

EVMS Training Snippet Library:
The Integrated Program Management Report (IPMR)
Data Item Description



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Achieving Management and Operational Excellence

This EVMS Training Snippet sponsored by the Office of Acquisition and Project Management (OAPM) explains the Integrated Program Management Report (IPMR) Data Item Description.

What is the IPMR?



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- **The IPMR contains data for measuring cost and schedule performance**
- **Seven Formats:**
 - Format 1: Product-oriented Work Breakdown Structure
 - Format 2: Organizational structure
 - Format 3: Baseline changes
 - Format 4: Staffing forecasts
 - Format 5: Narrative report provides analysis information
 - Format 6: Integrated Master Schedule (IMS)
 - Format 7: Electronic History and Forecast Time-Phased Cost Data

The IPMR is a monthly report submitted by the contractor and contains the most recent cost and schedule performance data. Developed by the Department of Defense, the IPMR is structured to include seven formats. DOE is adopting the IPMR when applicable on new contracts and as appropriate on current contracts.

Format 1 requires cost and schedule performance data reporting by product oriented Work Breakdown Structure (WBS) elements. Format 2 requires cost and schedule performance data by the contractor's organizational structure (e.g., Functional or Integrated Project Team (IPT)). Format 3 requires reporting of changes to the Performance Measurement Baseline (PMB). Format 4 requires staffing forecasts. Format 5 is a narrative report used to provide the required analysis of data contained in Formats 1-4 and 6. Format 6 contains the contractor's Integrated Master Schedule (IMS) and Format 7 is the electronic submission of historical and future time-phased cost data.

IPMR Background



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- **Originated in Department of Defense (DoD) July 2012**
- **Merged the Contract Performance Report (CPR) and Integrated Master Schedule (IMS)**
 - Integrates cost and schedule
 - New DID is DI-MGMT-81861
 - Supersedes IMS DID DI-MGMT-81650 and CPR DID DI-MGMT-81466A
- **DOE adopting IPMR with only slightly modifications**

The Department of Defense created the IPMR and it was effective for all contracts proposed after July 2012. If some of the IPMR formats look familiar, it is because the IPMR integrated the five CPR formats with the Integrated Master Schedule Data Item requirement. The Data Item Description or “DID” number is DI-MGMT-81861.

Because the IPMR merges the CPR and IMS into one DID, the prior CPR and IMS DIDs have been superseded by the IPMR DID.

The IMS, Format 6 in the IPMR, does not require a tool or particular format, but rather defines the content and naming conventions for unique items of interest so an outsider can find information within the IMS.

IPMR Purpose



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- **Reflects current contract status and projecting future contract performance**
- **Used as a basis for communicating performance status by DOE staff**
 - Including Office of Acquisition and Project Management, Project Management Support Office, Federal Project Directors, engineers, cost estimators, and financial management personnel
- **Uses**
 - Integrate cost and schedule performance data with objective technical measures of performance
 - Identify the magnitude and impact of realized and potential performance problem areas that may cause significant cost and schedule variances
 - Provide valid, timely, and accurate contract status information to Government leadership

The IPMR's primary value to OAPM, the PMSO, the FPD and IPT, and the contractor is its utility to reflect current project status and projections of future project performance. It is used as a basis for communicating performance status by:

1. Integrating cost and schedule performance data with objective technical measures of performance.
2. Identifying the magnitude and impact of realized and potential performance problem areas that may cause significant cost and schedule variances, and
3. Providing valid, timely, and accurate contract status information to Government leadership.

Format 1 – Work Breakdown Structure



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- **Format form is unchanged from CPR**
- **WBS reporting level defined by Contracting Officer**
- **Refer to IPMR DID for detailed guidance for reporting on items such as**
 - AUW
 - UB
 - MR
 - EACs
 - OTB/OTS and Reprogramming
 - G&A and Cost of Money
 - Negotiated Cost

Format 1 is used to report performance data (BCWS, BCWP and ACWP) by Work Breakdown Structure reporting elements for the current reporting period as well as cumulative to date. The Format has not changed from the CPR. The level of reporting is defined by the DOE Contracting Officer. The IPMR DID provides much detailed guidance on how to properly report on such items as AUW, UB, MR, EACs, OTB, OTS and Reprogramming and should be utilized as a handy reference,

