

AGENDA - DAY 1 - WEDNESDAY NOVEMBER 4TH

- 8:00am Refreshments on Cahill patio
- 8:45am WELCOME: Robert Vargo, Manager, Flight Software And Data Systems Section, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 9:00am KEYNOTE: Reliable Software Systems Design, Dr. Gerard Holzmann, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 10:00am Managing For Software Reliability, Steven Stolper, Software Consultant
- 10:30am BREAK
- 11:00am Software Verification with a Model Checker, Ed Gamble and Gerard Holzmann, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 12:00pm LUNCH
- 1:00pm Relationship To Systems Engineering, Mary Ann Lapham and Dr. Charles (Bud) Hammons, Carnegie Mellon University/Software Engineering Institute
- 1:30pm V&V for Model-Based Software Development, Karen Gundy-Burlet, Ph.D., NASA-Ames Research Center
- 2:00pm REATSS - NASA IV&V using Simulation, Chris Hall, Virtutech, Inc
- 2:30pm System Architecture Specification And Exploration Using a Fast Functional Simulator, Chad Margolin, Virtutech
- 4:00pm EARLY DINNER @ Baxter Lecture Hall Courtyard
- 5:00pm Flight Software Round Table**, Moderated by Ben Cichy, Chief Flight Software Engineer for the Mars Science Laboratory
Panel:
Glenn Reeves, Jet Propulsion Laboratory
Steve Chien, Jet Propulsion Laboratory
Joel Sherill, OAR Corporation
Steve Crago, USC Information Sciences Institute
Michael J. Phillips, Lockheed Martin Space Systems

** Dinner will be paid for by contributions from participants*

***This talk will take place at Baxter Lecture Hall at the California Institute of Technology*

AGENDA - DAY 2 - THURSDAY, NOVEMBER 5TH

- 8:00am Refreshments on Cahill patio
- 9:00am KEYNOTE: Dr. Fiona Harrison, The Nuclear Spectroscopic Telescope Array (NuSTAR)
- 10:00am Cosmically Distributed Components, David Smyth, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 10:30am BREAK
- 10:45am Flight-like Flight S/W Testing Methods, Celina Garcia, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 11:15am Graphical Model-based Software Development at the Space Vehicle Integration Laboratory, Michael J. Phillips, LM Fellow - Software Engineering, Space Vehicle Integration Lab - Chief Engineer, Lockheed Martin Space Systems
- 12:00pm LUNCH
- 1:00pm Coverage Analysis of RTEMS, Joel Sherrill, PhD, Director of Research and Development OAR Corporation
- 1:30pm MER Data Management, David Smyth, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 2:00pm Flash File System for a Smart SSR: Modifying YAFFS for Onboard Usage, David Edell, The Johns Hopkins University Applied Physics Laboratory, Embedded Applications Group
- 2:30pm Flight Software Architecture for use with a Safety-Critical Partitioned Real-Time Operating System, Greg Horvath, *Dan Dvorak*, *Dave Hecox*, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 3:00pm BREAK
- 3:15pm Data-Centric Architecture for Space Systems, Rajive Joshi, RTI
- 3:45pm First-Fault Data Capture, Steven Stolper, Software Consultant
- 4:15pm EARLY DINNER @ Baxter Lecture Hall Courtyard
- 5:00pm Birds-of-a-Feather Session, Dan Dvorak, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California.

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AGENDA - DAY 3 – FRIDAY, NOVEMBER 6TH

- 8:00am WELCOME, Refreshments on Cahill patio
- 9:00am KEYNOTE: Have We Really Lost The Space Acquisition Recipe Or Are We Simply Trying To Go Where No [One] Has Gone Before? Dr. Douglas J. Buettner, The Aerospace Corporation, Major Chad Millette, United States Air Force
- 9:45am Embedding the Power of STK On-Board Space Assets via the On-Board Dynamic Simulation System (ODySSy/STK™), John Cuseo, President - Advanced Solutions, Inc. (Analytical Graphics, Inc. and Advanced Solutions, Inc.)
- 10:15am BREAK
- 10:30am Innovative Spacecraft Bus Architecture, Alvar Saenz-Otero PhD, MIT Space Systems Laboratory
- 11:00am Mission-Critical Space Software For Multi-Core Processors, Steve Crago, Senior Project Leader, USC/ISI
- 11:30am Graphics Processing Unit (GPU) Acceleration of Machine Vision Software for Space Flight Applications, Brent Tweddle, Graduate Research Assistant, MIT Space Systems Laboratory
- 12:00pm LUNCH
- 1:00pm Software Defined Radio (SDR) Architecture and Systems Issues, Kenneth J. Peters, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 1:30pm Effective Integration and Testing of Geographically Distributed Space Systems Using Native Protocols Over IP, Tom Jackson, Greg Menke, James Dailey, Jacob Hageman, Carlos Ugarte, Lester Jackson, Sara Haugh, Eric Lidwa, Jerry Cote, Christina Kelly, Larry Alexander, Jay Wilson, Sussan Rad, Goddard Space Flight Center, Greenbelt, MD 20771
- 2:00pm DTN Tests on the Surrey Satellite Technology Limited (SSTL) United Kingdom Disaster Monitoring Constellation satellite (UKDMC), William D. Ivancic, NASA Glenn Research Center
- 2:30pm Planes, Trains and DTN, Ashton Vaughs, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California
- 3:00pm Towards Java in Space, Filip Pizlo, Lukasz Ziarek, Ethan Blanton, and Jan Vitek, Fiji Systems LLC
- 3:30pm Establishing An Environment For Continuous Integration And Test Of Flight Software, Robert Klar, Christopher Mangels, And Randal Harmon, Southwest Research Institute
- 4:00pm CLOSING REMARKS