Writing Good Requirements

Fall Tutorial
- Friday, 16 November 2018 –

Abstract:

Could you distinguish a good requirement from a bad one and instruct others on that distinction? More importantly, can your project team and stakeholders do the same? If the answer is no (or even a hesitant yes) then this class will provide the foundational skills required to write good (dare we say excellent!) requirements, ensuring clear and concise communication between the business and project teams.

Writing requirements and delivering a well-written set of requirements that is clear, correct, concise and complete is hard work. This work is often made harder because most people do not know how to write requirements. The fact that the most common reasons for project and product failures are problems with requirements supports this assessment.

In this 1-day Writing Good Requirements seminar, you will learn what you need to do before you write requirements, best practices for writing good functional and non-functional requirements, how to recognize defective requirements and the techniques that can be applied and understand the value of capturing attributes to improve the overall quality and understanding of your requirements. Team exercises provide the attendees practice at writing requirements, critiquing their own work, and correcting defective requirements. Discussions and questions and answers help attendees to clarify levels of requirements and how requirements are allocated and traced at every level of the project.

Presenter:

Lou Wheatcraft is a senior product manager for Requirements Experts (RE)/ Seilevel, who educates organizations on the importance of developing and writing well-formed requirements and helps them implement Requirement Development and Management (RD&M) processes based on industry best practices. Lou has taught over 190 requirement seminars over the last 18years. Lou works with both government and industry clients. Lou has spoken at Project Management Institute (PMI) chapter meetings, INCOSE conferences and chapter meetings. Lou has had published and presented a multitude of papers on requirement RD&M topics for NASA's PM Challenge, INCOSE, INCOSE INSIGHT Magazine, and Crosstalk Magazine. Lou is a member of INCOSE, Chair of the INCOSE Requirements Working Group, a member of the Project Management Institute (PMI), the Software Engineering Institute (SEI), the World Futures Society, and the National Honor Society of Pi Alpha Alpha. Lou has a BS degree in Electrical Engineering from Oklahoma State University, an MA degree in Computer Information Systems from the University of Houston – Clear Lake, an MS degree in Environmental Management from the University of Houston – Clear Lake and has completed the course work for an MS degree in Studies of the Future from the University of Houston – Clear Lake.   Lou is the primary contributor to RE's blog on requirements best practices. The blog can be assessed at: http://www.reqexperts.com/blog

During this seminar you will learn:

- The role requirements have in the overall systems engineering of products
- Why text-based requirements are needed
- To write requirements based on industry best practices as defined in the INCOSE Guide for Writing Requirements and apply various techniques to avoid writing bad requirements
- To quickly identify and fix bad requirements
- To use rationale to clarify each requirement so that it is understood just one way and you have a history of why the requirement exists for purposes of change impact assessments, maintenance and verification
- To use attributes such as verification method, allocation, and traceability to improve your requirement set
- To write different types of functional and non-functional requirements
- To verify and Validate your requirements as they are written to avoid preparing and submitting a bad requirement specification for review
- What is involved in making the baseline discussion for your requirements set.

Course Outline: Writing Good Requirements

Systems Engineering

- What is a system? System of Interest? Enabling Systems?
- Levels
- Systems Engineering
- Why Requirements?

Writing Good Requirements

- Why text-based requirements?
- What is a Requirement?
- Characteristics of well-formed requirement statements
- Characteristics of well-formed sets of requirements
- Documenting Requirements
- Categories of Requirements
- Writing Interface Requirements vs defining interfaces
- Documenting Requirement Attributes
- Baselining Requirements – Requirement Verification & Validation
- Managing Change
- Wrap up

Intended Audience

This training is critical for those responsible for eliciting, writing and reviewing requirements. Representatives of all the product's stakeholders will be involved in developing, reviewing, and approving requirements, and this training will benefit them and your requirement writing and review effort. DO NOT let anyone review your requirements without this training or without at least providing them your standards for good requirements.

System Engineers (SE)	Requirement Engineers (RE)	Business Analysts (BA)
Subject Matter Experts (SME)	Program and Project Managers (PM)	Developers
Testers	Independent verification and validation (IVV) team	Those writing software requirements
Those writing business requirements	Those writing system requirements	Customers
Users	Marketing	Others needing the skills to write requirements

WE LOOK FORWARD TO SEEING YOU AT THIS EXCITING TUTORIAL!