

Obstacles to the Flow of Requirements Verification

Alan B. Marchant*

Utah State University, 1695 Innovation Parkway, North Logan, UT 84341

Received 12 October 2007; Revised 17 March 2008; Accepted 25 September 2008, after one or more revisions
Published online 12 December 2008 in Wiley InterScience (www.interscience.wiley.com)
DOI 10.1002/sys.20127

ABSTRACT

The process of developing technical requirements and subsequently documenting adherence to those requirements is a primary task for Systems Engineering. Disciplined validation and verification of requirements helps assure that the product system will be successful as designed and gives the program a fighting chance to achieve its goals. But commitment and adherence to a process of thorough validation and verification is not always sufficient. Unforeseen technical constraints and logical inconsistencies often spring up at the last minute to block requirements verification for complex systems. By recognizing weaknesses in the structure and definition of requirements that are likely to interfere with the verification flow, the systems engineer can create a more manageable hierarchy of requirements and more effectively redirect the verification process when difficulties arise. © 2008 Wiley Periodicals, Inc. *Syst Eng* 13: 1–13, 2010

Key words: verification; validation; requirements; flowdown; specification; hierarchy; allocation; linkage