Format 1 – Work Breakdown Structure



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INTEGRATED PROGRAM MANAGEMENT REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE														Dollars IN		PENDING UPDATE TO OMB No. 0704-0188			
<small>The submitting burden for the collection of information is estimated to average 2.1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THIS ADDRESS. SUBMIT COMPLETED FORMS IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS.</small>																			
1. CONTRACTOR				2. CONTRACT				3. PROGRAM				4. REPORT PERIOD							
a. NAME				a. NAME				a. FROM (YYYYMMDD)											
b. LOCATION (Address and ZIP Code)				b. NUMBER				b. PHASE				b. TO (YYYYMMDD)							
c. TYPE				d. SHARE RATIO				c. EVMS ACCEPTANCE NO YES (YYYYMMDD)											
5. CONTRACT DATA																			
a. QUANTITY		b. NEGOTIATED COST		c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK		d. TARGET PROFIT / FEE		e. TARGET PRICE		f. ESTIMATED PRICE		g. CONTRACT CEILING		h. ESTIMATED CONTRACT CEILING		i. DATE OF OBJECTIONS (YYYYMMDD)			
6. ESTIMATED COST AT COMPLETION																			
MANAGEMENT ESTIMATE AT COMPLETION (1)				CONTRACT BUDGET BASE (2)				VARIANCE (3)				7. AUTHORIZED CONTRACTOR REPRESENTATIVE							
												a. NAME (Last, First, Middle Initial)				b. TITLE			
a. BEST CASE												c. SIGNATURE				d. DATE SIGNED (YYYYMMDD)			
b. WORST CASE																			
c. MOST LIKELY																			
8. PERFORMANCE DATA																			
ITEM (1)	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS				AT COMPLETION		
	BUDGETED COST		ACTUAL COST	VARIANCE		BUDGETED COST		ACTUAL COST	VARIANCE		COST VARIANCE		SCHEDULE VARIANCE	BUDGET	BUDGETED	ESTIMATED	VARIANCE		
	WORK SCHEDULED (2)	WORK PERFORMED (3)	PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	(14)	(15)	(16)			
a. WORK BREAKDOWN STRUCTURE ELEMENT																			
b. COST OF MONEY																			
c. GENERAL AND ADMINISTRATIVE *																			
d. UNDISTRIBUTED BUDGET																			
e. SUB TOTAL (Performance Measurement Baseline)																			
f. MANAGEMENT RESERVE																			
g. TOTAL																			
9. RECONCILIATION TO CONTRACT BUDGET BASE																			
a. VARIANCE ADJUSTMENT																			
b. TOTAL CONTRACT VARIANCE																			

Here is a sample of the IPMR Format 1; it is unchanged from the CPR Format 1. For more information on this or any other Format addressed in this Snippet, please refer to the Snippet library or the data item description.

Format 2 – Organizational Categories



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- **Format form is unchanged from CPR**
- **Format 2 OBS not required to match Format 4 reporting**
- **Required by OBS instead of WBS**
- **Include subcontractors and material if applicable**
- **UB & MR match Format 1**

Format 2 is used to report organizational cost information. The Format 2 has not changed from the CPR Format 2. With concurrence from the Government, the Format 2 Organization Breakdown Structure or 'OBS' may differ from the Format 4 organizational reporting structure; this will be covered later in this Snippet. The Format 2 reports performance data (BCWS, BCWP and ACWP) by organizational structure, either functional or Integrated Project Team, as opposed to the Format 1's product-oriented Work Breakdown Structure.

The reporting structure will identify major subcontractors and each major vendor separately. The process for subcontract integration must be explained in Format 5. Undistributed Budget and Management Reserve must match Format 1.

