

DEFENSE CONTRACT MANAGEMENT AGENCY



DCMA

ACQUISITION INSIGHT  GLOBAL ENGAGEMENT

DCMA EVMS DISCUSSION

August 26, 2015

ACQUISITION INSIGHT  GLOBAL ENGAGEMENT

Value for Money - Transforming How DCMA Executes Its DFARS EVMS Compliance Mission

1. Influence industry partners to field effective (and efficient) EVMS that are compliant with the 32 ANSI-748 guidelines
2. Improving Program Management (decision making) by the way we think about (and use) EVMS data

BBP 3.0 FOCUS AREA #4

- FY2015 USD(AT&L) Study: Eliminating Requirements Imposed On Industry Where Costs Outweigh Benefits Identified A Number Of DCMA EVMS Mission Areas For Improvement
- Key Initiatives - BBP 3.0 Eliminate Unproductive Processes and Bureaucracy Actions:
 - DCMA will expand “Data-Driven EVM Systems Streamlining Pilot” to conduct streamlined compliance reviews and system surveillance at three additional contractor facilities by October 2015
 - DCMA will provide an actionable plan to assess the benefits of streamlining its EVMS operations and centralizing its EVMS competency to improve consistency of EVMS implementation by Sept. 2015



DCMA STRATEGIC PLAN 2015-2020

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- Objective 1.3: Modernize contractor oversight methods and practices to maximize effectiveness while reducing industry cost of compliance
 - Initiative 1.3.2.1: Revise our current policy and CONOPS to streamline how we conduct the EVMS mission (Compliance, Surveillance, and Analysis) and target cost savings of 10%
 - Effectiveness and efficiency of the DCMA DFARS EVMS mission is maximized through the coupling and physical integration of strategy and execution
 - Flattens the organization structure, reduces head count and costs
 - Adopts the agile approach to EVMS compliance oversight through simultaneous collaboration through the integration of strategy and execution resulting in adaptive planning, evolutionary development, early delivery, continuous improvement, and rapid and flexible response to change

- EVAS - Demonstrated ability to automate 60 of 163 test metrics utilizing existing supplier data (PARCA EVM CR)
- Working with PARCA to establish no-low cost method to obtain additional supplier EVMS (system) data from EVM Central Repository using IPMR Formats 6 and 7
- Lockheed Martin replicating automated, data driven compliance approach across all business sectors
- Data driven compliance approach leading to company business re-engineering efforts leading to reductions in contract overhead and direct costs for EVMS implementation (e.g., BAE Systems, UK)



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Earned Value Management System Interpretation Guide (EVMSIG)

DCMA role for executing compliance and implementing remains unchanged by the OSD EVMSIG as stipulated :

- Section 1.2: “...when DoD is the cognizant federal agency, the Defense Contract Management Agency (DCMA) is responsible for determining EVMS compliance.”
- Section 1.1: “... agencies and organizations charged with conducting initial and continuing EVMS compliance activities will establish amplifying agency procedures and/or guidance to clarify how the respective agencies and organizations are implementing this guide to include the development of evaluation methods for the attributes associated with each of the 32 guidelines.”

