



The Department of Energy's Project Reporting and Assessment System (PARS)

Empower Charts and Reports, Module 4 PARS User Basic Training

1

Welcome to the fourth of six sessions which comprise an introduction to the Department of Energy's Project Reporting and Assessment System (PARS). The analysis and reporting capabilities of PARS provide decisions makers at all levels with tools to best manage these projects over their lifecycle as well as a repository for data and documents for projects reporting to PARS in accordance with DOE Orders.

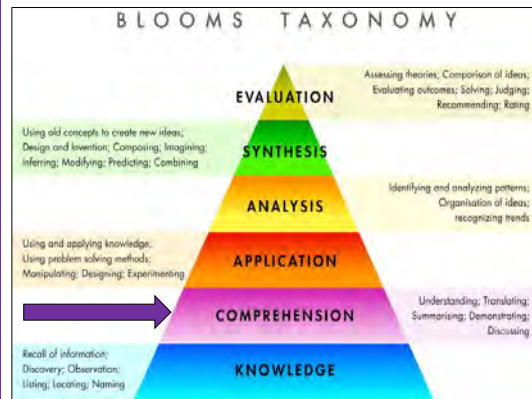


Training Objectives

- Understand the basic organization and operations of the PARS.
- Understand the document management system of PARS
- Understand user roles in PARS
- Understand Basic Layout and Organization of Encore Analytics Empower as part of PARS
- **Use Empower views, charts, reports and dashboards**
- Use Empower Filters and pre-filters to organize data
- Use DOE specific reports
- Customize Encore Analytics Empower for use each month

AT COMPLETION - EARN 6 CEU/PDUS

- Federal Employees – Will be added to your records
- Contractor Employees – Certificate will be emailed



This fourth session will continue to focus the fifth training objectives and the user gaining an understanding of charts and reports in Empower in PARS. When you complete all six sessions of the PARS user basic course, you will earn 6 CEUs. Any session may be repeated as a refresher as needed in the future. There will be questions through out the training and the user will need to achieve a passing score being 70% or better to successfully complete this course.



The EPASOP

The EPASOP also covers a discussion of select charts and reports. For each of the Dashboards references in the EPASOP they bring up a Chart and Report in addition to the views.

DASHBOARD	CHART	REPORT	VIEW
Data Validity	DOE Data Validity	Validity	DOE Data Validity
Schedule Health	DOE Schedule Health	Schedule Assessment	DOE Schedule Health
Variance Analysis	DOE Variance Analysis	Six Period Summary	DOE Variance Analysis
Trend Analysis	1. DOE Trend Analysis 2. Schedule Execution Indexes 3. MR-UB Trends	1. Earned Schedule 2. BCWS Volatility	1. DOE Trend Analysis 2. Earned Schedule
Forecast	DOE Forecast (EAC to IEACs)	1. Six Period Summary 2. AI Narrative Report (EAC Analysis)	1. DOE Forecast 2. CPI vs TCPI EAC

AY7

Other reports and charts will also be discussed along with Gantt Charts/Views.



The EPASOP also highlights the reports and charts to be used in analysis. In addition, we will look at the basics of charts and reports in Empower and other charts and reports not identified in the EPASOP.

The charts on the image are the fundamental charts and reports and there are many more charts that should be used depending on the project.

Slide 3

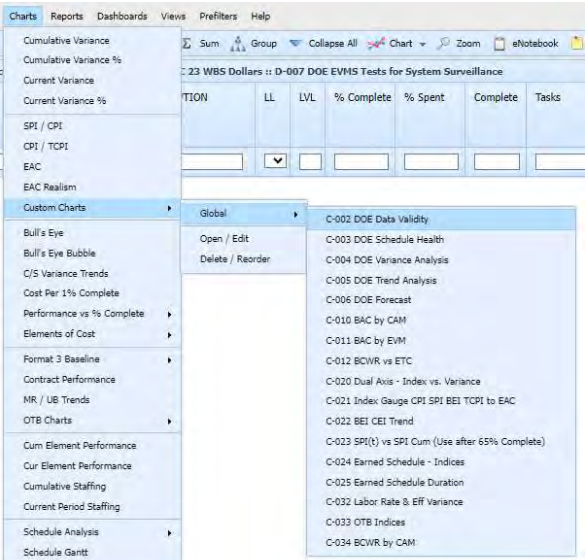
AY7

Update EPASOP, remove 1/2 from all, only show the chart & report that is shown for each dashboard
Young, Amber, 2/16/2024

