

Panel Discussion: Introduction to the DCMA Data Driven Analysis

Using the UN/CEFACT XML Schemas, DoD Data Exchange Instructions to Capture Data

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Background - UN/CEFACT XML Schemas

- **UN/CEFACT XML – International standards organization to facilitate establishing open source, vendor neutral XML schemas**
- **Defined schema for exchanging project management related cost and schedule data**
- ***Single* base schema:**
“CostScheduleReportDocument”
 - Select the applicable data element building blocks to convey desired information
 - Designed to capture source data at desired level of detail – not designed to match paper based report formats (DID formats)

Background – DoD Data Exchange Instructions (DEIs)

- **In addition to the base schema, need to explain how to use the schema to support a given need**
- **Result: set of three DoD DEIs designed to support the requirements identified in the IPMR DID (and older CPR, IMS DIDs) and to submit data to the EVM CR**
 - IPMR Cost Guideline (CPR or IPMR Formats 1-4, can support 5)
 - IPMR Schedule Guideline (IMS or IPMR Format 6)
 - IPMR Historical and Timephased Cost Guideline (IPMR Format 7)
- **DEIs baselined September 2013, no further changes, only clarifications and notes posted on the DCARC EVM CR web site**
 - Commercial off the shelf vendors support these DEIs, selected contractors have also implemented for in-house toolsets

NOTE: The IPMR DID governs the content of the DEIs

- **Initial pilot pulled schedule and cost data from contractor's source applications – used Excel spreadsheets, Access database, one-off data extract/import design for a specific set of tools**
 - Problem: quickly discovered contractor pilot #2 did not use the same toolsets (neither will any other contractor)
 - Can't scale, share, or maintain a piece-meal one-off approach
- **Industry recommended DCMA consider the use of the XML schema and DEIs already in place for the IPMR DID, EVM CR**
 - Need a standard set of vendor neutral data elements – DCMA only needs to develop code once to capture/read the source data from contractors (like the EVM CR)
 - Contractor toolsets (COTS or in-house) that support the EVM CR can support DCMA needs

- **July 7 PARCA meeting with DCMA to review potential strategy**
 - DCMA proposed implementing a broader use of the base schema (enable more data elements) using one DEI instead of the current three DEIs (merge the two different business need scenarios)
 - Conclusion: DCMA to start with the existing Format 6 DEI (data at lowest level already) and the Format 7 DEI (time phased cost data at WBS or CA level as specified for Format 1)
 - No desire to disturb the existing set of DEIs in place for the EVM CR
- **DCMA has categorized their list of data analysis tests/metrics:**
 1. What could be automated using the existing DEIs
 2. What could be automated if the DEIs had the right information (i.e., open up use of existing schema data elements to get detail data or expand the use case for other related data)
 3. Which ones are not relevant anymore given the design of the DEIs (example: if getting detail data, don't need to compare summary data to detail data, so those checklist items would go away)
 4. Which ones cannot be automated

- **What to be prepared for:**
 - Use case scenarios for the EVM CR and DCMA compliance/surveillance reviews will start to merge
 - One set of common DEIs to support both business needs
 - Series of proposed changes to the DEIs (incremental)
 - Format 7 at the work package level
 - Format 6 – additional data elements opened up for structures and use of code list, capture schedule baseline instance file
 - Format 5 – standardize data elements captured
 - Expand use to capture additional content – example: change log content
 - DCMA will need to revisit their tests/metrics list