

September 2011 Edition

Back Issues • Forward to Friend • Print



September is a BUSY month for our chapter! Here's what's happening:

- -- Election of Next Years Board of Directors
- -- Second Annual Maryland CSEP Gala on Sept 7th
- -- MBSE Tutorial on Sept 17th
- -- Agile SE lecture on Sept 21st

Your Chapter is thriving. Attendance has doubled since last year. There is more diversity in programs. Our own experts tell us about the exciting new field of Model Based Systems Engineering (MBSE). Vitech is giving us a tutorial on practical aspects of MBSE implementation. The Deputy Assistant Secretary of Defense for Systems Engineering tells us about trends at the DoD level. We mounted a panel on systems engineering certification. We see applications in clean energy, software applications, and the unified profile. We are looking forward to a joint meeting with PMI, a talk on agile systems engineering, and some interesting ideas about partitioning in systems architecture.

There is a lot more to talk about: webinars, workshops, conferences, working groups, publications, and handbooks, but the focus here is elections. If you volunteered to run for office, you can now present your views to the membership. As a voting member you can select the candidates that share your goals and know how to make those goals real. This is your opportunity to guide the chapter.

Vote early and often (just a joke). Vote! Vote!!! Vote!!!!

~~ John Lewis, INCOSE CC President

Tutorial - Saturday, 17 September 2011 (8:00 AM â€" Noon) **Practical Concepts for Model Based Systems Engineering**

Presented by: Zane Scott, Vitech Corporation



Presentation: The classic systems engineering domains (Requirements, Behavior, Architecture and Testing) are all typically treated as separate and are managed separately. This course discusses an approach to system design and improvement that is more agile than the traditional plan driven methods and, at the same time, maintains the disciplined system view avoiding the pitfalls of component engineering.

Location: Applied Physics Laboratory, Johns Hopkins University; 11100 Johns Hopkins Rd Laurel MD 20723 (Kossiakoff Center)

Only \$20 - for the light continental breakfast and a contribution to the James E. Long Memorial **Fund**

>>Download the Meeting Flyer Here<<

Reservations: Please use our >> Registration Page <<

In Vol.2 Issue 09

- Next Tutorial
- Next Dinner Meeting
- Presidents Corner
- Announcements
- Feature: Style vs Substance?
- Last Month's Meeting

| September 2011 | | | | | | | |
|----------------|----|----|----|--------------|----|----|----|
| | S | M | Т | \mathbf{W} | Т | F | S |
| | | | | | 1 | 2 | 3 |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 |

25 26 27 28 29 30

This is the monthly newsletter for INCOSE Chesapeake, a local chapter of INCOSE International. We are a not-for-profit organization dedicated to providing a forum for professionals practicing the art and science of Systems Engineering in the Northern & Central Maryland & Southern Pennsylvania area.



The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our Programs Director, Mr. Donald York, if you would like the opportunity to speak or can recommend someone.

Dinner Meeting - Wednesday 21 September 2011

Agile Systems Engineering Dr. Suzette Johnson; PMP, CSP, Northrop Grumman Agile CoP



Presentation: Many organizations and programs are embracing more agile and adaptive practices to better address increasing changing requirements and complexity of software intensive systems. Environments facing a high rate of requirements volatility, changing mission needs, and the desire to take advantage of the latest technological advancements require systems engineering practices that can adapt to and manage these changing needs. Systems engineering

practices are critical for the successful development and delivery of capabilities to our users. This presentation builds on the Agile Development Approach defined within the INCOSE handbook and takes a step deeper as to how the Agile framework and major systems engineering practices can work together.

Location: Applied Physics Laboratory, Johns Hopkins University; 11100 Johns Hopkins Rd Laurel MD 20723 (Main Entrance - Lobby 1)

Meal: Curried Chicken Served over Basmati Rice Fresh vegetable of the day, rolls and butter, dessert, including a small Fruit Plate, coffee, iced tea.

