**INCOSE Spotlight on Lou Wheatcraft**Interviewed by Sandy Young, [info@incose.org](mailto:info@incose.org)

Name: Louis (Lou) Wheatcraft

Title: Senior Product Manager  
Organization: Seilevel/Requirements Experts

Place of Birth: Aitkin, Minnesota, USA

Current Residence: Clear Lake, Houston, Texas, USA

Domain: Aerospace and medical device development

Studied in college: Electrical engineering, computer information systems, environmental management, and studies of the future

Year joined INCOSE: 2000

Roles in INCOSE: Chair of the Requirements Working Group, member of the Texas Gulf Coast Chapter.

Years in systems engineering: 45 years – I was practicing systems engineering before I heard of systems engineering as a discipline.

1. **How would you describe yourself in three words?**

**Jack-of-all-trades, effective, and practical.**

1. **What are you working on today?**

I’m working on information-based requirement development and management. This approach is based on the premise that well-formed requirements don’t come out of thin air. Rather, there is a lot of work and analysis that must be done first that results in an underlying set of data and information from which stakeholder needs are derived and transformed into system requirements. This data and information represent the beginning of a model of the system under development.

I am submitting a paper for the INCOSE International Symposium 2019 that goes into more detail on this topic. The Requirements Working Group will also be addressing this at the Symposium.

1. **What is the Requirements Working Group working on now?**

We are working on a white paper, “Integrated Data as a Foundation of Systems Engineering,” as well as “Guide to Developing and Managing Requirements.” The Requirements Working Group is producing the integrated data white paper from the perspective that requirements, along with all work products (models, designs, documents, diagrams, drawings, etc.) generated during the performance of system life cycle process activities, are represented by underlying sets of data and information. I am currently incorporating the last round of review comments into the white paper and hope to have it available in the INCOSE Store in time for the INCOSE International Workshop 2019.

The “Guide to Developing and Managing Requirements” is meant to be a companion guide to the existing “Guide To Writing Requirements.” While the focus of the “Guide to Writing Requirements” is on the characteristics of well-formed requirements and the rules that result in those characteristics, the “Guide to Developing and Managing Requirements” will focus on activities, approaches, and tools used to develop and manage requirements.

1. **What tool or method is most helpful to you as a systems engineer?**

What’s most helpful to me is focusing on stakeholder needs and resulting requirements. If the system being developed does not meet the stakeholder needs and resulting requirements, the system is a failure!

1. **What are your thoughts about systems engineering tied to product development?**

Systems engineering is critical to developing and delivering winning products. Yet, I am amazed at how many organizations don’t include basic systems engineering concepts in their product development processes – especially well-formed requirements.

1. **What is your favorite saying or quote?**

I have two: 1) “Requirements are the common thread that ties all system lifecycle activities together.” And, 2) “Writing requirements is not an exercise in writing; it is an exercise in engineering. Every requirement is an engineering decision as to what the system must do or a quality the system must have in order to satisfy stakeholder needs.”

1. **What do you like to do outside of work?**

I regularly volunteer at the Armand Bayou Nature Center located in the Houston, Texas area, one of the largest urban wilderness preserves in the U.S.