The NorthCoast Interfacer







http://www.incose.org/cleveland/index.htm

President's Corner

Have you ever had the good fortune to be a member of a *fabulous* team? If so, you probably know the satisfying fulfillment that I enjoy while collaborating with the C-NO Board of Directors and Committee Chairs.



The 2014 team of C-NO Chapter Leaders has now been hard at work for six months, taking progressive action, to better serve our members. I want to recognize their productive service and give you a glimpse of some behind-the-scenes operations.

First, I should explain that the *C-NO Chapter Bylaws* require the Board of Directors to meet "at least twice a year." I am pleased to report that the longstanding C-NO Board tradition is to meet *monthly*—in addition to the regular Chapter Meetings. Thus, Board Members typically gather 24 times, each year. Since January 2014, we have held additional Special Meetings, to develop plans for exciting new programs and events.

By attending our monthly Chapter Meetings, you have surely come to know the Chapter Leaders listed below. If not, please allow me to introduce them ...

- Carl J. Dister (Vice President / President-Elect). Carl is a Systems Thinking visionary who loves to challenge the status quo. He persistently strives for better long-term societal outcomes. He will be a *great* C-NO President, in 2015.
- Cody Farinacci (Past President). Cody inspires all of us with his "can do" attitude and cheerful approach to solving daunting problems. This summer, Cody will recruit candidates for C-NO Offices in 2015, so please nominate a strong slate.
- **Dennis W. Rohn** (Membership Chair and Webmaster). A Past President of the C-NO Chapter, Dennis carries a tremendous knowledge of Chapter history, going back to the founding of the Chapter in 2007. We are blessed to have his ongoing guidance and wisdom. In addition to his tireless service as Webmaster, in 2014 Dennis kindly took on the Membership Chair title—a role that he has modestly and expertly performed, for many years.

• **Katie Trase** (Secretary). Going far beyond her secretarial duties, Katie generously volunteered to lead the development of a C-NO MBSE Workshop, in response to member demand. By attending the August Chapter Meeting, you can help to define the scope and nature of that workshop.

- Marian Cronin (Treasurer). Marian keeps the Chapter's financial affairs in good order, while wholeheartedly supporting new initiatives that merit funding from the C-NO Treasury. Further, I am grateful for Marian's endless stream of clever ideas for new C-NO activities.
- **Sean Beckman** (Communications Chair). Sean has capably served as C-NO Newsletter Editor, since 2009. In 2014, he was unanimously appointed to the larger role of Communications Chair. Don't hesitate to send Sean any information that you wish to share with C-NO Chapter Members.

What a pleasure, to work with this team of talented and dedicated people!

Bill Klinger C-NO President (2014)

New Chapter Members

We heartily welcome two new members, who joined the C-NO Chapter in June 2014:

- John P. Collins (Systems Design Engineer; Philips Healthcare)
- Stephen A. Voels (Program Manager; Science Applications International Corporation).

It has been a pleasure to get to know John and Stephen during several recent Chapter Meetings.

Bill Klinger C-NO President

Member Profiles

Every month, as Membership Chair, I check the Chapter Membership listing to see if we have gained new members, or if memberships have lapsed. This listing is also the primary source used to create the Chapter's email reflector distribution list. The Chapter membership listing draws upon information in each member's profile to populate many of the fields, including email addresses and employer. In reviewing this listing, I have noticed that some active members have some obviously incorrect information in their profile and occasionally reflector emails bounce because of outdated email addresses in member profiles. I would encourage you to take a couple minutes to check your profile to make sure it is up to date. You can check it by going to the INCOSE Home Page and clicking on the "View / Update Member Record" link (https://www.incose.org/membersOnly/memberInfo/updateMemberInfo.cfm) on the left hand side. You will need to use your INCOSE username and password to access your profile. If

you have any issues with updating your profile, I would recommend contacting the INCOSE Office.

- submitted by Dennis Rohn, Membership Chair

Upcoming Events

July 28-30, 2014

INCOSE-IEEE EnergyTech 2014, held jointly with the AIAA Propulsion and Energy Forum and Expo; Cleveland Convention Center.

http://www.aiaa-propulsionenergy.org

October 10-11, 2014

INCOSE Great Lakes Regional Conference (GLRC 2014), "Systems Engineering Across the Lifecycle"; Schaumburg, Illinois.

http://2014incoseregional.eventbrite.com

Recent Chapter Meetings

May 27, 2014

Dr. Brian Castellani, Professor of Sociology at Kent State University, spoke about "Complexity and Its Implications to the Systems Engineering Process."

