

June 14 – 15, 2006
Hyatt Regency Reston, Reston, VA 20190



The MathWorks Aerospace & Defense Conference | 2006

Innovation Across the Industry

The MathWorks Aerospace and Defense Conference 2006 provides an opportunity to focus on developing a deeper understanding of the MATLAB® and Simulink® product families through presentations, master classes, and discussion. Join hundreds of top aerospace and defense researchers, scientists, and engineers from around the world for this targeted industry event.

Keynote Address - Wednesday June 14

Dr. Steven F. Butler

Director of Engineering & Technical Management, HQ AFMC, Wright-Patterson AFB

Guest Speaker - Thursday June 15

John Robb

Senior Manager, Air Vehicle Software, Lockheed Martin Aeronautics

Partial Listing of Industry Presentations

(Conference agenda on the following page)

Modeling of a Naval Electrical Power Generation and Propulsion System

Paul Norton, Chief Marine Engineer (Electrical), UK Ministry of Defence

Rapid Deployment of Aerospace Flight Controls

Edward Burnett, Senior Fellow: Modeling, Simulation and Controls, Lockheed Martin Aeronautics

Interactive On-Demand Parallel Computing

Albert Reuther, MIT Lincoln Laboratory

MATLAB, Simulink, and Cantera for Aerospace Thermodynamic System Modeling

Joshua E. Freeh, NASA Glenn Research Center

Communication Range Analysis Using Interactive MATLAB Application Program

John Conneely, Sikorsky Aircraft Corporation

A MATLAB Tool for the Study of Propagation Maps in MANET

Scott Rosen, The MITRE Corporation

Visit www.mathworks.com/madc for the full conference agenda, list of attending companies, and registration information.

Please e-mail questions about the conference to Mike.McHenry@mathworks.com

Master Classes

90-minute classes for intermediate and advanced users. Classes fill on a first-come, first-served basis.

- > Handling Large Datasets Efficiently in MATLAB
- > Fixed-Point DSP Modeling
- > Automatically Generating Embedded Code for Control Systems
- > Advanced Programming Techniques in MATLAB
- > Video and Image Processing Applications in Simulink
- > Distributed and Parallel Computing with MATLAB

Partner and Product Demonstrations

Demonstrations from The MathWorks and their third-party partners, including:

- > Altera Corporation
- > LeCroy Corporation
- > MÄK Technologies
- > Mentor Graphics
- > Opal-RT Technologies Inc.
- > PolySpace Technologies
- > Reactive Systems, Inc.
- > Rohde & Schwarz
- > TTTech Computertechnik AG
- > Xilinx

Accelerating the pace of engineering and science



Tuesday, June 13

6:30 - 8:30 p.m. Registration and evening reception

Wednesday, June 14

GENERAL SESSION

MASTER CLASSES

7:30 - 8:30 a.m.	Registration and continental breakfast
7:30 a.m. - 7:00 p.m.	Exhibit area open
8:30 - 8:45 a.m.	Introduction and Welcome Mike McHenry, The MathWorks
8:45 - 9:30 a.m.	Keynote: Dr. Steven F. Butler, Dir. Engineering & Technical Management, HQ AFMC, Wright-Patterson AFB
9:30 - 10:00 a.m.	The MathWorks Today Lisa Kempler and Paul Barnard, The MathWorks
10:00 - 10:30 a.m.	Coffee break and exhibits
10:30 - 11:00 a.m.	Rapid Deployment of Aerospace Flight Controls, Edward Burnett, Lockheed Martin Aeronautics
11:00 - 11:30 a.m.	First Civilian Tiltrotor Takes Flight David King, Bell Helicopter
11:30 - noon	Tuning Multi-Loop Compensators to Meet Time and Frequency Domain Requirements John Glass, The MathWorks
Noon - 1:30 p.m.	Luncheon, coffee and dessert in the exhibits area
1:30 - 2:00 p.m.	Modeling a Naval Electrical Power Generation and Propulsion System Paul Norton, UK Ministry of Defence
2:00 - 2:30 p.m.	Hardware-in-the-Loop Simulation of an Aircraft Brake System Alan Johnson, Cessna Aircraft Company
2:30 - 3:00 p.m.	Modeling Multidomain Physical Systems in Simulink Terry Denery, The MathWorks
3:00 - 3:30 p.m.	Coffee break and exhibits
3:30 - 4:00 p.m.	An FPGA-based Airborne Image Processing Application Using MDE Techniques Edward Power, SELEX
4:00 - 4:30 p.m.	Displaying Aircraft in MATLAB Only Flight Simulators Using Virtual Reality Edward Mayhew, Syracuse Research Corporation
4:30 - 5:00 p.m.	Designs of Real-Time Video Processing Systems in Simulink® Dave Jackson, The MathWorks
5:00 - 7:00 p.m.	Evening reception

10:30 - noon
Handling Large Datasets
CLASS FILLED

1:30 - 3:00 p.m.
Advanced Programming Techniques in MATLAB
CLASS FILLED

1:30 - 3:00 p.m.
Fixed-Point DSP

3:30 - 5:00 p.m.
Automatically Generating Embedded Code for Control Design

Thursday, June 15

GENERAL SESSION

MASTER CLASSES

7:30 - 8:30 a.m.	Registration and continental breakfast		
7:30 a.m. - 5:00 p.m.	Exhibit area open		
8:25 - 8:30 a.m.	Welcome Mike McHenry, The MathWorks		
8:30 - 9:00 a.m.	Guest Speaker: John Robb, Senior Manager of Air Vehicle Software, Lockheed Martin		
9:00 - 9:30 a.m.	Software Build & Test at Rockwell Collins Bryan Galusha, Rockwell Collins		
9:30 - 10:00 a.m.	Using MathWorks Tools to Generate Code for DO-178B Applications Bill Potter, The MathWorks		
10:00 - 10:30 a.m.	Coffee break and exhibits	10:30 a.m. - noon Distributed and Parallel Computing with MATLAB	
10:30 - 11:00 a.m.	Safety Critical Control Systems Carnegie Mellon		
11:00 - 11:30 a.m.	MATLAB, Simulink, and Cantera for Aerospace Thermodynamic System Modeling Joshua Freeh, NASA Glenn Research Center		
11:30 a.m. - noon	GPS System Design Mike Donovan, The MathWorks		
Noon - 1:30 p.m.	Luncheon, coffee and dessert in the exhibits area		
1:30 - 2:00 p.m.	A MATLAB Tool for Study of Propagation Maps in MANET Scott Rosen, The MITRE Corporation	1:30 - 3:00 p.m. Developing Video and Image Processing Applications in Simulink	1:30 - 3:00 p.m. Advanced Programming Techniques in MATLAB CLASS FILLED
2:00 - 2:30 p.m.	Communication Range Analysis Using Interactive MATLAB Application Program John Conneely, Sikorsky Aircraft Corporation		
2:30 - 3:00 p.m.	Communication System Design for SDR Mike McLernon, The MathWorks		
3:00 - 3:30 p.m.	Coffee break and exhibits		
3:30 - 4:00 p.m.	Modeling Complex Systems Using SimEvents Giovanni Mancini, The MathWorks	3:30 - 5:00 p.m. RF Toolbox and RF Blockset	3:30 - 5:00 p.m. Handling Large Datasets
4:00 - 4:30 p.m.	Interactive On-Demand Parallel Computing Albert Reuther, MIT Lincoln Laboratory		
4:30 - 5:15 p.m.	Solving Computationally Intensive Problems with Distributed Computing Narfi Stefansson, The MathWorks		
5:15 p.m.	Conference wrap-up Mike McHenry, The MathWorks		