Overview of Charts

- Variance Analysis Charts
- Indices and EAC Charts
- Trending Charts
- Custom Charts (DOE Charts)
- Specialty Charts
- Element of Cost Charts
- Level 1 Charts
- Cum/Cur Element Performance Charts
- Schedule Analytics





In Empower, there are many standard charts provided. The list on the left of this slide shows the broad categories as provided by Encore Analytics. We will also take a look at custom charts DOE has placed in the Global area.

After looking at views in the last lesson, you should be able to see how charts are aligned with the views in analysis. Variance charts to align with variance analysis. Indices with trends, EAC with Forecast analysis and so on.

The Specialty Charts help look at very specific goals. These and the element of cost charts can be useful in helping look at parts of the project to help see for each active element you select. This is a key point, with the exception of Level 1 Charts, the rest all update to the active element you select in the sort window view. This is a powerful tool to analyze your project.

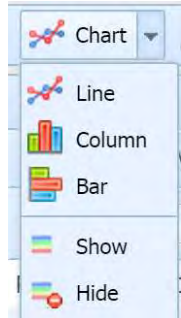
The Level 1 charts include contract performance and MR/UB Trends that do not work with each element (they only show top level data).

There are other charts that DOE is evaluating to add – so look for new ones to show up and I would challenge you to try them out and see what they do as they come online.

Overview of Charts

- **Chart Options**
 - **Chart Type (Line, Column, or Bar)**
 - **Zoom/Expand all periods**
 - **On/Off Toggle Data Lines**
 - **On/Off Toggle Data Color Coded Backgrounds (Show or Hide)**
 - **Zoom into specific periods**
 - **Show Legend Data**



5

Before we dig into the charts, let's look at some of the tools to operate the charts. Also, here will take time to see what is available and in the advanced course you will work to interpret what the data is telling you. (THIS DEMO SHOULD BE A SCREEN CAPTURE – Next several slides are best demonstrated)

On the Toolbar there is a Chart link. For select charts, if you click on this (not the arrow) it will cycle the chart between line, column or bar. If you select the arrow, you can select line, column or bar. For most basic line charts this works. For more complex charts, you do not get the flexibility to change this. On this same menu you will option to show or hide colors. This aligns with trends colors with the chart (Blue, Green, Yellow, Red). We will take a look at this in a minute.

