INCOSE CHICAGOLAND

Defining Needs and Requirements for Resilient Systems
Lou Wheatcraft- CoChair of RWG

Abstract

Resilience is a fairly new topic in the SE world. As such, few understand the concept and need to address resilience when defining needs and requirements. As a result, most sets of needs and requirements are incomplete in that they do not include specific needs and requirements concerning resilience and loss scenarios when the system is faced with some type of adversity and associated stressors. To be complete, depending on the system and possible adversities, there needs to be needs and requirements included concerning avoiding, withstanding, and recovering from adversity.

The first step is understanding the need to address resilience, then accessing the level of resilience the planned system has currently; doing the analysis concerning what additional needs and requirements need to be added to the sets of needs and requirements that address the most likely adversities that could cause loss of mission or loss of an asset; defining concepts concerning avoidance, withstanding, and recovering from those adversities; defining the needed system capabilities in order for the system to avoid, withstand, and recover from those adversities; get management agreement, budget, and resources needed to implement those capabilities; and then define both design controls (requirements and developers), system design input requirements that will define what the system must do to implement the needed capabilities, as well as operational requirements concerning the users of the system that contribute to the organization and system to avoid, withstand, and recover from adversity and associated stressors.

This presentation addresses the above in practical terms such that the attendees can immediacy apply concepts and do the activities that will help them develop resilient systems.

EVENT DETAILS

LOCATION

1501 E. Woodfield Rd.
Suite 300E
Schaumburg, IL 60173
3rd Floor Conference Room
and
Online through **Zoom**

AGENDA

6:00 - 6:30 CT
Networking
6:30 - 7:00 PM CT
Announcements
7:00 - 8:45 PM CT **Extended Session**
Feature Presentation and Q&A

Actalent

INCOSE

Defining Needs and Requirements for Resilient Systems

About Lou Wheatcraft

Lou Wheatcraft is a senior consultant and managing member of Wheatland Consulting, LLC. Lou is an international expert in systems engineering with a focus on needs and requirements development, management, verification, and validation across the system lifecycle. Lou's goal is to help systems engineers practice better systems engineering from a needs and requirements perspective across all lifecycle stages of system/product development. Getting the needs and requirements right upfront is key to a successful project. Lou has over 50 years' experience in systems engineering, including 22 years in the United States Air Force. Lou has taught over 200 requirement seminars over the last 25 years. Lou supports clients from government and industries involved in developing and managing systems and products including aerospace, defense, medical devices, consumer goods, transportation, and energy. Lou is very active in the INCOSE and is the current co-chair of the RWG. Lou is a principal author of several RWG manuals and guides including the Needs and Requirements Manual (NRM), Guide to Needs and Requirements GtNR), Guide to Verification and Validation (GtVV), and newly released version 4 of the Guide to Writing Requirements (GtWR).Lou has a BS degree in Electrical Engineering from Oklahoma State University; an MA degree in Computer Information Systems; an MS degree in Environmental Management; and has completed the course work for an MS degree in Studies of the Future from the University of Houston – Clear Lake.

For more information

🌐 https://chicagoland.incose.org/ OR https://incosechicagoland.com

in https://www.linkedin.com/company/incose-chicagoland/