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Chapter Business



New Officers and Directors for 1998

The 1997 Nominations Committee, consisting of Ken Kepchar, Les Preston, and Derek Bernett announced the results from the recent election of the Midwest Gateway Board of Directors. The winners are:

President-Elect: Carol Wilke

Treasurer: Richard Schwadron

Director: Clint Moor

Director: Dean Bristow

These new board members will join your existing members of John Schrader (Past President), Bob Scheurer (President), Don Hess (Secretary), Owen Carson (Director), and Paul Summers (Director). Out-going board members are Ralph Lambert (Trea-

surer), Carol Wilke (Director), and Dr. Ken Sivier (Director). Thanks for a job well-done!

Chapter Sponsors Workshop on Systems Architecting Advances and Directions

by

Don Hess, Secretary

In late October, the Midwest Gateway Chapter provided the opportunity for 34 members and non-members to learn the latest advances and directions in the art of Systems Architecting. Dr. Mark Maier of the University of Alabama held a significant portion of the Midwest Gateway Chapter spellbound for over six hours as he lectured on the subject at our first chapter-sponsored workshop. Opinion was nearly unanimous that the skill and tools have broad applicability to our new business areas and our system of systems applications.

The event was hosted by the Washington University School of Engineering with a warm welcoming introduction by Dean Byrnes. As a part of his remarks, he extended an invitation for the chapter to return with additional workshops. The hospitality, facility, food and refreshments provided were outstanding.

The focus of Dr. Maier's talk was on how to implement a systems approach for 'unprecedented' new systems. Topics covered included historical examples, definitions, why an independent architect is needed at times to achieve client goals, tools for architecting like heuristics, modeling, ultra-quality, and certification for buildings, manufactured systems, software and communication systems.

For those that could not attend the workshop, he left us with this definition: "Architecting is that part of systems engineering most concerned with purpose determination, concept formulation, structuring and certification for use."

Dr. Maier commented after the meeting that it "was a pleasure to share his experiences with our mem-

bership.” Other comments by the audience included those such as “It was well worth the time of attending all day on a Saturday.”

To cap off the event, the chapter welcomed seven new members.

December Meeting Featured Complementary Buffet and Intriguing Speaker

by
Don Hess, Secretary

Over 30 people attended another fantastic food spread presented by Yacovelli’s Restaurant and sponsored entirely by your Midwest Gateway Chapter. With the obligatory social session before hand and the thoughts of spring generated by Dr. Terry Bahill’s presentation on “Engineering the Sport of Baseball,” the setting formed a great kickoff for everyone’s holiday season!!!

A highlight was the return of our outgoing President, John Schrader, after his neck surgery. He looked healthy and was certainly filled with the joy of the season (or maybe it was the thought of graduating to the position of “Past Chairman”).

The election results were announced by the election committee (Ken Kepchar). Afterward, the Chapter handed out plaques to current board members and committee chairpersons. They certainly felt appreciated after the strong round of applause and good cheer expressed by the attendees. Even the active recruiting for new committee chairpersons and members by our incoming President, Bob Scheurer, could not dampen the atmosphere!

Dr. Bahill’s development process review and message were particularly informative. They demonstrated the success which can be achieved if System Engineers take the time to define requirements up-front and model the system prior to building the product.

November General Membership Meeting

by
Jeff James

A general membership meeting of the Midwest Gateway Council of INCOSE was held November 5, 1997 at Boeing St. Louis. Nearly 20 member and guests were in attendance. Bob Scheurer, President-Elect, opened the meeting by leading discussion on the 97 Symposium held in Los Angeles. Remarks were made regarding the tour of JPL, leadership, and international

expansion of the organization. Next, discussions took place on the workshop which featured Dr. Maier on Systems Architecting. The overall response to the workshop was favorable, however it was felt more practical examples would better reinforce the ideas of systems architecting.

Bill Schoening, International President-Elect, presented “INCOSE at age 7”. The presentation emphasized countering the slowing membership growth rate and the desire for INCOSE to have global influence. Next, Ken Kepchar presented his paper on “Balancing Requirements and the Product: A Process and Tools Case Study”. The paper examines an improved process using integrated tools on the then-McDonnell Douglas F/A-18E/F program for producing higher quality aircraft while still meeting exacting specifications.