>>Download the Meeting Flyer Here<<

Reservations: Please use our >> Registration Page <<

The purpose of the Chesapeake Chapter is to foster the definition, understanding, and practice of world class systems engineering in industry, academia, and government. In light of that goal, every month at our dinner meeting we have a drawing for the latest in Systems Engineering literature. So come on out for a chance to win.

September's door prize is: The Art of Agile Development

By James Shore

Return to top.



Presidents Corner

The Year of the ESEP

Celebrating INCOSE Certification holders



For many of us, the last week of August is the last week of vacation. Right now -- August 22, 2011 -- I am looking out over the dark blue waters off Bar Harbor in Maine. In these waters that means sailboats, workboats, kayaks, and dories. In the nearby Acadia Park that means carriages, horses, bicycles, and hikers. Everywhere it means tourists speaking French and Polish, Japanese, and Canadian (Eh!).

What am I thinking about today? Why SYSTEMS ENGINEERING of course!!! With the upcoming ASEP/CSEP/ESEP Gala in the Engineer's Club on September 7,

certification is in the front of my mind. We all know that certification and standards are pillars of

The Chesapeake Chapter of INCOSE is proud to recognize the following organizations for sponsoring our endeavors to expanding the understanding and appreciation of Systems Engineering in the local area:

Booz | Allen | Hamilton











Mark your Calendars with these upcoming area events:

Wednesday 19 Oct 2011



Architecture Richard Taylor



October 20-21, 2011 Baltimore Convention Center

Systems Engineering practice. Just before I left on vacation Paul Martin and I were talking about CSEP and the SE Handbook. Systems Engineering is faster, cheaper, and better if SE Handbook standards are followed. We all need to read the book, learn the book, and exploit it for competitive advantage every day of our professional careers.

But there is more to Systems Engineering than this handbook... What is this "something else?" Have you heard about evolving architecture? SysML? OOSEM? MBSE? At the CSEP Gala Mr. John Thomas of the INCOSE Intl will be speaking. Also present will be Mr. Stephen P. Welby; Deputy Assistant Secretary of Defense for Systems Engineering, Mr. Steve Sutton of University of Maryland Systems Engineering, and other notables from the Systems Engineering Research Community. These people are knowledgeable and articulate. You need to listen to them and feed your ideas to them.

So who gets to define this "something else?" Who figures it out? Who makes it happen? Who joins the working groups? YOU!!! Depending on your inclination, you can participate in the Board of Directors, webinars, handbooks, study groups, workshops, tutorials, newsletters, web sites, LinkedIN, and conferences. You take the courses or teach them...

Don't you think it's time to get involved?? Send me a note. Let's talk about how you can be part of this vibrant, growing organization.

Regards, John Lewis, CC President, john.lewis@incose.org

Return to top.

Announcements

1) Board of Directors Elections

This year, every vacant position has been filled by multiple candidates. So it's very important that every Chesapeake Chapter member vote for the candidate of their choice. The Bylaws were changed this year so we can have the election by e-mail. Therefore by September 5th you should be receiving an e-mail containing a ballot with all the names of nominees. Before voting please go to the Elections Page and read the candidates biographical information and their position statements. If you do not get a ballot within the next week please contact the head of the Election Committee Chair, George. Anderson@INCOSE.org, 410-206-8285. Here is list of candidates:

President-Elect: Kurt Christensen

Programs: Erik DeVito

William Ewald Will Harrison Alex Pavlak Donald York

Treasurer: David Alldredge Communications: Paul Martin Secretary: Larry Corsa

Membership: Janet Deery Mark Kaczmarek Don Gantzer

Bhanumati Sunkara

Meet the Candidates -->

2) SEY Committee accepting nominations

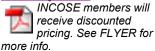
Carol Hutchinson, the chairman of the Evaluation Committee for the chapter's Systems Engineer of the Year (SEY), announces that the committee is accepting nominations for the SEY 2011.

INCOSE has long encouraged formal programs for training systems engineers and professional activities for honing systems engineering skills. The INCOSE Chesapeake Chapter Systems Engineer of the Year (SEY) award complements these existing programs by providing

more complete recognition of the efforts required to function as a systems engineer.