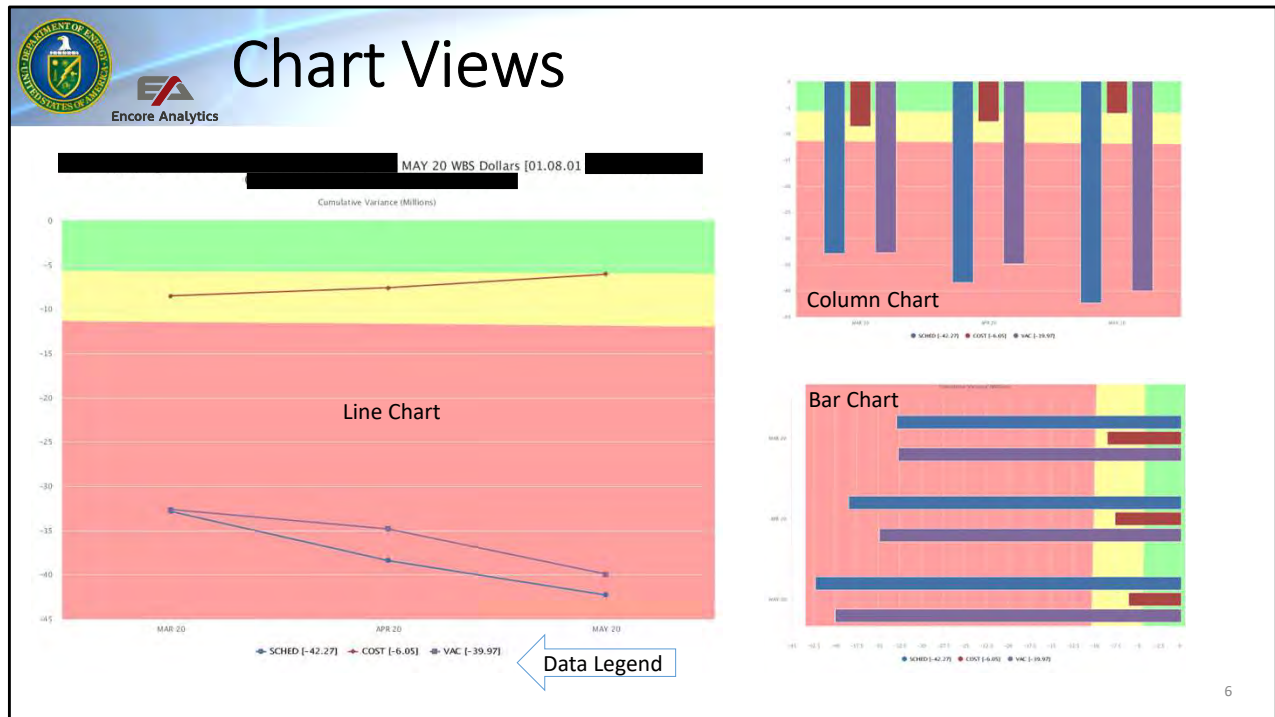
The Zoom / Expand toolbar items will take a chart that has one year of periods and expand that chart to the full length of the schedule for the project. Again this only works for some of the charts and if you select one that does not expand, the tool is not broken, it is a chart that just is not designed to expand.

When in a chart, the data lines can be turned off and one by clicking on the legend for each item. This can help you focus on specific item you want to look at.

The chart can also be zoomed into. You do not use the Zoom tool, but instead left click and hold to draw a box around the periods you want to look at. There will be a reset button on the chart to return to the full view.

Under the Options Menu there is an option to hide/show legend data. The chart legends will always show, but this will turn off/on the latest period values for each legend item shown.

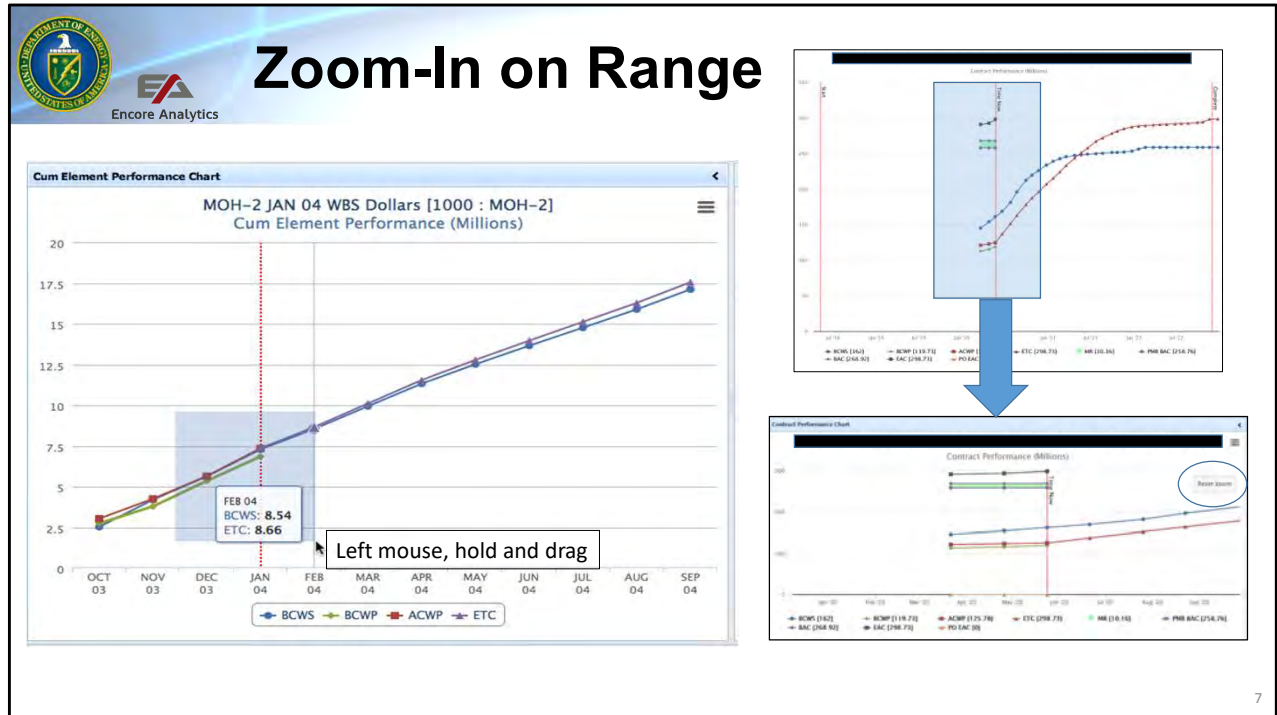
Lastly, there are multiple ways to export the chart or the Chart data into Excel to make your own charts.