Format 2 – Organizational Categories



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INTEGRATED PROGRAM MANAGEMENT REPORT FORMAT 2 - ORGANIZATIONAL CATEGORIES														Dollars IN		PENDING UPDATE TO OMB No. 0704-0388		
<small>The public reporting burden for this collection of information is estimated to average 0.8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THIS ADDRESS. SUBMIT COMPLETED FORMS IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS.</small>																		
1. CONTRACTOR				2. CONTRACT				3. PROGRAM				4. REPORT PERIOD						
a. NAME				a. NAME				a. NAME				a. FROM (YYYYMMDD)						
b. LOCATION (Address and ZIP Code)				b. NUMBER				b. PHASE				b. TO (YYYYMMDD)						
c. TYPE				d. SHARE RATIO				c. EVMS ACCEPTANCE NO YES (YYYYMMDD)										
5. PERFORMANCE DATA																		
ITEM	CURRENT PERIOD						CUMULATIVE TO DATE						REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST		VARIANCE		BUDGETED COST		ACTUAL COST		VARIANCE		COST VARIANCE		SCHEDULE VARIANCE		BUDGET	
	WORK SCHEDULED (2)	WORK PERFORMED (3)	WORK SCHEDULED (4)	WORK PERFORMED (5)	SCHEDULE (6)	COST (7)	WORK SCHEDULED (8)	WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	VARIANCE (12a)	SCHEDULE VARIANCE (12b)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)		
a. ORGANIZATIONAL CATEGORY																		
b. COST OF MONEY																		
c. GENERAL AND ADMINISTRATIVE *																		
d. UNDISTRIBUTED BUDGET																		
e. SUB TOTAL (Performance Measurement Baseline)																		
f. MANAGEMENT RESERVE																		
g. TOTAL																		

The format 2 reporting information is basically the same as the format 1 except the data is reported by Organizational Elements as opposed to the work breakdown structure elements.

Format 3 - Baseline



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- **Format now requires reporting of PMB (BCWS) and changes authorized during the period**
- **Provides insight into changes to baseline going forward**
- **Provide discussions of changes in Format 5**
- **Still contains projected finish date and variances**

Format 3 reports the time-phased Performance Measurement Baseline (PMB) through project completion. There are two format changes from the CPR to the IPMR. While both of these were on the CPR form, they were greyed-out. Now they are required entries. These are 1) Block 6.b. Columns 2 through 15, Baseline Changes Authorized During Report Period, and 2) Block 6.c, Column 3, BCWS for Report Period.

Data in block 6.b provides a list of all significant baseline changes that have occurred during the reporting period, in their respective timeframes, to provide insight into changes to the future baseline. The term “significant” may be defined by the Government, or determined by the contractor if undefined. The reasons for the significant changes must be discussed in Format 5.

Data in block 6.c. now shows any changes made to the Budgeted Cost for Work Scheduled during the Report Period. Consequently, any PMB changes in the current period will be clearly noted.

Format 3 - Baseline



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INTEGRATED PROGRAM MANAGEMENT REPORT FORMAT 3 - BASELINE															Dollars IN		PENDING UPDATE TO OMB No. 0704-0188			
<small>The public reporting burden for this collection of information is estimated to average 6.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision that may state otherwise, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THIS ADDRESS. Submit Comments/Requests in accordance with OMB Circulars, requirements.</small>																				
1. CONTRACTOR			2. CONTRACT			3. PROGRAM			4. REPORT PERIOD											
a. NAME			a. NAME			a. NAME			a. FROM (YYYYMMDD)											
b. LOCATION (Address and ZIP Code)			b. NUMBER			b. PHASE			b. TO (YYYYMMDD)											
			c. TYPE			d. SHARE RATIO			c. EVMS ACCEPTANCE NO YES (YYYYMMDD)											
5. CONTRACT DATA																				
a. ORIGINAL NEGOTIATED COST			b. NEGOTIATED CONTRACT CHANGES			c. CURRENT NEGOTIATED COST (a. + b.)			d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK			e. CONTRACT BUDGET BASE (c. + d.)			f. TOTAL ALLOCATED BUDGET			g. DIFFERENCE (e. - f.)		
h. CONTRACT START DATE (YYYYMMDD)			i. CONTRACT DEFINITION DATE (YYYYMMDD)			j. PLANNED COMPLETION DATE (YYYYMMDD)			k. CONTRACT COMPLETION DATE (YYYYMMDD)			l. ESTIMATED COMPLETION DATE (YYYYMMDD)								
6. PERFORMANCE DATA																				
ITEM (1)		BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)												UNDETERMINED BUDGET (15)	TOTAL (16)			
				SIX MONTH FORECAST						ENTER SPECIFIED PERIODS										
				+1 JAN (4)	+2 FEB (5)	+3 MAR (6)	+4 APR (7)	+5 MAY (8)	+6 JUN (9)	+7 Jul (10)	+8 Aug (11)	+9 Sep (12)	+10 Oct-Dec (13)	+11 TC (14)						
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)																				
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD																				
c. PERFORMANCE MEASUREMENT BASELINE (End of Period)																				
7. MANAGEMENT RESERVE																				
8. TOTAL																				

