional): _____

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Payment by CHECK: submitted with this form made out to "INCOSE Enchantment Chapter". Check payment will *not* be accepted at the door.

Mail completed form(s) (and a check, if that's your form of payment) **to**:

> **October 2012 Tutorial**
> **INCOSE Enchantment Chapter**
> **P.O. Box 50516**
> **Albuquerque, NM 87181**

Questions? Please contact Ann Hodges at alhodge@sandia.gov or Woody Weed at jwweed@sandia.gov.

Note: Attendees can purchase beverages and snacks at the CNM Workforce Training Center. Bring your lunch or enjoy lunch at one of the nearby restaurants.