Next, Ken Kepchar, the nominations committee chairman, presented the candidate lists for the election of officers. Bob Scheurer, closed the meeting with his vision as incoming president: “To make the Midwest Gateway Chapter of INCOSE a leading source of systems engineering expertise in the St. Louis Area, in the Midwest, and across the country.”

Membership Questionnaire Included with this Newsletter

Included with this newsletter is a survey which your Board of Directors has designed in order to understand how to better serve you. Please take the few moments to complete and return the questionnaire at your earliest convenience prior to January 31, 1998. Results will be used to design better meetings and member services.

Did You Hear the One About...

A software engineer went to the shooting range with his new rifle, fired six rounds, and missed the paper target with all of them. He then put his finger over the end of the barrel and pulled the trigger. Of course the end of his finger was blown off but, undaunted he shouted toward the target area, “Everything is working fine here, the problem must be at your end.”

President's Corner

by M. John Schrader, President

It has been a pleasure serving the chapter as its President this past year. One of my goals this past year was to increase the number of events for our chapter membership. I believe we did that – the events are reviewed in other articles in this newsletter. I know that your new President, Bob Scheurer plans to make 1998 even a better year relative to the program that the chapter will be providing for its membership. You can help us do that by responding to the survey that is included with this newsletter. Your response will help determine your needs (system requirements) and help us tailor our program to those needs (system design).

Another of my goals at the beginning of the year was to increase membership participation in the activities of the chapter. My expectations were not met. I believe that our new President is working very hard to do a much better job than I did. He has established a number of committees and has some people agreeing to work on those committees. If you would like to help on the Membership or Ways & Means committees, please call anyone on the board and let them know. The board is also planning to have some special events, such as the tutorial that we had this past year. We really need your help on a task force(s) to facilitate/coordinate those events. Although fairly obvious, the more member involvement we get, the better our program can be.

Some of you may know that I was absent part of the year on medical leave. I want to take this opportunity to thank the Board of Directors for their efforts during my recovery time. In particular, I want to thank Bob Scheurer for filling in for me and especially for making sure that the tutorial held in October was as successful as it was.

I hope that all of you are as excited about the future of the chapter as I am. I'm sure that 1998 will be a banner year for us. Our new board is very enthusiastic about providing you with meaningful membership activities just let us know what ideas you have at any time during the year. Again I'd like to remind you that the survey included with this newsletter is a means for letting us know how we can be most helpful to you.

Best Wishes for the Holidays to all of you from your President and the Midwest Gateway Chapter Board of Directors. See you all in 1998!

Feature Article

How Do Systems Engineers Communicate?

From the Internet

There are those among us that believe "Requirements" are The Communications Medium and a large subset of them who believe that a "Requirements Document" is it. Personally, I believe in heresy, namely, that a written requirements document is almost "useless." (1) Engineers generally are poor readers and even worse writers. (2) It is impossible to write everything down. And (3) documents are hard to keep up to date.

An often cited reason that projects fail is "poor requirements", therefore great effort is made to create more detailed requirements. But I suspect that the real reason is "communications breakdown" and more detailed requirements are not the answer...in fact, they often hurt more than they help. (The arguments are similar to those for and against a formal SE Process.)

What needs to be communicated is system functionality. A requirement needs to be documented only to the level of detail necessary to properly communicate that functionality between the system and component engineers. If the two engineers know each other, well, the requirement can be expressed orally and sealed with a handshake. That's the old fashioned way. Written requirements are necessary when the communications bandwidth is insufficient to be able to reach agreement with a handshake (and alas, because of lawyers, accountants, and "telephone sanitizers" :-o).

[shouting...]

What we, systems engineers, need to do is to increase our communications bandwidth, not write more detailed requirements!

Requirements documents attempt to cover the spectrum with many narrow band lines, each line being a single requirement. Some other things that are part of the bandwidth currently available to us include: face-to-face meetings, telephone calls, staff meetings, project reviews, shared meals, letters/memos, e-mail, you name it.... As we get more sophisticated in their use, add models, simulations, videos, and virtual reality.

If you would like to contribute to the Newsletter with a

- *Personal Commentary*
- *Feature Article*
- *Book Review*
- *Cartoon*

or any other article, contact the editor listed on the front cover of this newsletter. Your comments and suggestions on any Systems Engineering topic are most welcome!

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