Read about the criteria, due dates, download the nomination forms and the application itself as well as a listing of past winners on: Chesapeake Chapter SEY Webpage.

Baltimore, MD **Design Your Future -Security 2020**



Get Involved with your **Chesapeake Chapter**

Join a Committee! Make a Difference!

Be part of the organization that's promoting Systems Engineering across the globe for the benefit of humanity and the planet!

Communications **Contact: Paul Martin** We need writers, editors, photographers, website and

newsletter maintainers

Programs

Contact: Don York We need help in planning,

arranging, organizing and executing the various Chapter events to include speaker presentations, tutorials, panel discussions, and the holiday party.

Membership **Contact: Bhanu**

Sunkara

We need help in growing our membership by reaching out into the local SE community.

If any of these activities sound interesting to you please contact the Committee Director to find out how you can get involved.

Local SE Training

Preparing for the Certified **Systems Engineering** Professional (CSEP) Exam

Obtaining a CSEP is not easy, but that's what makes it so valuable. You have to demonstrate your real world experience via a lengthy application and three references. Then you need to pass a two-hour, 120-question, multiple-choice exam. The courses listed below will help prepare potential candidates for this

Return to top.

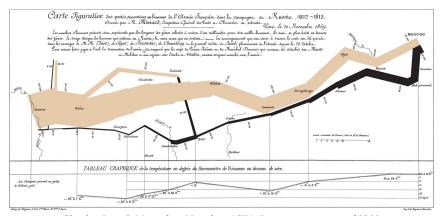
Feature Article

Style vs Substance?

Where's the fight?

By Paul Martin

Every now and then I get an invitation in the mail to partake in a one day seminar for Edward Tufteâ \mathcal{E}^{TM} s â \mathcal{E} œ $\frac{Presentation\ Data\ \&\ Information\ }{\Delta}$ ê Iâ \mathcal{E}^{TM} ve never been able to go but the invitation I receive has a wonderful reproduction of an 1869 information map by Charles Joseph Minard. On one graphic, Minard depicts multiple variables: size of the Napoleon's army, temperature, location, time in months and direction of armyâ \mathcal{E}^{TM} s movement on a map. It really is a well thought out graphic and it inspires me to create better and more informative graphics.



Charles Joseph Minard on Napoleonâ \in TMs Russian campaign of 1812.

What's interesting about Tufte though is his disdain for MS PowerPoint. He's coined the term "Chartjunk" referring to the useless, non-informative elements of PowerPoint charts. His Magnum opus is "PowerPoint is Evil" he wrote for Wired magazine. It really is an insightful article with excellent arguments on the dangers of using PowerPoint incorrectly. However, I have to take issue with this giant in the information design community for using such a provocative title.

After all PowerPoint is just a tool. Of course Tufte is right to point out in his article how badly PowerPoint is used by people. [Note: Comedian Don McMillan has made a career from this very concept. Check out his hilarious video on Life After Death by PowerPoint which just drives the point home all the more.] But misuse of a tool does not make the tool evil. Consider this: When you see a horrible example of building architecture you donâ C^{TM} t blame the hammer. You want to know who designed the ugly thing. And think of the humble knife which can do wonders on a stick of wood in the hands of a great whittler or make a gastronomic delight in the hands of a master chief. Is the knife therefore good? But keep in mind this same knife can also be used by someone to harm another mortally. Then is the knife therefore evil? Of course not! Itâ C^{TM} s just a tool. The people using the tool are the one's doing the good or evil.

And also consider this: Even if Tufte was right about the evilness of PowerPoint (I'm not saying he is) where are we to turn? What alternatives? Perhaps use:

- mind-maps and their tools, or
- <u>Prezi</u> (a very exciting storytelling tool).

As attractive as these solutions may be we have to face the fact that most offices use MS Office as their primary productivity tool. Emphasis on "tool." And I bet if over night everyone started to use Prezi, it wouldn't take long for Tufte to write an article called "Prezi is Evil" because it wouldn't take long for people to misuse it.