Here is a view of Format 3. As noted on the previous slide, while the IPMR Format 3 is the same basic structure as the CPR Format 3, the two significant differences are Block 6.b, which is now not shaded from Column 2 through Column 15, , and Block 6.c, Column 3, which is now not shaded (see arrow).

Format 4 - Staffing



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- **Format form is unchanged**
- **Format 4 OBS not required to match Format 2 reporting; requires Government concurrence**
- **Staffing information can be in hours, equivalent month, or total headcount**
- **Staffing forecast updated as part of formal EAC process**
- **Staffing forecast changes to be explained in Format 5**

Format 4 is the Staffing report. The format did not change from the previous CPR. The new IPMR DID says to list the organizational categories that reflect the contractor's internal management structure. Format 4 categories may differ from those reported in Format 2, with the concurrence of the Government.

The Government and the contractor may negotiate staffing to be reported in hours, equivalent months, or total headcount. The staffing forecast must be updated as part of the formal EAC process followed by the contractor. The staffing forecast must reflect the same staffing estimate used as the basis for the EAC shown in Column 15 on both Formats 1 and 2. The Government defines the thresholds for staffing forecast changes that need to be addressed in Format 5. If no thresholds have been defined, the contractor makes the determination.

Format 4 - Staffing



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INTEGRATED PROGRAM MANAGEMENT REPORT FORMAT 4 - STAFFING (BAC EQP)														PENDING UPDATE TO OMB No. 0704-0188	
<small>The public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THIS ADDRESS. SUBMIT COMPLETED FORMS IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS.</small>															
1. CONTRACTOR			2. CONTRACT				3. PROGRAM				4. REPORT PERIOD				
a. NAME			a. NAME				a. NAME				a. FROM (YYYYMMDD)				
b. LOCATION (Address and ZIP Code)			b. NUMBER				b. PHASE				b. TO (YYYYMMDD)				
			c. TYPE		d. SHARE RATIO		c. EVMS ACCEPTANCE NO YES (YYYYMMDD)								
5. PERFORMANCE DATA (All figures in whole numbers)															
ORGANIZATIONAL CATEGORY (1)	PLANNED CURRENT PERIOD (2)	PLANNED END OF CURRENT PERIOD (Cumulative) (3)	FORECAST (Non-Cumulative)												AT COMPLETION (15)
			SIX MONTH FORECAST BY MONTH (Enter Names of Months)										ENTER SPECIFIED PERIODS		
			+1 JAN (4)	+2 FEB (5)	+3 MAR (6)	+4 APR (7)	+5 MAY (8)	+6 JUN (9)	+7 Jul (10)	+8 Aug (11)	+9 Sep (12)	+12 Oct-Dec (13)	+13 TC (14)		
6. TOTAL DIRECT															

This is the IPMR Format 4 and it is the same as the CPR Format 4. As mentioned earlier, with Government concurrence, the organizational categories in Column 1 of Block 5 do not need to be the same as those in Format 2.

Format 5 – Explanations and Problem Analysis



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- **Top 15 approach to Variance Analysis**
 - Allowed for Government Selection or a defined contractor process that covers all aspects (current, cumulative and at-complete)
 - Allowed contractor or government to temporarily increase the number of reported variances to cover emerging trends
- **Linked Formats 1-4 and 6 discussions to Format 5**
 - Requirement to reconcile best/worst/most likely EAC
 - Significant Format 6 changes, e.g. SRA results, schedule duration assumptions, schedule margin status
- **Contractor format for delivery**

Format 5, Explanations and Problem Analyses, is a narrative report prepared to amplify and explain data provided in the other IPMR formats.

There are a few major changes from the CPR.