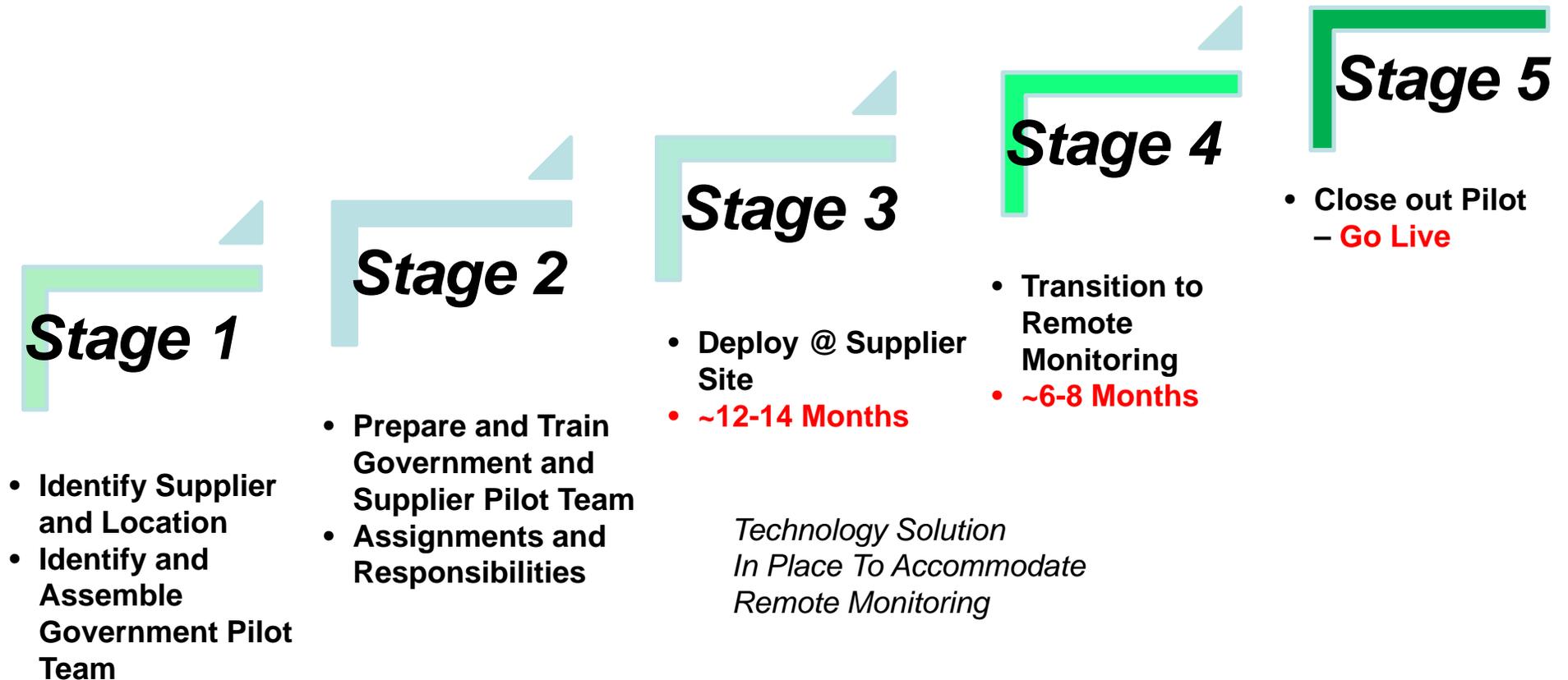


BBP 3.0 DATA DRIVEN EVMS PILOT STATUS

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- **Lockheed Martin Aero, Ft. Worth, TX (BAE Systems, UK)**
 - Entering Stage 4
 - LMC replicating data driven approach across business sectors
 - BAE building capability to execute and evaluate automated metrics through its own toolset - 89 of 102 automated metrics completed
 - Site Visit 14-17 September 2015
 - *Special Focus: Major Subcontract Integration*
- +1 • **General Dynamics Electric Boat, Groton, CT**
 - Entering Stage 3, Site Visit 21-24 September 2015
 - *Special Focus: Shipyard Construction Application*
- +2 • **Raytheon Missiles Systems, Tucson, AZ**
 - Entering Stage 3, Site Visit 14-17 September 2015
 - *Special Focus: Automation of Accounting GLs*
- +3 • **Textron Land and Marine Systems, New Orleans, LA**
 - Entering Stage 3, Site Visit 17-20 August 2015
 - Textron considering data driven approach across business systems
 - *Special Focus: Rework of Compliance Review Checklist (CRC)*

