Practice Symposia
IMP / IMS Track

Coordinator: Dale Gillam

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PS-19 Implementing the GAO Scheduling Best Practices within an Organization

GAO identified 10 scheduling best practices in the draft GAO Schedule Assessment Guide (GAO-12-12OG). Attempting to improve scheduling within an organization using the GAO scheduling best practices can be a difficult challenge. Implementing the GAO scheduling best practices within an organization involves making several choices. Among those choices are implementing radical change or phased change and making the change mandatory or voluntary.

Presenters will discuss their on-going attempt to change the current scheduling practices of an organization by implementing the GAO scheduling best practices. Attendees will have an opportunity to learn how this process is working and to leverage anything from this work in progress or offer advice on how to improve the situation.

This session is intended for those who are responsible for scheduling or who use a schedule as part of their Earned Value Management System and are interested in implementing the GAO Scheduling Best Practices within their organization.

Brian M. Evans, PMP, PMI-SP, EVP, PSP, DRMP, Principal, MCR, LLC
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Brian Evans, a Technical Director, at MCR, LLC has over 25 years of full life cycle experience in large-scale program and project management experience with Federal civilian agency and DoD clients. He has developed and taught program and project management courses for American University, MCR, the Federal Aviation Administration and private clients.

Mr. Evans is a subject matter expert in program/project management, scheduling, and earned value management. He has experience in controlling and simultaneously integrating multiple large, complex, multidisciplinary projects in an uncertain environment. Mr. Evans implements earned value management systems for his clients and his own projects. He has experience in performing Schedule Risk Analyses using Primavera and Microsoft Project. In addition, he understands the linkage of schedule analysis to cost analysis and EVM.

Prior to joining MCR, LLC, Mr. Evans worked for IBM; PricewaterhouseCoopers, LLP; Litton Industries; PRC, Inc.; and Advanced Technology, Inc.

Mr. Evans earned a M.Sc. in Technology Management from University of Maryland University College and a B.Sc. in Mechanical and Aerospace Engineering from Cornell University. He is certified by PMI as a Project Management Professional, a Scheduling Professional, and a Risk Management Professional. Mr. Evans is also certified by AACE, International as an Earned Value Professional, a Planning and Scheduling Professional, and a Decision and Risk Management Professional. He is certified by IIL, Inc. as a Microsoft Project 2003 Blue Belt and Orange Belt. Mr. Evans also serves as a volunteer for CPM and AACE International.

Katherine Koman Evans, MCR, LLC
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Ms. Evans has over fifteen years of experience providing a variety of schedule development and analysis, integrated cost-schedule risk assessment (SRA), earned value management (EVM) and system implementation support to numerous government and commercial clients. Specific government clients include the Federal Aviation Administration, National Geospatial-Intelligence Agency, Small Business Administration, U.S. Veterans Administration, and Air Force Operational Test and Evaluation Center. She attends the General Accountability Office (GAO) Cost and Schedule Experts meetings and was involved in the development of the draft GAO Scheduling Best Practices guide (GAO-12-120G). In addition, she understands the linkage of schedule analysis to cost analysis and EVM. She is certified by IIL, Inc. as a Microsoft Project 2003 Orange Belt. In addition, Ms. Evans serves in a volunteer capacity as the Dean for the Principles of Performance Measurement for the College of Performance Management.

Prior to MCR, LLC, Ms. Evans worked for PRC.

Ms. Evans earned a BA in Economics from DePauw University.

**PS-20 Schedule Margin…err Buffer, I mean Reserve, umm…Contingency**

Is Schedule Margin the same as Schedule Buffer? Is Schedule Buffer the same as Schedule Reserve? And how are any of these different than Schedule Contingency?
Meanings and usages differ from company-to-company, government agency-to-government agency, and guidance document-to-guidance document. This presentation will propose clear and specific definitions for each term, as well as an overview of suggested best practices for their calculation and management.

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Yancy Qualls has over 20 years of experience as a full-time scheduler in the Aerospace and Defense industry, with the last 16 being spent at Bell Helicopter. Yancy currently holds the position of Manager, Integrated Program Scheduling. In this capacity he sets company policy and provides training for all schedulers supporting both military and commercial aircraft in areas of design, test, and production.

Yancy is a frequent presenter and panelist at national conferences and is the co-lead of the NDIA IPMD’s Planning and Scheduling Working Group (PSWG). Yancy was also a co-writer of the Planning and Scheduling Excellence Guide (PASEG) and the Predictive Measures Guide.

