

GSAW 2013 Tutorial D:

Agile Software Development in Defense Acquisition — A Mission Assurance Perspective

Length: Half day

Overview:

More and more contractors are proposing the use of agile software development in our acquisition programs. The term “agile development” was essentially coined in 2001 by the founding members of the Agile Alliance with the release of the Agile Manifesto and its tenets are hotly debated ever since. The original members of the alliance were software developers, software managers and thought leaders who all had their own approaches to software development, but believed that they could create a common platform to voice their concerns regarding traditional software development methods. During the meeting the members all acted as “surrogates” for their customers, i.e., no actual government or commercial customers were present.

The manifesto is based on four value statements, but all of these statements are representing the perceived values of a software developer only. In this tutorial we will take a strong mission assurance approach and evaluate these agile values and selected, key agile practices from a defense acquisition customer’s perspective.

The objective of the tutorial is not to come up with a single conclusion, i.e., stating that agile development is appropriate or not for defense acquisition. Together with the benefits we will elaborate on the major risks of adoption and provide tangible guidance on making the right decision.

Instructor: Peter Hantos, The Aerospace Corporation

Biography:

Dr. Peter Hantos is currently Senior Engineering Specialist in the Software Acquisition and Process Department of the Software Engineering Subdivision at The Aerospace Corporation. He has over 35 years of experience as manager, software engineer, professor, and researcher. Prior to joining Aerospace, as Principal Scientist at the Xerox Corporate Engineering Center, he developed corporatewide engineering processes for software-intensive systems. Earlier, as Department Manager, he directed all aspects of quality for several laser-printer product lines. Dr. Hantos has authored over 60 technical publications and presentations. He holds MS and PhD degrees in Electrical Engineering from the Technical University of Budapest, Budapest, Hungary.

What Participants Should Expect to Learn:

- Familiarize themselves with the foundations of agile software development
- Learn the details of selected, key agile practices
- Develop a critical, mission assurance-focused perspective on agile development

Who Should Attend:

The tutorial is introductory in nature, and targeting a broad audience of people in both acquisition and product development environments. There are no formal, topical pre-requisites, just a basic familiarity with the system and software development process; all concepts introduced are discussed methodically, in a bottom-up fashion, in detail. Program office personnel, project managers, executives, process architects, and software engineers can all benefit from the tutorial with, of course, amplifications on slightly different areas of the material.