DATA DRIVEN EVMS PILOT STAGES





IPMR F6 – Data Elements

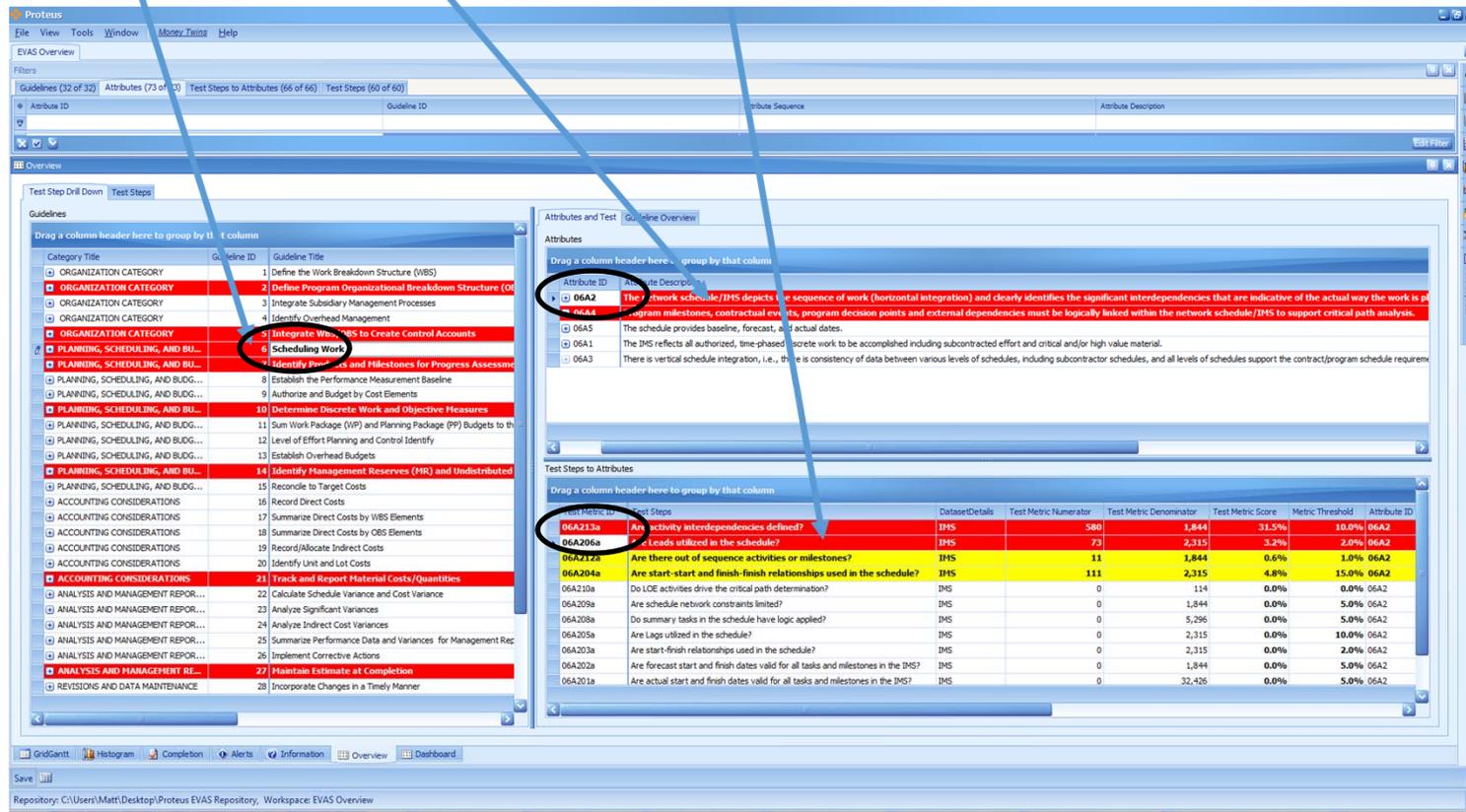
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Activity ID	Activity Description	Baseline Start Date	Baseline Finish Date	Actual Start Date	Actual Finish Date	Early Start Date	Early Finish Date	Late Start Date	Late Finish Date	Start Date	Finish Date	Expected Finish Date	Total Float	Activity Type	Activity Status	Task Type	Task Hours	Predecessors	Successors	Relationship Type	Percent Complete	Deadline	Constraint Type	Constraint Date	Baseline Duration	IMP Code	Critical Path	Status Date (month/day/year)
06A101a				X											X													
06A201a	X			X	X																						X	
06A202a	X			X	X	X																					X	
06A203a	X			X													X	X	X									
06A204a	X			X													X	X	X									
06A205a	X			X													X	X	X									
06A206a	X			X													X	X	X									
06A207a																												
06A208a	X												X				X	X										
06A209a	X			X																		X						
06A210a	X																											
06A211a																												
06A212a	X			X													X	X	X									
06A213a	X			X													X	X	X									
06A301a																												
06A501a	X	X	X	X		X							X		X													
06A502a	X			X	X							X	X															
06A503a																												
06A504a	X			X																								
06A504b	X			X																								
06A505a	X			X									X								X							
06A505b	X			X									X								X							

Guidelines

Attributes

Test Metrics



The screenshot shows the Proteus EVAS software interface. The 'Guidelines' pane on the left lists various organizational and planning categories. The 'Attributes and Test' pane on the right shows a detailed view of an attribute (06A2) and a table of test metrics. Three callout boxes are present: one pointing to the 'Guidelines' list, one pointing to the 'Attributes' list, and one pointing to the 'Test Metrics' table.