Some key takeaways:

- The *INCOSE SE Handbook* and *ISO-15288* "Process Areas" are deficient in modeling complex, dynamic systems. (A reported consequence of "rigidity, overcontrol, and overplanning.")
- As complexity increases, the ability of technology to dominate the solution space is diminished.
- It is essential to make complexity an *explicit* part of the system model and development plan, from the very start of the life-cycle process.
- *Complexity* is partly about "what cannot be modeled."
- Complex systems have too many nonlinearities to both fully model accurately and *control*.
- The INCOSE Complexity Working Group offers 13 "Points of Advice."
- The "Sociology and Complexity Science (SACS) Toolkit" is a case-based, mixed-methods, density approach to modeling the temporal and spatial complexities of "big data." (*Cases* are complex systems.)

Brian's slide-show presentation can be accessed via the "Chapter Presentations" section of the C-NO Chapter Library:

http://www.incose.org/cleveland/library.php

June 17, 2014

Katie Trase (Systems Engineer at the NASA Glenn Research Center) led a review and discussion of *Model-Centric Engineering*, *Part 1: Introduction to Model-Based Systems Engineering*. This NASA-produced video, featuring Daniel L. Dvorak (of the Jet Propulsion Laboratory), informed us about the following topics:

- Definition of MBSE.
- Current Systems Engineering challenges that MBSE seeks to address.
- How system models compare to other discipline models.
- How MBSE compares to current Systems Engineering practice.
- MBSE adoption challenges and lessons learned.
- An MBSE case study, from a NASA spacecraft.

Between each segment of the video, Katie deftly facilitated a spirited discussion of the concepts presented.

Attendees filled out Katie's Feedback Form, to help define the future C-NO MBSE Workshop.

MBSE Workshop Update

The C-NO Board of Directors is planning a Model-Based Systems Engineering (MBSE) and Systems Modeling Language (SysML) Workshop for this fall. C-NO Chapter Membership reviewed and discussed Part I of an online training module, and plans to review Part II as a group in August. Discussions in June were lively and I expect the August meeting to be the same! Both segments of these training modules are intended to introduce MBSE and SysML at a top level to prepare participants for the hands-on Workshop this fall. The Board of Directors received excellent input on the appropriate Workshop scope from attendees of the June meeting, and look forward to additional guidance from the Chapter in August. The Board of Directors is striving to make the Workshop useful to your domain, and we encourage any thoughts or comments you might have on course content or structure.

Future Newsletter Series: The (SysML) Model Wedding

Our C-NO Chapter Secretary, Katie Trase, has recently started planning her wedding for June, 2015. In an effort to both plan a stress-free wedding, and share her knowledge of MBSE and SysML, Katie has volunteered to write monthly newsletter articles tracking her progress in wedding planning from the systems engineering perspective. Be sure to check out each

newsletter over the coming year for an update on wedding requirements, guest-list-creep, wedding cake inspections, and more!

Employment connections

Job Seekers

Sean Beckman - I am currently seeking employment as a systems engineer so in the North East Ohio area. I have been a systems engineer for over 13 years mostly in the area of government contracting in aerospace with some in commercial aircraft. Most of the time has been at NASA but also subcontracting to Boeing on the 747-8 commercial aircraft and most recently supporting the Army with trade studies. I hold an active secret clearance. I have experience in requirements management, risk managements, model based systems engineering, trade studies, systems architecture, interface definition and integration and verification. sean.beckman@incose.org

Consulting Services

TBD

Job Openings

TBD

Did you know?

We may think of Systems Engineering as a relative newcomer into the interdisciplinary fields of engineering, but as early as 1949, the US Navy Electronics Laboratory in San Diego recognized the concept of systems engineering as a means to convert new ideas into "practical pieces of equipment for use by the fleet."

-From a March 1949 article in Popular Mechanics magazine.

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If you are on Facebook, search for <u>Cleveland-Northern Ohio INCOSE Chapter</u> and "like" us. And of course don't forget to check our website for information and updates. http://www.incose.org/cleveland/index.htm



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