As Systems Engineers we're in charge of the "big picture.†We need to "abstract up" the complicated so that non-technical managers can be informed and make proper decisions. We

demanding process by becoming familiar with the INCOSE SE Handbook version 3.2 which is the basis for the examination.

UMBC Training Centers



Free Handbook Tutorial

See our <u>Chapter's Website Education</u>
<u>Page</u> for more information.

Return to top.

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With Connect you can also

deal with the "whole" contextual scenario and sometimes we have no choice but to communicate concepts by using MS PowerPoint. But like any other tool, you need skill and creativity to wield it correctly. I mean as Systems Engineers we're big into "tools" and the SE Handbook talks to using functional block diagrams, Quality Function Deployment, N2 Charts, Trade Studies, modeling, etc. Isn't PowerPoint just another tool within our arsenal for communicating ideas? Learn to use it well. And using Tufte's ideas on communicating complicated data wouldn't hurt.

So I say let style and substance work in harmonious harmony. One does not have to exist at the expense of the other. They can live together. And as Systems Engineers we are charged to come up with creative solutions within cost and schedule, surely we can explain these solutions creatively.

While discussing this issue with our past president, George Anderson, he pointed out, "It really is a Medum vs. the Mission issue. I would suggest that Powerpoint is a communication medium and our most important mission is to convey information or transfer knowledge. At the same time we can still be entertaining, selling, influencing and clarifying, to name a few options." Well said George.

By the way, I do have to side with Tufte when he criticized NASA engineers in their use of PowerPoint, leading up to the Columbia disaster. You may have substance behind the style but don't bury the message under glitz and political necessity. As Systems Engineers we should always be striving to convey the truth.

Return to top.

Did You Miss Last Month?

Movie: The Deming of America



We go to experiance this rarely seen documentary of Priscilla Petty interviewing the legendary Dr. W. Edwards Deming. The amazing part was Dr. Deming's insistence in taking into account the whole SYSTEM! That boundaries are all inclusive -- from the customer, the workers and their families, and even the companies leadership. His goal -- "Optimize the System! Everybody gains, no losers"

This meeting was well attended with 37 for dinner and 50 for the documentary. Never underestimate the power of

free pizza. Several business items were attendeed to before the movie. Including the voting of a Bylaw change. (Which passed by the way.) It was a very successful meeting and enjoyed by all who attended. Please join us next month.

Read More Details and see More Photos

Return to top.

download the July 2011 Issue of INSIGHT Systems of Systems and Self-Organizing Security



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Return to top.

This Newsletter is to serve our members and is open to all for contributions. Do you have an interesting idea for an article?

A review of a new book related to engineering? Let us know. We'd love to hear about. It may wind up in a future issue of our Newsletter.

Return to top.

Welcome to our Newest Chapter Members

- Paul Schmitt Volvo
- Matt Jeffries
- Sierra S Williams

We welcome our latest new members. We look forward to seeing you at our meetings and tutorials.

Return to top.



Keep up with the latest news and events. Find out about our new Board of Directors. Explore our extensive library of previous lectures from our Monthly Dinner Meetings. Learn of the Benefits of Joining INCOSE. Check out Systems Engineering education in the local area. All this and more awaits you at our INCOSE Chesapeake Chapter Website.

For any comments or suggestions about this newsletter please e-mail our <u>President, John Lewis</u> or our <u>Communications Officer, Paul Martin</u>. We value your feedback.

Board of Director Officers, 2011

- President: Dr. John Lewis
- Past President: Mr. George Anderson
 President Elect: Gundars Osvalds
- Treasurer: Mr. Glenn Gillaspy
- Secretary: Mr. Bob Berkovits

Directors at Large

- Communications: Mr. Paul Martin - Programs: Mr. Donald York - Membership Committee: Ms. Bhanumati Sunkara

Please use the Forward email link below so we can invite your friends to join our mailing list. Thanks in advance.

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