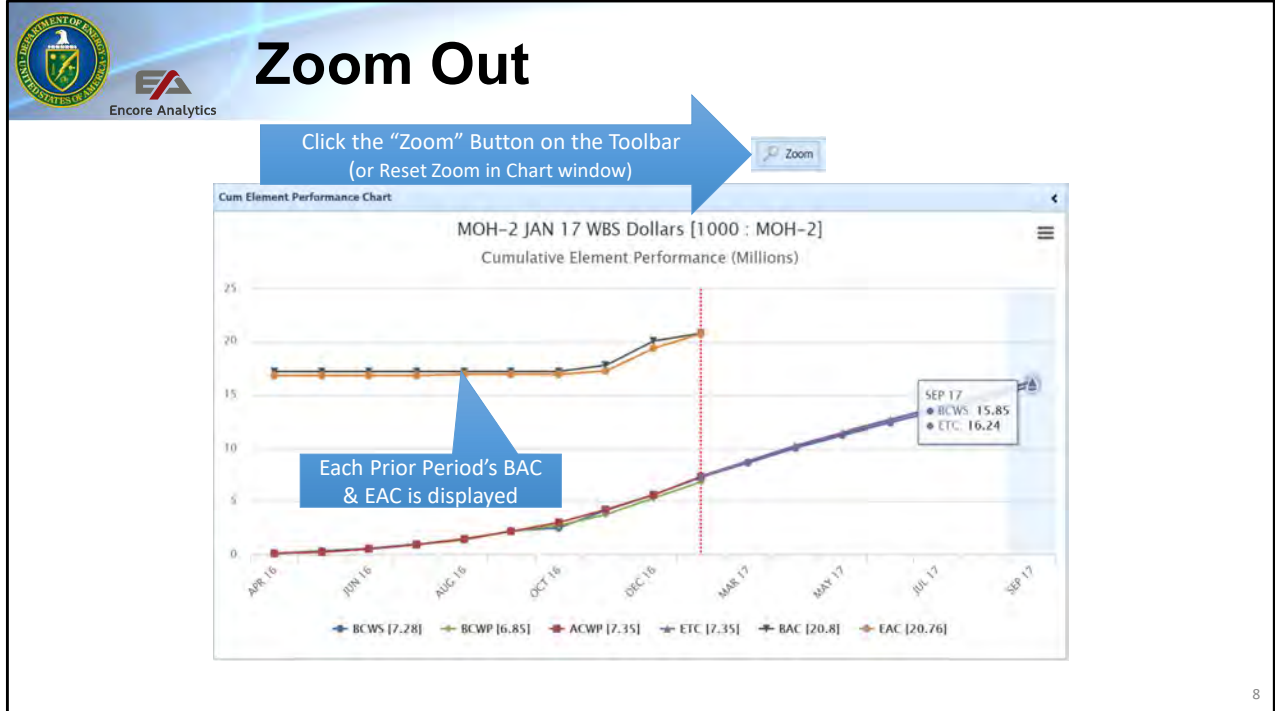
The cumulative variance chart helps demonstrate trend colors turned on and the three options, Line, Column and Bar Charts. The data legend with legend data showing for the most current period is below the chart. You can turn an item in the legend on and off by clicking on it. Using the Chart button on the tool bar lets you select which view you want and if you want background color or not.

