## **TUTORIAL ENROLLMENT FORM (Submit to**

**INCOSEEnchantment@comcast.net**)

# **Interface Management – from Theory to Modeling**

(Friday, 23 October 2015) Albuquerque, NM

(a) please fill out and email this registration form to INCOSEEnchantment@comcast.net

Name:			
Company:			
Day Phone: Cell Phone (o	Cell Phone (optional):		
Email: INCOSE Mer	INCOSE Member No.		
Designate the amount paid:			
	INCOSE Member	Non- Member	Student
TUTORIAL: Interface Management – from Theory		\$200	\$0

### (b) Payment Methods:

to Modeling

- Payment by CREDIT CARD: can *only* be accepted via the link at the INCOSE Enchantment web site: <a href="www.incose.org/enchantment">www.incose.org/enchantment</a> go to the Tutorials page under the Library and Resources home-page tab. Credit card payment will *not* be available at the door.
- Payment by CHECK: mail your check, payable to "INCOSE Enchantment Chapter," with a copy of this registration form to:

Fall 2015 Tutorial INCOSE Enchantment Chapter P.O. Box 50516 Albuquerque, NM 87181

TO SUMMARIZE: Please (a) submit this form by email (whether paying by check or credit card) and (b) pay on-line or by check. Your receipt sent via email from the Chapter (not the email from PayPal for those who pay by credit card) will act as your confirmation. If you do not receive an email from the Chapter or have trouble paying, please contact Mary Compton at <a href="mailto:mlcmpt@sandia.gov">mlcmpt@sandia.gov</a>

For any other questions, email Ann Hodges at alhodge@sandia.gov.

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# <u>Interface Management – from Theory to</u> <u>Modeling</u>

# Led by Matthew Hause

Friday, 23 October 2015, 8:00 a.m. – 5:00 p.m. Workforce Training Center, Albuquerque, NM

Brought to you by the INCOSE Enchantment Chapter, Albuquerque NM

## Tutorial: Interface Management - from Theory to Modeling

Systems interoperate using interfaces. They exist between capabilities, organizations, people, systems, systems of systems, and so forth. Interfaces are used to support both system to system communication as well as supporting the complete set of enterprise goals. This tutorial addresses system interface-management issues and the benefits of model-based approaches. An initial focus will be placed on interface information content that needs to be addressed at each level of system decomposition – from external stakeholders to system boundary to, eventually, system component-to-component. The focus will then shift to methods for reducing interface management theory to model-based and functional/logical design practice. We will also cover system interconnection and communications, how they change, operate and evolve over time to implement mission goals and to satisfy stakeholder needs.

**Participants will receive** a) Instruction: An introduction to MBSE and a detailed look at interfaces through different levels of abstraction will be covered. b) Course Notes: Each student will receive a set of course notes in PDF format for reference. c) Practice: Students will have an opportunity to practice MBSE modeling in classroom exercises.

# **Learning Objectives:**

- Setting enterprise goals and capabilities
- Defining interaction requirements
- Implementing effective and testable interface specifications
- Traceability throughout the DoDAF

#### The course is aimed at:

- Systems Engineers
- Managers
- Enterprise Architects

## **Topics:**

- Defining stakeholder goals and required capabilities
- 2. Interface definition with MBSE
- 3. Logical Architecture Interfaces
- 4. Physical Architecture Interfaces
- 5. Allocation across cross cutting views
- 6. Technical Standards Views and interfaces
- How behavior drives interfaces which drive behavior
- 8. Service Oriented Architectures



#### THE PRESENTER

Matthew Hause is a PTC Engineering Fellow and GTM Technical Specialist, the co-chair of the UPDM group a member of the OMG Architecture Board, and a member of the OMG SysML specification team. He has been developing multi-national complex systems for over 35 years. He started out working in the power systems industry and has been involved in military command and control systems, process control, manufacturing, factory automation, communications, SCADA, distributed control, office automation and many other areas of technical and real-time systems. His roles have varied from project manager to developer. His role at PTC includes mentoring, sales presentations, standards development, presentations at conferences, specification of the UPDM profile and developing and presenting training courses. He has written over 100 technical papers on architectural modeling, project management, systems engineering, model-based engineering, human factors, safety critical systems development, virtual team management, product line engineering, systems of systems, systems and software development with UML, SysML and Architectural Frameworks such as DoDAF and MODAF. He has been a regular presenter at INCOSE, the IEEE, BCS, the IET, the OMG, AIAA, DoD Enterprise Architecture, Embedded Systems Conference and many other conferences. He was recently a keynote speaker at the Model-based Systems Engineering Symposium at the DSTO in Australia. Matthew studied Electrical Engineering at the University of New Mexico and Computer Science at the University of Houston, Texas.

#### **MEETING DETAILS**

<u>Time</u>: Registration is 7:30 – 8:00 a.m.; Tutorial is 8:00 a.m. – 5:00 p.m.

Date: Friday, October 23, 2015

<u>Place</u>: Room 207, Workforce Training Center (WTC), 5600 Eagle Rock Ave. NE Albuquerque, NM 87113,

http://www.cnm.edu/depts/wtc/index.html.

<u>Directions</u>: From Junction of I-40 and I-25 in Albuquerque take I-25 North to exit 233, Alameda Boulevard. Take a left and cross the freeway. See map to left.

<u>Package</u>: The tutorial cost includes tutorial notes, lunch and snacks.

<u>Payment</u>: Please (a) submit the attached form by email <u>and</u> (b) pay by check or on-line (see Tutorials under Library tab at <u>www.incose.org/enchantment</u>). Your receipt sent via email from the Chapter (<u>not</u> the email from PayPal if you pay by credit card) will act as your confirmation. If you do not receive an email from the Chapter or have trouble paying, please contact Mary Compton at <u>mlcompt@sandia.gov</u>.

<u>Contact</u>: Other questions? Contact Ann Hodges at <u>alhodge@sandia.gov</u>.