First is the “Top 15 Approach to Variance Analysis”. This means items are not reportable just because they exceed a reporting level threshold. Rather, WBS elements are candidates for selection for variance analysis reporting if they are at the reporting level and they exceed the variance analysis threshold. If this pool of reportable variances yields fewer than 15 variances, only those variance analyses are required. If this pool yields more than 15 variances, the Government may select the reportable variances based on information such as contract risk. This Government notification may be informally provided to the contractor by the FPD. Notification will be provided no later than 10 working days prior to the report delivery date. If the Government does not select the 15 reportable WBS variances, then the contractor follows a different process for selection of reportable variances. The contractor ranks all of the variances reportable by current schedule and cost; cumulative schedule and cost; and at completion variances. The top 3 in each category are reportable. If a WBS exceeds the top 3 in several categories it means less than 15 WBS elements may be reportable.

In either case, the total WBS variances reported will typically be limited to a maximum of 15. Either the contractor or government is allowed to temporarily increase the number of reported variances to cover emerging trends.

Items in the other Formats that require a narrative explanation in the Format 5 are also

identified in the DID. These include, for example, the assumptions used when creating the best case, worst case and most likely EACs.

Any significant changes in Format 6, the IMS, require a narrative in the Format 5. This may include results of a Schedule Risk Assessment, schedule duration assumptions, and status of schedule margin.

There is no required form for the format 5 but it must include the analyses defined in the Data Item Description.

Format 5 – Reporting Structure



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1. Contract Summary

- Significant changes that could impact technical, schedule, or cost objectives

2. Formal Reprogramming Analysis

- Discuss the authorization, reason, mechanics of implementation

3. EAC Analysis

- Explain the assumptions, methodologies between Best Case, Worst Case, and Most Likely EACs

4. UB Analysis

- Explain the content of the UB balance and changes within the reporting period

The IPMR DID requires that the narrative report follow a particular sequence. First is the Contract Summary which includes significant changes that could impact technical, schedule, or cost objectives of the project.

Second is the Formal Reprogramming Analysis, if applicable. It would contain a discussion of the Authorization, Reason, and Mechanics in implementing the Over Target Baseline and/or Over Target Schedule.

Third is the EAC Analysis where explanations are provided regarding the assumptions and methodologies used to develop the best case, worst case, and most likely EACs.

Fourth is the Undistributed Budget Analysis which includes an explanation of the content of the UB balance and changes to UB within the reporting period.



5. MR Analysis

- Explain the sources and uses of MR change
- Identify the WBS elements where MR was allocated

6. IMS Discussion

- Top 3 Critical and Top 3 Driving Paths; Total Baseline Variance
- Changes between Baseline & Forecast duration of Schedule Margin
- Changes to the Task Activity Codes or Data Dictionary
- Internal Schedule Health Analysis results

The fifth item of the Format 5 reporting structure is the MR Analysis. This includes the allocation of MR, as well as the WBS elements receiving the MR and the reasons for the application.

The sixth item is the Integrated Master Schedule discussion. This includes the Top 3 Critical and Top 3 Driving Paths, the Total Contract Baseline Variance, Changes between the Baseline and Forecast duration of Schedule Margin, Changes to the Task Activity Codes or Data Dictionary, and lastly the Internal Schedule Health Analysis results.

Format 5 – Reporting Structure



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- 7. Format 3 Discussions - Significant changes, phasing, or totals**
- 8. Format 4 Discussions - Significant variances and shifts**
- 9. Cost and Schedule Variance Analysis**
- 10. Supplemental Discussions**
 - IBR Dates completed or proposed in next 6 months
 - Schedule Risk Assessment (SRA) results, if any, in past month
 - Assumptions, results, actions, and impact on EAC
 - Contractual De-scopes, if any, and how reported
 - G&A and Cost of Money explanation of add or non-add

To continue on, the seventh item in the Format 5 reporting structure is the Format 3 Discussion which includes reasons for significant shifts in time phasing of the PMB, changes in total budget, and content changes of Authorized Unpriced Work.

Number eight is the Format 4 discussion which includes explanations of variances between actual and projected staffing for the prior month, and significant shifts in time phasing in the current and future periods.

Number 9 is where the cost and schedule variance analysis results are provided. This includes addressing the problem, cause, impact, and corrective actions required and/or planned for each reported variance.