The background colors are thresholds which can be seen in the following charts

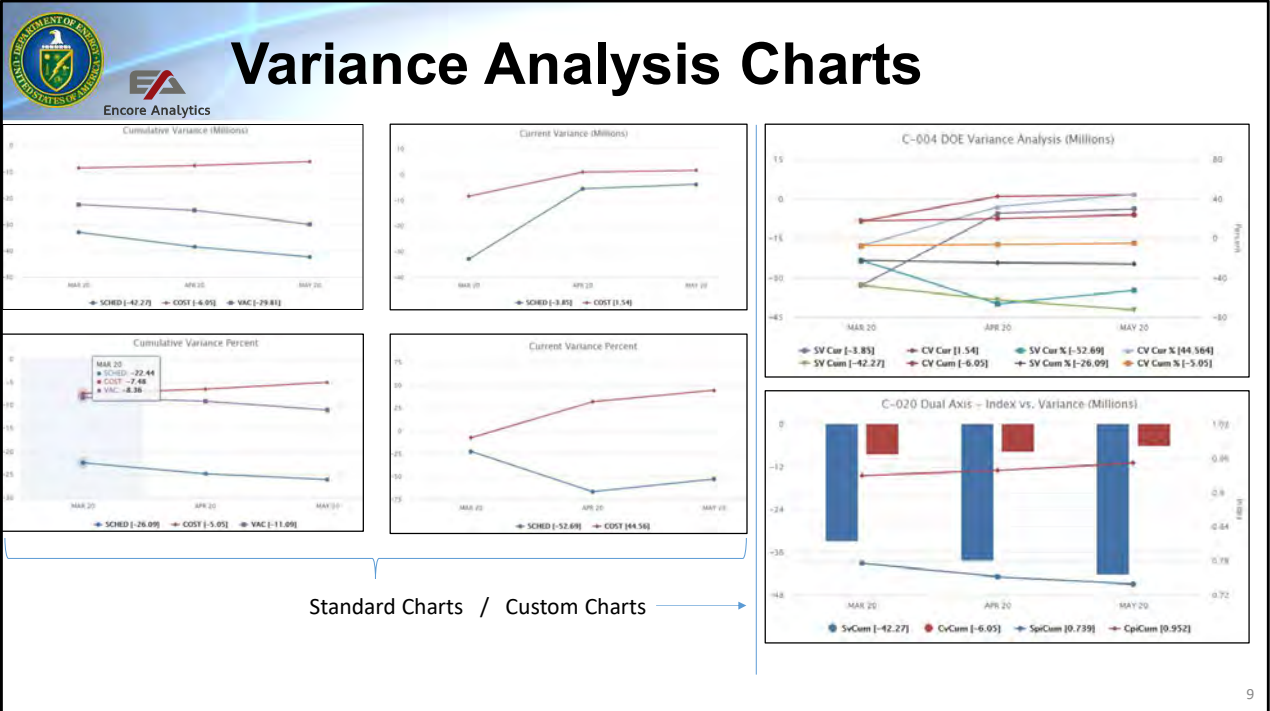
- Cumulative Variance
- Cumulative Variance %
- Current Variance
- Current Variance %
- SPI/CPI
- CPI/TCPI
- Bull's Eye
- Bull's Eye Bubble



To zoom in on a range in a chart, use the left mouse button, hold and drag the box. Please note, the Feb 04 data box. When you left click most likely an information box will pop up. You will need to make sure the cursor is not in this information box when you start to generate the zoom window. Once you zoom in, a box that says Reset zoom will appear in the chart, use this to return to the prior range (before you zoomed in).