Test Metric ID	Test Metric Description	Database/Details	Test Metric Numerator	Test Metric Denominator	Test Metric Score	Metric Threshold	Attribute ID
06A213a	Are activity interdependencies defined?	IPHS	580	1,844	31.5%	10.0%	06A2
06A206a	Are leads utilized in the schedule?	IPHS	73	2,315	3.2%	2.0%	06A2
06A212a	Are there out of sequence activities or milestones?	IPHS	11	1,844	0.6%	1.0%	06A2
06A204a	Are start-start and finish-finish relationships used in the schedule?	IPHS	111	2,315	4.8%	15.0%	06A2
06A210a	Do LOE activities drive the critical path determination?	IMS	0	114	0.0%	0.0%	06A2
06A209a	Are schedule network constraints limited?	IMS	0	1,844	0.0%	5.0%	06A2
06A208a	Do summary tasks in the schedule have logic applied?	IMS	0	5,296	0.0%	5.0%	06A2
06A205a	Are Lags utilized in the schedule?	IMS	0	2,315	0.0%	10.0%	06A2
06A203a	Are start-finish relationships used in the schedule?	IMS	0	2,315	0.0%	2.0%	06A2
06A202a	Are forecast start and finish dates valid for all tasks and milestones in the IMS?	IMS	0	1,844	0.0%	5.0%	06A2
06A201a	Are actual start and finish dates valid for all tasks and milestones in the IMS?	IMS	0	32,426	0.0%	5.0%	06A2

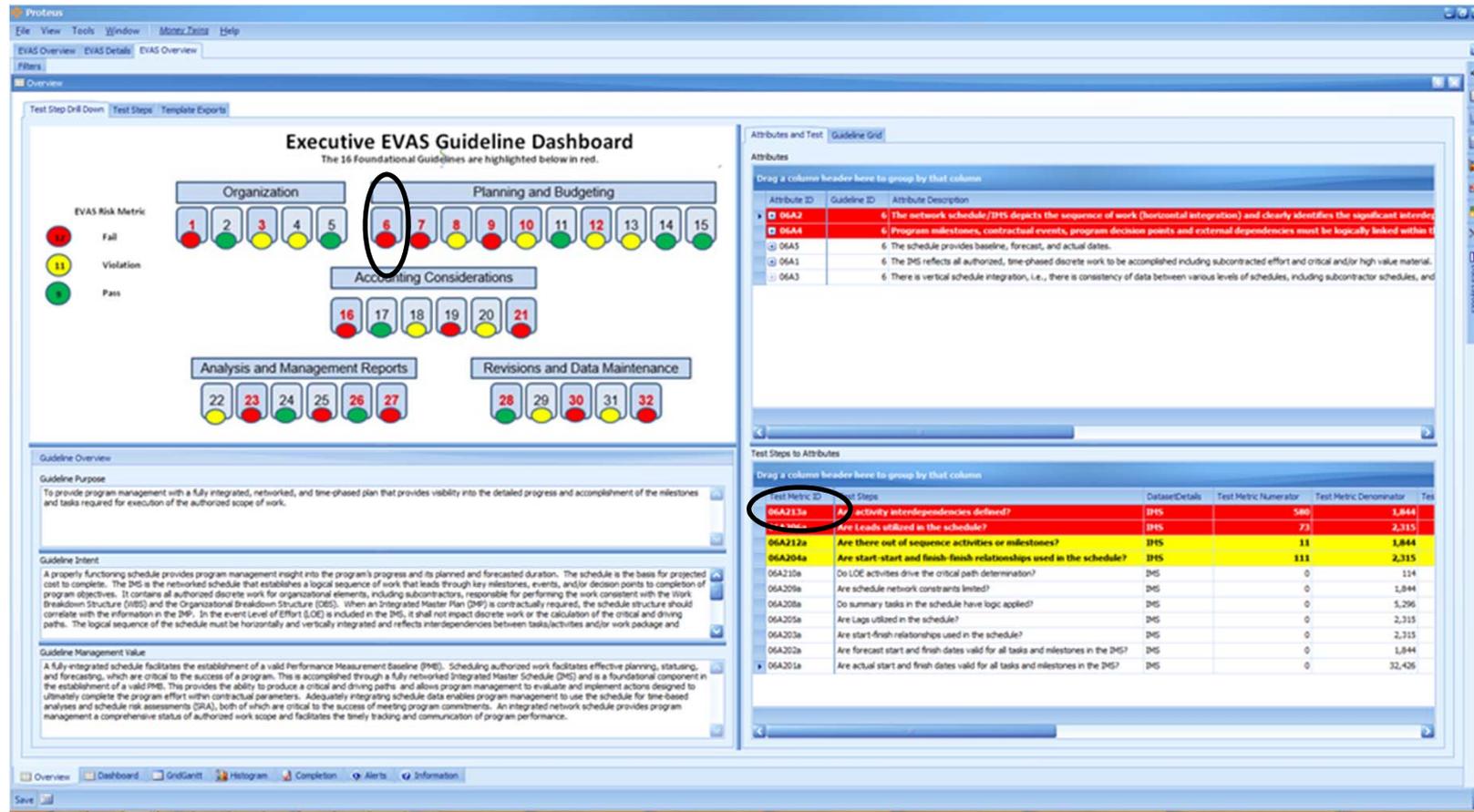
Drill down through Guidelines to Attributes to Test Metrics



