

SYSTEMICO

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FORWARD LOOK

System Architecture Abstractions

January 26, 2006
Mr. Ray Jorgensen

Kirkwood Training and Outreach Services Center in Cedar Rapids, IA

Event Details
www.incose.org/heartld

Please RSVP to John Povacz
(jfpovacz@RockwellCollins.com) in order to have enough food for everyone.

Engineer's Week

February 18, 19, and 25, 2006

The Heartland Chapter will be participating with an activity table for kids at:

Coralville Children's Museum (Feb. 18, 10 am – 2 pm)

Cedar Rapids' Lindale Mall (Feb. 19, 12 pm – 3 pm)

Cedar Rapids' Science Station (Feb. 25, 10 am – 2 pm)

Volunteers to man the tables are needed, please contact John Povacz (jfpovacz@RockwellCollins.com) if YOU can help.

How to Manage Chaos

March 23, 2006
Mr. Redge Bartholomew

Kirkwood Training and Outreach Services Center in Cedar Rapids, IA

President's Message – Looking for ways to better serve the systems engineering community.

As a new Board of Directors is organized, and goals and objectives are being drawn, I'd like to take the opportunity to thank our membership, all of you, for your continued support of the INCOSE Heartland Chapter.

By being INCOSE members we have indicated interest and a desire to learn new things about systems engineering. My personal challenge as new chapter president is to find ways in which belonging to the Heartland chapter can better serve you to achieve your goals in systems engineering.

I ask for your help in finding out what kinds of activities, topics and seminars you would like our chapter to sponsor. Please fill the attached survey form and mail it to INCOSE Heartland (P.O. Box 10012, Cedar Rapids, IA 52410-0012) or email me with your answers (JRBuenfi@RockwellCollins.com).

Hopefully, by expressing your suggestions and ideas the newly elected Board of Directors can help make the Heartland Chapter an instrument to further develop our skills in systems engineering, find colleagues with similar interests, and also, why not, have a good time!

A new year has just begun; let's make the best of it.

Best regards,



Jorge Buenfil
President

New Chapter Officers

As past president, let me be the first to introduce and welcome our NEW 2006 & 2007 Heartland Chapter Board of Directors.

As these are two year terms, please do not hesitate to share your thoughts, ideas, or suggestions with them on how we as a chapter can continue to foster the definition, understanding, and practice of world class systems engineering in industry, academia, and government.

Thank you to our Heartland election committee for their dedication and all their hard work.

2006 & 2007 Executive Committee

President – Jorge Buenfil
Vice-President/ President Elect - Greg Johnson
Secretary – Tony Thompson
Treasurer – Ray Jorgensen
Program Director – John Povacz

Respectfully yours,



Tony Thompson
Past President 2004 & 2005

January Presentation: System Architecture Abstractions

Architectural constructs provide the basis for effective system design. A well conceived architecture also provides a foundation for a product definition that can be effectively adapted and reused across many different project instantiations. What makes up a complete system architecture? Is one block diagram illustrating the arrangement of physical components "the architecture"? Or, are there other dimensions of a system architecture that are needed to complete the picture?

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2006-2007
Board of Directors

President

Jorge Buenfil
Rockwell Collins, Inc.
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Phone: 319-295-9326

Vice President

Greg Johnson
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Treasurer

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Secretary

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Phone: 319-295-9504

MEMBERSHIP SURVEY

- Reason for joining INCOSE (check all that apply):

- Networking
- Professional development
- Chapter meetings
- Collaborate with Experts and Practitioners
- Publications (INSIGHT, Systems Engineering)
- Events (symposium, workshop, etc.)
- Other: _____

- Areas of interest (check all that apply):

- Requirements
- Analysis
- Design
- Test
- Certification
- Other: _____

- Please rate the frequency of visits to the chapter's website:

- Never Rarely Once a month Once a week Several times a week

- Please rate the usefulness of the chapter's website:

- Poor Adequate Good Excellent

- Please rate the usefulness of the chapter's newsletter:

- Poor Adequate Good Excellent

- Suggest a topic for a presentation:

Topic: _____

Presenter: _____

Things you would like to see MORE of at INCOSE:

Things you would like to see LESS of at INCOSE:

General comments:

Q: How many engineers does it take to change a light bulb?

A1: None. They are all too busy trying to design the perfect light bulb.

A2: Only the one with the instruction manual.

A3: Five. One to design a nuclear-powered light bulb that never needs changing, one to figure out how to power the rest of the USA using that nuked light bulb, two to install it, and one to write the computer program that controls the wall switch.

A4: None. "According to mv calculations. the problem doesn't exist."



(Continued from first page)

This presentation explores some concepts of the "complete system architecture." Multi-dimensional views of architecting are examined to provide insight into what makes up a system architecture.

Don't miss this presentation by Ray Jorgensen, Rockwell Collins Principal Systems Engineer.

For details of this event see: <http://www.incose.org/heartld/>

Bio: Mr. Raymond W. Jorgensen is an avionic systems engineer working on Flight Deck applications that are used across a diverse community of aerospace customers. He has been working toward an integrated system engineering and development environment that enables product family engineering and reuse of intellectual property across many different projects. He has been actively involved in system engineering process improvement for many years. Mr. Jorgensen actively works in requirements analysis and design for flight management and flight display system integration for Rockwell Collins, Inc. He also provides consultation services to organizations wishing to apply product family engineering discipline in their engineering development process. He has been involved in systems engineering activities for 18 years, applying his skills towards continual systems engineering process improvement and project leadership. He received a B.S. in Electrical Engineering from Michigan Technological University, a Master of Systems Engineering from Iowa State University, and is currently working toward a PhD in Industrial Systems Engineering from Iowa State.

Book Review Section

Starting this year we would like to include a section in the Newsletter to share a member's impression of a systems engineering book. Just to get the ball rolling, I'll start by reviewing one of my favorite SE books.

Systems Engineering and Analysis, 3rd edition, by B. Blanchard and W. Fabrycky. Prentice Hall 1998.

This book presents a good introduction to Systems Engineering and covers the main tasks a systems engineer has to perform during the lifecycle of a product, from conceptual system design to system test and evaluation. There is a good section on different considerations to be taken during the design phase, in particular (reliability, maintainability, usability/human factors, serviceability, produceability, disposability, and affordability). I used this text as part of my curricula for a masters in systems engineering with Iowa State University, and it has served me well as a reference for my work. I highly recommend it, even though it is not a very recent book. The concepts it contains are not likely to change much in the foreseeable future.

Review by Jorge Buenfil.



Systems Engineering Handbook Overview & Certification Seminar

The International Council on Systems Engineering (INCOSE) established its Professional Certification Program to provide a formal method for recognizing the knowledge and experience of systems engineers. This baseline recognition is recognized as a "Certified Systems Engineering Professional" (CSEP) and is valid for 3 years from the date of award and renewable every three years thereafter.

DATE: 2-Day Seminar: March 16-17, 2006 (Reservations by Monday, February 27, 2006, no exceptions, please)

TIME: 8:00 AM to 5:00 PM; Registration begins at 7:30 AM

LOCATION: Lockheed Martin Simulation, Training & Support Facility (Main Auditorium)
12506 Lake Underhill Road, Orlando, FL 32825 (407) 306-1000

QUESTIONS: Please call Jack W. Baumgardner at: 407-380-4836 or email at:
jbaumgardner@adelphia.net.

FEES: Seminar fee for participants is \$40 for members and \$75 for non-members. Make checks payable to "INCOSE-Orlando". Acceptable forms of payment are personal checks, bank drafts, and money orders. Credit cards payments accepted through on-line payment services.