Yancy earned a B.S. in Industrial Engineering from Texas A&M University and an MBA from Texas Christian University. In addition, Yancy holds both the PSP and PMI-SP professional scheduling certifications.

**PS-21 Schedule Risk Analysis - Using the Past to Predict the Future**

As a planning and scheduling professional it is important to provide the program management team with an understanding of potential schedule impacts associated with emerging or existing program risks. A Schedule Risk Assessment can show which activities are most likely to cause the program to overrun and provides an early warning indicator of threats to the schedule. This analysis can also be used to help predict the probability of completing key milestones, events, or tasks by specific dates. But have you ever thought about how accurate the models really are?

This session will explore several topics including whether or not common distribution types accurately model your data well, how to build custom distribution curves based on historical data, and how to validate three point duration estimates based on actual historical performance. We will also discuss some differences between the “Art” of obtaining forecast estimates for task durations versus using the “Math” for statistical analysis.

Statistical analysis performed on a regular basis enhances the use of the Integrated Master Schedule as a management tool. Results promote communication and prompt discussions around program risk and opportunities. Performance also improves when you provide information to help teams identify the risk, better understand possible outcomes, and determine what activities require increased management attention. The value provided by performing a Schedule Risk Assessment is evident when programmatic decisions are being made based on the results.
Andrew Uhlig, PMP, Raytheon Missile Systems  
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Andrew Uhlig is the Chief Planning Engineer for the Program Planning and Scheduling Department at Raytheon Missile Systems. He currently directs the technical process, tools and architecture associated with the creation, maintenance and analysis of Integrated Master Schedules. Prior to his present role, he was a Section Manager supporting the Air Warfare Systems Product Line. His team provided planning support to various programs ranging from start-up and proposal activities, through maintenance and execution to contract closure.

Andrew joined Raytheon in 2001 as a Business Analyst specializing in Earned Value Management. He then transitioned into a Tools Liaison role and supported the development, testing, and training of tools that would be incorporated into Raytheon’s Program Management Excellence automated tool suite for cost and schedule integration. Through the course of his career, he has provided direct support to a wide range of programs and customers in many different capacities related to the Program Management discipline.

**PS-22 Schedule Margin is Allowed…DON’T SCREW IT UP!**

The debate over the purpose, placement, and use of schedule margin in an IMS has been ongoing for years. Recently, PARCA has issued DoD policy clarification stating: “The definition of schedule margin in DoD allows for its application at multiple points in a schedule, as long as each instance of schedule margin is properly identified, can be removed for critical path analysis as applicable, can be managed, can be explained, and is placed at strategic integrations points within the integrated master schedule that benefits the contractor’s ability to manage the work…Schedule margin may be in the critical path with discrete predecessors and successors.” This presentation presents the issue and recent developments, discusses known objections, provides insight into how to achieve the key points provided in PARCA’s clarification including how to turn perceived negative effects of this approach into positives, and ultimately aid practitioners in managing schedule risks inherent in development programs.

Rick A. Price, Lockheed Martin Space Systems Company  
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Rick has more than 34 years of experience with Lockheed Martin in Aerospace and Defense across spacecraft, launch vehicle, and missile development programs, as well as site activation, and test facility construction projects. Rick has worked with numerous DoD, NASA, commercial, and international customers. His areas of expertise include program planning and scheduling, IMP/IMS development, EVM policy and practice implementation, subcontract management and integration, and major proposal efforts (proposal development, independent review teams, and subcontract source selection evaluations). Currently, Rick is a Project Management and Planning Operations Principal with Lockheed Martin Space Systems Company. His primary focus involves mentoring, coaching, and teaching program management fundamentals and techniques across Space Systems programs. Mr. Price has authored numerous articles for in-house Lockheed Martin publications and co-
authored articles featured in The Measurable News and other outside publications. He has also spoken at PMI/CPM symposiums/workshops and the NASA PM Challenge and is an active member of the NDIA Integrated Program Management Division.

**PS-23 The Impact of Selected Assumptions and Core Tenets on SRA Results**

In the quest to ensure the sound representation of Schedule risk assessment (SRA) simulations this case study will provide a progressive model comparison of schedule risk assessment assumptions and core tenets. The elements of this approach will focus on the: methodology and tools; the progressive assumptions and core tenets applied; and conclusions and lessons learned for practitioners.

