

Daily Challenges in Requirements Engineering

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Abstract

The future of military combat is being built on the foundation of interoperability; a 180-degree shift from stand-alone systems. As a result, these systems are more complex, require a greater degree of interface control, and more difficult to engineer. Systems Engineering used to accurately define the requirements, policies, and procedures early in the program lifecycle is the means to cope with this complexity and as a result Requirements Engineering is becoming an increasingly more important aspect on every program.

The importance of requirements engineering is unquestionable. With such importance one would expect that requirements engineering is a discipline that is well understood, has been studied documented, and actually taught in today's universities. This isn't the case and in-fact most universities are just beginning to introduce this engineering discipline as part of their systems

engineering curriculums. The fact that no standard formulas, processes, and methods exist for conducting this engineering discipline, we as an industry are faced with many challenges to overcome and deal with. This paper will present the many challenges that we are faced with in a daily basis. Challenges such as Requirements Analysis, Traceability, Change Management, System of Systems Interoperability, Metrics, Geographically Dispersed Engineering teams are just some of the many we must deal with. As requirements engineers our paper will provide from a practitioners perspective real life examples of many of these challenges. We will provide descriptions as to how we have personally solved some of these problems and will provide examples when they are supportive of the ideas we are trying to express. Finally in our paper we will wrap things up with a conclusion and some recommendations with the hopes of helping others faces with similar problems