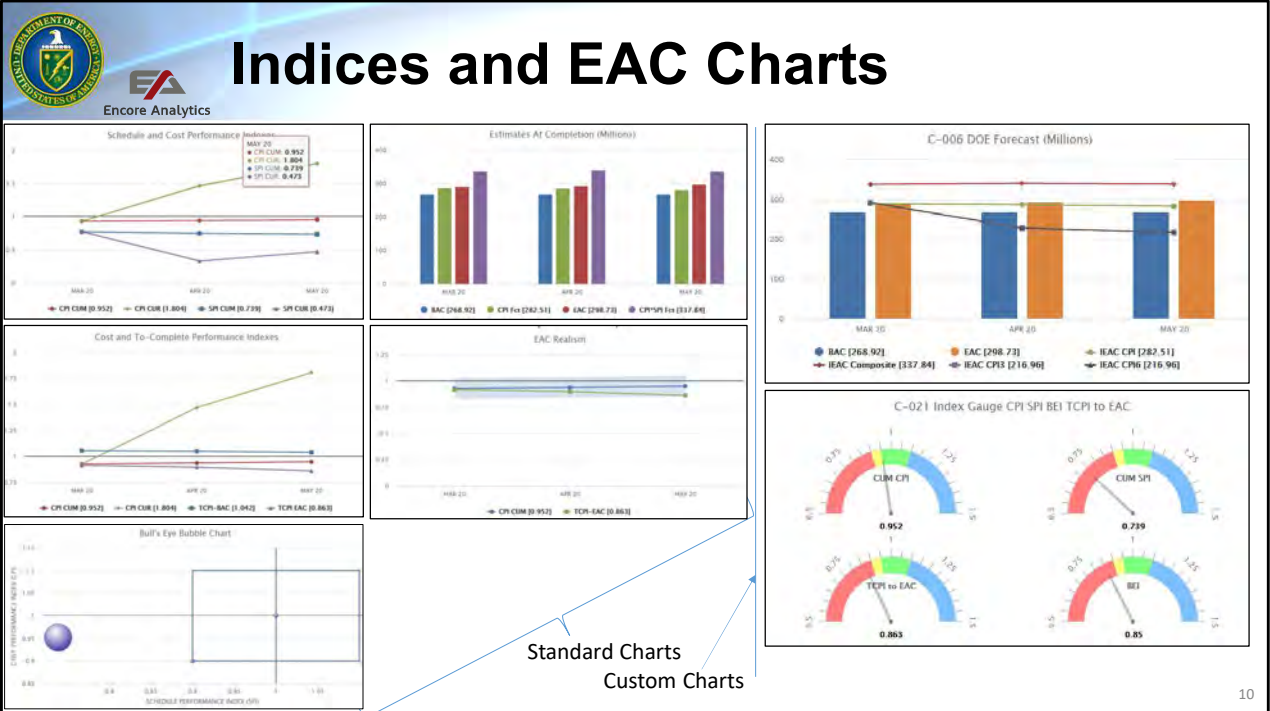


Several charts will display one year of data. If it is a chart such as above, and you want to expand beyond one year to the bounds of the project, then try the zoom button. If there is data (more than a years worth) and this is a chart that can expand, it will. Select the Zoom button again to return to the default range.



Looking at the category of variance analysis charts, there are four standard charts in Empower and two custom charts DOE has added. In the advanced course we will dig in to the result to understand what the charts are telling, but you can see from here, that for this project, there are 6 different ways to look at variance data. Remember that you can do this for each and every active element, which means top level, by control account, and by work package. This lets the user dig in to the element that contributes the most to a variance. Remember in the sort window, you can sort by variance and have the most impactful quick be identified at the top for further analysis.