EVAS Test Metric Overview

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Metric ID	Test Steps	Attributes	Test Score	Threshold	Test Result	Test Parts	Part Values	Part Tests
DEFENSE CONTRACT MANAGEMENT AGENCY			0.0%	5.0%	Pass	Numerator	0	X = # of summary tasks with logic applied (Number of Predecessor > 0 or Number of Successor > 0)
						Denominator	5,296	Y = total # of summary tasks
06A209a	Are schedule network constraints limited?	06A2	0.0%	5.0%	Pass	Numerator	0	X = # of incomplete tasks and milestones with Hard Constraints
						Denominator	1,844	Y = total # of incomplete tasks and milestones
06A210a	Do LOE activities drive the critical path determination?	06A2	0.0%	0.0%	Pass	Numerator	0	X = # of LOE activities on the critical path
						Denominator	114	n/a
06A212a	Are there out of sequence activities or milestones?	06A2	0.6%	1.0%	Violation	Numerator	11	X = # of activities and milestones statused out of sequence
						Denominator	1,844	Y = total # of incomplete activities and milestones
06A213a	Are activity interdependencies defined?	06A2, 06A4	31.5%	10.0%	Fail	Numerator	580	X = # of incomplete activities (tasks and milestones) with either missing predecessors or missing successors
						Denominator	1,844	Y = total # of incomplete activities (tasks and milestones)
06A501a	In the IMS, do all of the tasks have baseline start and baseline finish dates?	06A5	0.2%	5.0%	Violation	Numerator	70	X = # of tasks and milestones without baseline dates
						Denominator	32,426	Y = total # of tasks and milestones
06A502a	In the IMS, do all of the tasks with an actual start have an expected finish?	06A5	0.5%	5.0%	Violation	Numerator	121	X = # of tasks with an actual start (in progress) without an expected finish date
						Denominator	25,623	Y = total # of tasks
06A504a	Are actual start dates changed after first reported?	06A5	0.0%	10.0%	Pass	Numerator	0	X = # of activities where actual start date ≠ previously reported actual start date
						Denominator	24,470	Y = # of activities with actual start dates
06A504b	Are actual finish dates changed after first reported?	06A5	0.0%	10.0%	Pass	Numerator	0	X = # of activities where actual finish date ≠ previously reported actual finish date
						Denominator	24,349	Y = # of activities with actual finish dates
06A505a	In the IMS, do all of the tasks have actual start dates?	06A5	0.0%	5.0%	Pass	Numerator	0	X = # of tasks with % Complete > 0 with no actual start dates
						Denominator	25,623	Y = total # of tasks
06A505b	In the IMS, do all of the tasks have actual finish dates?	06A5	0.0%	5.0%	Pass	Numerator	0	X = # of tasks with % Complete = 100 % with no actual finish dates
						Denominator	25,623	Y = total # of tasks



Executive EVAS Guideline Dashboard
The 16 Foundational Guidelines are highlighted below in red.

