SPACE SYSTEMS SYMPOSIUM (D1)
Lessons Learned in Space Systems (5)

Author: Mr. David Seal
National Aeronautics and Space Administration (NASA), Jet Propulsion Laboratory, United States,
seal@jpl.nasa.gov

MERIT FUNCTIONS AND SYSML IN SYSTEMS ENGINEERING AT NASA'S JET PROPULSION LABORATORY

Abstract

The innovative application of several technologies as aids in Systems Engineering - SysML and science and engineering merit functions - has met with success in some key areas of robotic space missions at the Jet Propulsion Laboratory. The Mars Science Laboratory, Kepler, and Soil Moisture Active/Passive projects in particular have brought these tools to bear to some of the toughest problems and most intractable decision-making processes. This paper will review the specific approaches used to date and JPL's path forward in deploying them in its future systems engineering endeavors.