And the last one, number 10, is for supplemental discussions. As a minimum, this is where the contractor will list the dates of all Integrated Baseline Reviews completed, and the proposed dates for any IBRs anticipated in the next 6 months. Also required are the results of any Schedule Risk Assessment (SRA) completed during the past month. This should include any changes to the schedule or to the EAC as a result of the Schedule Risk Assessment, and a discussion of any descope of the contract that occurred and how the de-scope is reported. Finally, the contractor should explain whether 'G and A' and 'Cost of Money' entries are 'add' or 'non-add' to the WBS elements. 'Add' would mean the costs are not included in Block 8.a. WBS elements. 'Non-add' would mean that costs have been included.



- **Defines minimum level of subcontractor integration in prime contractor IMS**
- **Definition of Schedule Margin & SVTs included**
- **Requires disclosing of justification for Leads, Lags and most constraints**
- **Defines minimum fields in IMS**
 - Some were part of 2005 DID with additions
 - Definitions updated/clarified in various cases
 - Must support Government sorting and filtering requirements
- **Explains when SRA is required and how it is reported**

The format 6 does not have a form but rather is the contractor's Integrated Master Schedule and is delivered in its native format.

Major changes from the former IMS data item description include:

A defined minimum level of subcontractor integration in the Prime's IMS, definition of Schedule Margin and Schedule Visibility Tasks (SVTs) included in the IMS, and the required disclosure of the justification for Leads, Lags and late constraints. It defines minimum fields in the IMS; these are listed on a following slide. Some of the fields were part of the 2005 IMS DID but with additions. Definitions were updated and/or clarified. Another major change is that the data item description explains when an SRA is required and how it is reported. The fields can be provided in the IMS with any method that allows for Government sorting and filtering.



- **Consistency with Format 1 Addressed**
 - WBS numbering system in the IMS must be consistent with Format 1
- **Critical & Driving Paths**
 - Includes definition that tasks with “0” or negative total float are not by default the critical path
 - Driving path and interim milestones defined (not in 2005)
 - Excessive constraints and incomplete, incorrect, or overly constrained logic shall be avoided
- **Relationships & Float**
 - All non-constrained discrete tasks/activities/milestones shall have at least one predecessor and successor, except the start and end of the project

Other information worth drawing attention to is that the IMS’s consistency with Format 1 is addressed in the DID, which states the WBS numbering system in the IMS must be consistent with the Format 1 WBS structure. Schedule Margin is defined as allowed before project events.

Critical & Driving Paths include the definition that tasks with zero or negative total float are not, by default, the critical path. The driving path and interim milestones are now defined – they were not in the prior IMS DID. Excessive constraints and incomplete, incorrect, or overly constrained logic must be avoided.

Regarding Relationships and Float, all non-constrained discrete tasks, activities, and milestones must have at least one predecessor and successor, except the start and end of the project.

IMS Minimum Data Fields



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- 1. Control Account/Work Package Identification**
- 2. Subcontractor Task Identification**
- 3. Justification of Lead, Lag, Constraint**
- 4. Earned Value Technique (EVT)**
- 5. Risk Mitigation Tasks, as applicable**
- 6. Critical Path and Driving Paths**
 - If not identified by software

Minimum data fields in the IMS include the following:

Number 1 is Control Account and Work Package Identification. The contractor must identify effort associated with the work package or control account. This may be an individual field or unique task identifier.

Number two is Subcontractor. The IMS must identify the tasks that are unique to the scope of a major supplier, if any. Subcontractors with an EVM flow-down requirement must be identified separately, if applicable.

Three is Justification of Lead, Lag, and Constraint. The IMS must have a field that contains a summary justification of lead, lag, or constraint. This requirement may be met with a code defined in the definition table or by individual notes on each applicable task.

Four is Earned Value Technique. The IMS must identify the EV BCWP technique if the schedule is used to directly status the EVM tool. As a minimum, if Level of Effort (LOE) or Planning Packages (PP) are in the schedule, they must be identified within a field.

Five is Risk Mitigation Tasks. Items that came from the risk register and include authorized risk mitigation activities must be identified, as applicable.

Number Six - the Critical Path and Driving Path shall be identified. These identifiers are either automatically created by the scheduling software or custom fields that indicate/flag each task on a driving or critical path.