EVAS Risk Metric

- Fail (Red)
- Violation (Yellow)
- Pass (Green)

Organization (1-5)

Planning and Budgeting (6-15)

Accounting Considerations (16-21)

Analysis and Management Reports (22-27)

Revisions and Data Maintenance (28-32)

Guideline Overview

Guideline Purpose
To provide program management with a fully integrated, networked, and time-phased plan that provides visibility into the detailed progress and accomplishment of the milestones and tasks required for execution of the authorized scope of work.

Guideline Intent
A properly functioning schedule provides program management insight into the program's progress and its planned and forecasted duration. The schedule is the basis for projected cost to complete. The IMS is the networked schedule that establishes a logical sequence of work that leads through key milestones, events, and/or decision points to completion of program objectives. It contains all authorized discrete work for organizational elements, including subcontractors, responsible for performing the work consistent with the Work Breakdown Structure (WBS) and the Organizational Breakdown Structure (OBS). When an Integrated Master Plan (IMP) is contractually required, the schedule structure should correlate with the information in the IMS. In the event Level of Effort (LOE) is included in the IMS, it shall not impact discrete work or the calculation of the critical and driving paths. The logical sequence of the schedule must be horizontally and vertically integrated and reflects interdependencies between tasks/activities and/or work package and

Guideline Management Value
A fully-integrated schedule facilitates the establishment of a valid Performance Measurement Baseline (PMB). Scheduling authorized work facilitates effective planning, estimating, and forecasting, which are critical to the success of a program. This is accomplished through a fully networked Integrated Master Schedule (IMS) and is a foundational component in the establishment of a valid PMB. This provides the ability to produce a critical and driving paths and allows program management to evaluate and implement actions designed to ultimately complete the program effort within contractual parameters. Adequately integrating schedule data enables program management to use the schedule for time-based analyses and schedule risk assessments (SRA), both of which are critical to the success of meeting program commitments. An integrated network schedule provides program management a comprehensive status of authorized work scope and facilitates the timely tracking and communication of program performance.

Attributes and Test

Attributes

Attribute ID	Guideline ID	Attribute Description
06A2	6	The network schedule/IMS depicts the sequence of work (horizontal integration) and clearly identifies the significant interdependencies between tasks/activities and/or work packages.
06A4	6	Program milestones, contractual events, program decision points and external dependencies must be logically linked within the schedule.
06A5	6	The schedule provides baseline, forecast, and actual dates.
06A1	6	The IMS reflects all authorized, time-phased discrete work to be accomplished including subcontracted effort and critical and/or high value material.
06A3	6	There is vertical schedule integration, i.e., there is consistency of data between various levels of schedules, including subcontractor schedules, and

Test Steps to Attributes

Test Metric ID	Test Steps	Dataset/Details	Test Metric Numerator	Test Metric Denominator	Test
06A213a	Are activity interdependencies defined?	IMS	588	1,844	Fail
06A213b	Are Leads utilized in the schedule?	IMS	73	2,315	Fail
06A212a	Are there out of sequence activities or milestones?	IMS	11	1,844	Violation
06A204a	Are start-start and finish-finish relationships used in the schedule?	IMS	111	2,315	Violation
06A210a	Do LOE activities drive the critical path determination?	IMS	0	114	Pass
06A209a	Are schedule network constraints limited?	IMS	0	1,844	Pass
06A208a	Do summary tasks in the schedule have logic applied?	IMS	0	5,296	Pass
06A205a	Are Lags utilized in the schedule?	IMS	0	2,315	Pass
06A203a	Are start-finish relationships used in the schedule?	IMS	0	2,315	Pass
06A202a	Are forecast start and finish dates valid for all tasks and milestones in the IMS?	IMS	0	1,844	Pass
06A201a	Are actual start and finish dates valid for all tasks and milestones in the IMS?	IMS	0	32,426	Pass

Executive EVAS Guideline Dashboards