

The Integrator

INCOSE North Star Chapter



Volume 3, Issue 2

April 2007

North Star Newsletter

INCOSE North Star Newsletter Communication

This year's newsletter will feature a series of articles on INCOSE Working Groups. April's article is on Systems Architecting.

Eileen Arnold, Editor

"Engineering is not merely knowing and being knowledgeable, like a walking encyclopedia; engineering is not merely analysis; engineering is not merely the possession of the capacity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organized forcing of technological change... Engineers operate at the interface between science and society..."

Dean Gordon Brown

Systems Engineering at its Best!
INCOSE's Architecture Working Group (AWG)

The International Council on Systems Engineering (INCOSE) Architecture Working Group (AWG) technical working group is a collaborative international team of systems engineering with a passion for architecture. It is currently co-chaired by Dr. Charles Dickerson of BAE Systems and Professor Dimitri

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WELCOME, NORTH STAR NEW MEMBERS!

Name	Company	Title
Bielski, Ruth	Honeywell, Inc.	Senior SW Eng
Larish, Susan	BAE Systems	Mgr, Tool and Info Architecture
Ullestad, David	Medtronic, Inc.	Sr. Prin Sys Eng

Chapter Presidents Corner

Elliot Abrons, BAE Systems

This month, INCOSE's Architecture Working Group is highlighted in the article, "Systems Engineering at its Best!". The AWG is not the only working group where we can work with the world's best practicing SE professionals. Other groups deal with Anti-Terrorism International, Human Systems Integration, Intelligent Enterprises, Intelligent Transportation and Transit Systems, Measurements, Model Driven System Design, Net-Centric Operations, Requirements, Risk Management, Space Systems, and Tools. If you are interested in developing SE concepts in the global community, go online with your Connect login to connect with INCOSE's global community of SE practitioners.

<http://www.incose.org/practice/techactivities/>

At the local level we are hosting a full day tutorial, SYSTEM DESIGN, ANALYSIS & DEVELOPMENT on Saturday, May 12, 2007, 08:30 - 16:30 at General Dynamics, Bloomington. To register see the flyer included as a separate attachment with this month's Integrator or our recent e-mailing.

Brain Teaser

At the recent BrainBashers downhill mountain bike race, four entrants entered the challenging slalom event. Alan came first. The entrant wearing number 2 wore red, whereas John didn't wear yellow. The loser wore blue and Steve wore number 1. Kev beat Steve and the person who came second wore number 3. The entrant in yellow beat the entrant in green. Only one of the entrants wore the same number as their final position. Can you determine who finished where, the number and color they wore? [Answer on page 2.](#)

North Star Chapter Website

<http://www.incose.org/northstar>

Mavris of the Georgia Institute of Technology. It has a core leadership team of 10 action-oriented thought leaders from the aerospace community, academia, and both the U.S. Department of Defense (DoD) and U.K. Ministry of Defence (MOD). These leaders are active in the support of standards bodies both within INCOSE and those that collaborate with INCOSE, such as International Organization for Standardization (ISO) and the Object Management Group (OMG). Just this year, a new relation was formed between INCOSE and the Institute of Electrical & Electronics Engineers (IEEE) through collaboration between the AWG and the IEEE System of Systems Engineering (SoSE). This body of knowledge is available through a controlled Share Point web site to all INCOSE members who want to belong to the AWG Architecture Community of Practice (CoP). Currently, the AWG CoP has about two dozen members, who also contribute to the activities of the Architecture Working Group and the architecture body of knowledge.

Most Significant Accomplishments in 2006

In mid 2006, the U.S. Office of the Secretary of Defense (OSD) convened a small group of government, industry and academia personnel, and selected Stevens Institute of Technology to lead the project. Representing INCOSE, Paul Robitaille engaged with Deputy Under Secretary of Defense (DUSD) [Architecture and Technology], suggesting that the group should have direct INCOSE participation in the SoSE Guide development. INCOSE could provide a global representation of the systems engineering community and could help the DoD refine its views on SoSE. With the increasing interest in this subject, as evidenced by the panel on SoS Systems Engineering at the 2006 INCOSE International Symposium and numerous papers addressing the subject, it was timely for INCOSE to participate in the OSD group.

Two members of the AWG, Dr. Charles Dickerson and Dr. Abe Meilich, represented INCOSE in this effort. Originally, it was planned by the selected group by OSD to generate an initial draft in the three weeks following the 2006 International Symposium. But after significant feedback from an expanding group of stakeholders, it took nearly three months to create the draft that was finally agreed upon. INCOSE was honored that the two members from the AWG were invited to participate in the entire process.

Looking Forward in 2007

The INCOSE AWG will be expanding its current research, such as Architecture Based Cost Estimation, into new areas of knowledge to include support of INCOSE work on Model Based Systems Engineering (MBSE), especially as it relates to Model Driven Architecture (MDA). Looking to the future, initial relations

with IEEE SoSE will be deepened as will the AWG's new relation with the World Wide Web Consortium (W3C), through its CEO, Dr. Steve Bratt as part of the effort to pilot the recommendations in the Guide. This period of "piloting" will last approximately six months. Once comments from this period are assembled and reviewed by the original working group for the Guide, a new version of the guide will be issued for broad DoD use.

This summer at the 2007 INCOSE International Symposium in San Diego, Kristen Baldwin, Deputy Director, Software Engineering and System Assurance, Office of the Deputy Under Secretary of Defense, Acquisition and Technology, will chair a panel to report on this win-win relation and the status of the pilot. At this panel, OSD will present the background and motivation for writing the Guide. Both OSD and INCOSE will discuss their insights into the Guide. Looking to the future, the concepts and practices of Net Centricity and Network Enablement of Capabilities will also be discussed along with consideration of how they might be more deeply integrated into future versions of the Guide. Contact:

Charles.Dickerson@baesystems.com

2007 Meeting Calendar

10 May	Symposium Papers	U of St. Thomas
27 June	INCOSE International Symposium	San Diego, CA
12 July	Brewery Tour and Social	Water
9 August	Standards - Symposium Debrief	tbd
12 September	Electric Machinery Tour	EM
11 October	SE Certification	tbd
8 November	Medtronic	Medtronic
13 December	Member Holiday Party + Guest	

Name Wore Color
 1 Alan 2 red
 2 Kev 3 yellow
 3 Steve 1 green
 4 John 4 blue