The effort to document the methodology, assumptions and applied core tenets for the schedule risk assessment process provides the opportunity to realize the direct impact these conditions will have on the schedule risk assessment results. This helps to establish a set of guidelines that can be followed for schedule risk assessment success. The outcome of this case study will offer new insight into the importance of selected assumptions used for schedule simulations. This will greatly enhance the understanding and confidence that leadership and project teams have in the schedule risk assessment results. It will also assure that sound decisions are being made based on the reliance of these crucial simulation factors.

When completed, the attendee will be able to: Comprehend the primary core tenets of the progressive model comparison and how it was implemented successfully on a program; Analyze the value of utilizing proven schedule risk assessment analysis tools and techniques and synthesize the benefits of understanding the importance of selected assumptions and core tenets applied to schedule simulations.

**James D. Quilliam, PMP, PhD, Tecolote Research Inc.**
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James is currently a Principal Analyst in the Los Angeles Division of Tecolote Research, Inc. a privately-held company that is a leading provider of cost estimating, financial management, scheduling, and earned value management (EVM) services for complex acquisition, construction, and integration projects.

James has provided high quality, integrated services that rely on proven business and analytical processes, and automated tools that are based on a strong knowledge of customer requirements and leading edge technology. He has supported the private sector as well as multiple federal and military mission-driven organizations. James has successfully assisted and consulted with a myriad of organizations to help them foster and implement initiatives to produce intelligent, fact-based decisions to improve mission effectiveness, resource efficiency, and resource savings. James teaches project management classes and is certified by the Project Management Institute as a Project Management Professional. His educational background includes a Bachelor of Science degree in Business Administration, a Masters of Business Administration, and Ph.D. in Industrial and Organizational Psychology.

**PS-24 Essential Views of the Integrated Program Management Reports (IPMRs)**
During this session, the authors propose key views of the IPMRs and other data that will allow a government stakeholder to a) understand the cost, schedule and technical status on applicable contracts, b) investigate the nexus of performance problems, and c) observe likely future problems.

The presentation represents a distillation of the traditional top-down metrics to provide contract performance insight and control and bottom-up metrics generated through the Schedule Risk Analysis process. The authors propose about two dozen views and metrics and provide rationale on why they consider these most important in providing accurate status and uncovering current and future potential problems so the government PM can help in keeping the program green. This presentation draws upon the research findings of others and was sponsored by OSD PARCA. The authors are seeking feedback from the attendees.

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Mr. Gordon M. Kranz is the Deputy Director for Earned Value Management Performance Assessments and Root Cause Analyses in the Office of the Assistant Secretary of Defense for Acquisition. Mr. Kranz’s office serves as the Department of Defense focal point for all policy, guidance, and competency relating to Earned Value Management. Earned Value Management (EVM) is one of DoD’s and industry’s most powerful integrated program management tools used by the government and industry program managers and their teams to support decision making as they navigate the day-to-day constraints and risks that all DoD programs face.

Prior, Mr. Kranz held positions as the Executive Director, Engineering and Analysis, for the Defense Contract Management Agency (DCMA) and the Director, Systems and Software Engineering, in the Office of the Deputy Under Secretary of Defense (DUSD) for Acquisition and Technology (A&T). In these roles, Mr. Kranz provided policy, training, and tools required to perform systems engineering, software engineering, earned value management, manufacturing and production, quality, system assurance, risk management, and supply chain predictability.

Mr. Kranz has 30 years of defense acquisition experience, including 16 years in private industry as a senior technical lead and program manager and 10 years as an acquisition program manager for the United States Air Force.

Mr. Kranz received a Bachelor of Science degree in Electrical Engineering from North Dakota State University, a Master of Science degree in Electrical Engineering from the Air Force Institute of Technology, and is certified by the Project Management Institute as a Project Management Professional.

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Mr. Coonce is currently investigating and recommending a minimal set of contractor performance metrics that a DoD program manager should need to pro-actively oversee contracted efforts. This research is being done for OSD’s Program Assessment and Root Cause Analysis. Prior to joining IDA, Mr. Coonce served as
the Director of NASA’s Cost Analysis Division where he shaped cost and schedule estimating policies and established a process for collecting the planned and actual cost, schedule and technical data associated with NASA flight programs. Prior to NASA, Mr. Coonce estimated a variety of programs for OSD’s Cost Analysis Improvement Group, the MITRE Corporation and the U.S. GAO.