

## **GSAW2009 Tutorial J:**

Techniques for SOA Application Service Development

**Length:** Full Day

### **Overview:**

The purpose of this course is to introduce techniques for the methodical development of service oriented architecture (SOA) application services as currently practiced in industry. The tutorial begins with a brief overview of SOA and application services. Then participants receive a generic business case argument for future customization within their organizational context. The business case demonstrates that development activities (IT and software in general) align with the needs of the enterprise and are of sufficient value to warrant their expenditures. Presentation of an application service reference architecture follows. It establishes a conceptual foundation from which implementations derive. Next is an overview of a service analysis and design methodology that ensures service selection and design maximizes reuse and therefore value to the enterprise. The Application Service Design module covers industry-known patterns. After this, a documentation technique for capturing application service architecture, detailed design, and high level planning information in the form of a service portfolio plan precedes an overview of information architecture. The final lecture style module covers governance for application services throughout planning, development, and operations. The course concludes with an hour question-and-answer session with JPL engineers that are actively involved in service oriented architecture implementations for ground data systems. This is an opportunity to gain exposure to practical considerations of implementation and adoption realities.

**Instructors:** Steven Fonseca, Michael Kolar, Magdi Carlton, Elisa Kendall, Jayne Dutra, Sheldon Shen, Shan Malhotra, and Michael Levesque, Jet Propulsion Laboratory

### **Biography:**

The course is taught by members of the JPL ground data system service oriented architecture development community. Michael Kolar is Deputy Section Manager for Integrated Ground Data Systems. Steven Fonseca is Chief Software Architect for the Deep Space Information Services Architecture (DISA) initiative. Magdi Carlton is a Program Element Manager for the Advanced Multi-Mission Operations System (AMMOS). Elisa Kendall is CEO for Sandpiper Software. Jayne Dutra serves as the DISA Governance Architect and Office of the Chief Information Officer Information Architect. Sheldon Shen is the Accountability Service Architect for AMMOS. Shan Malhotra is the Subsystem Engineer for the Deep Space Network (DSN) Service Preparation Subsystem. Michael Levesque is Chief Software Systems Engineer for the DSN.

### **Who Should Attend:**

Technical and business managers