IMS Optional Fields with Definitions



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- **Schedule Visibility Tasks (SVTs)**
 - Content and labeling restrictions
- **Lead/Lag**
 - Real requirements and not to manipulate dates
- **Constraints**
 - Justify late type constraints and early type beyond 20 days
- **Schedule Margin**
 - Location and naming conventions
- **Task/Activity Codes and Data Dictionary**
 - Defines contractor fields and content, delivered infrequently

There are optional fields that if used, need to be used correctly; none are required in the schedule.

A Schedule Visibility Task is a non-resourced external task that could be a milestone and is represented as a task for network calculation. An example would be a DOE task that is necessary for a contractor task to be started or completed. If these items outside the scope of the project are in the IMS, they need to be labeled in a particular way. The reason is so that the DOE can remove them before conducting schedule health checks.

Leads are discouraged as negative time is not demonstrable. Leads and lags should not be used to manipulate dates. All uses should be justified in a notes field in the IMS.

All late date constraints need to be justified. Typically these are: Start–No-Later-Than, Finish–No-Later-Than, Must-Start-On, and Must-Finish-On. Early type constraints (the others not previously listed) should be justified if the constraint date is beyond 20 days.

Schedule Margin is a buffer task with no resources. It is to manage inherent schedule duration risk. If used, it is placed as the last task before a contract event or end item deliverable.

Next are the Task Activity Codes and Data Dictionary. This is the “map” so that DOE can understand the content of the IMS. P6 has many special purposes text and numeric fields. Without the “decoder ring” much of the filtering capability within the IMS is lost.

Format 7 – Electronic History and Forecast File



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- **Defines the time-phased historical and future cost data**
 - Historical time-phased actual costs (ACWP)
 - Future time-phased Estimate to Complete (ETC)
 - All WBS elements
 - Must reconcile with Format 1 Block 8 Column (15) Estimate at Completion (EAC) for same reporting month
- **Provides supplemental historical and time-phased cost information, by WBS, generally at the same level as Format 1**
- **Electronic submission to PARS II, DOE's central repository**

Format 7 is the electronic submission of time-phased cost data. The submission consists of historical, time-phased actual cost of work performed (ACWP) and future time-phased estimate to complete (ETC) for all WBS elements at the same reporting level as the Format 1 or lower when specified.

The Format 7 must reconcile with the reported Estimate at Completion in the Format 1, Block 8, Column 15 for the same reporting period.

The data provides supplemental historical and time-phased cost information for use by DOE for analysis and project management purposes. Electronic submission is required via PARS II, DOE's central repository.

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Earned Value Management (EVM) is a systematic approach to the integration and measurement of cost, schedule, and technical (scope) accomplishments on a project or task. It provides both the government and contractors the ability to examine detailed schedule information, critical program and technical milestones, and cost data.

- EVMS Surveillance Standard Operating Procedure (ESSOP) - 26 Sep 2011 (pdf)
- EV Guideline Assessment Templates - (MS Word)
- DOE EVMS Cross Reference Checklist - (pdf)
- DOE EVMS Risk Assessment Matrix - (MS Word)
- Formulas and Terminology "Gold Card" - Sep 2011 (pdf)
- Slides from the OECM Road Show: Earned Value (EV) Analysis and Project Assessment & Reporting System (PARS II) - May 2012 (pdf)
- DOE EVM Guidance

EVM TUTORIALS

Module 1 - Introduction to Earned Value (pdf 446.86 kb) July 17, 2003

This module is the introduction to a series of online tutorials designed to enhance your understanding of Earned Value Management. This module's objective is to introduce you to Earned Value and outline the blueprint for the succeeding modules. This module defines Earned Value management. It looks at the differences between Traditional management and Earned Value management, examines how Earned Value management fits into a program and project environment, and defines the framework necessary for proper Earned Value management implementation.

http://energy.gov/management/office-management/operational-management/project-management/earned-value-management

Career Development Program

Real Estate

History

This concludes the IPMR Data Item Description discussion. For more information regarding any of the items we have discussed in this Snippet, please refer to the IPMR DID.

For information relative to EVMS procedures, templates, helpful references, and training materials, please refer to OAPM's EVM Home page. Check back periodically for updated or new information.

Thank You

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