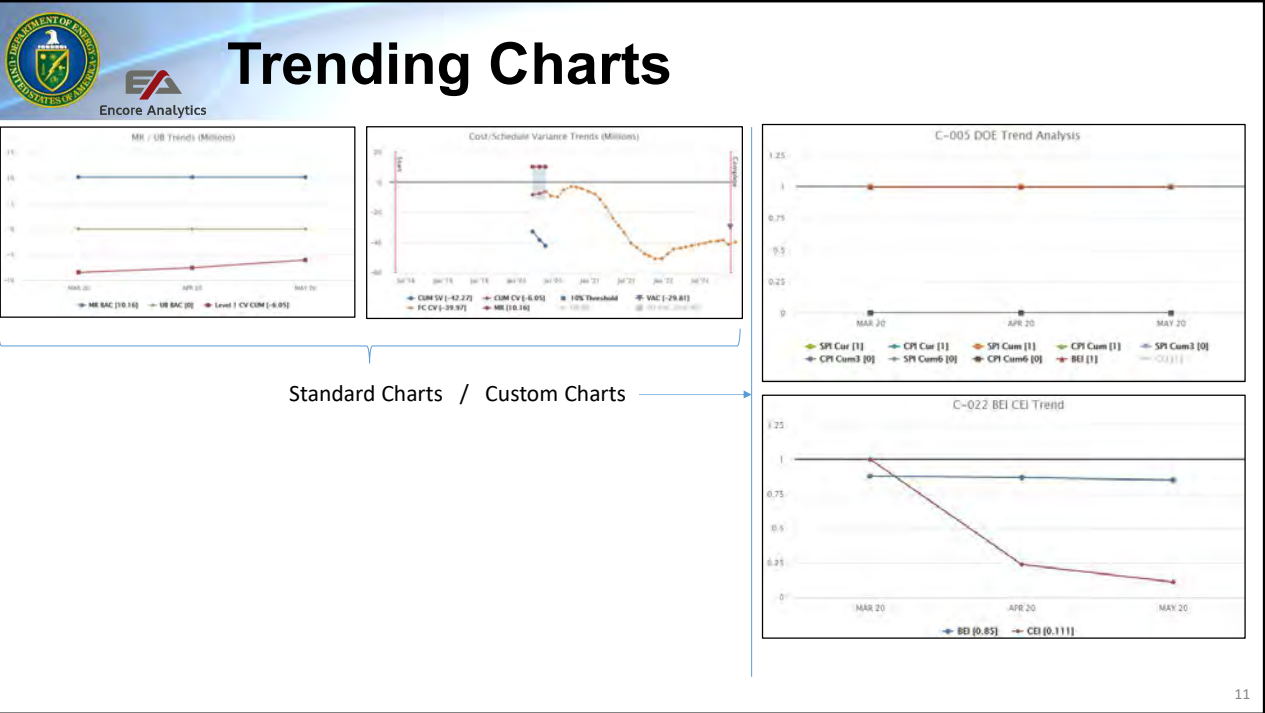
The DOE Variance Analysis Chart includes schedule and cost variance for both each current period and for cumulative data. This is presented in both dollars and percent with two y-axis. Remember you can turn each of the 8 data types on and off by left mouse clicking on them in the legend.



Here are some of the Indices and EAC charts, showing five standard Empower charts and two custom charts DOE added. In forecasting, the indices are a key part to looking at current performance over time as a way to evaluate the users understanding of how the contractor will do in the future. The EAC is then a critical output of the EVMS to communicate what the project should require to complete. Again, remember that you can do this for each and every active element, which means top level, by control account, and by work package. This lets the user dig in to the elements that contribute most in terms of trending and to look at EACs. Remember in the sort window, you can sort and filter by indices, EAC, or any column to help find the elements for further analysis.

Also note that you have a variety of charts, line, bar, dial, bulls eye, and more. This is designed to support placing data into the most useful format for the user to communicate what the data in Empower is showing.

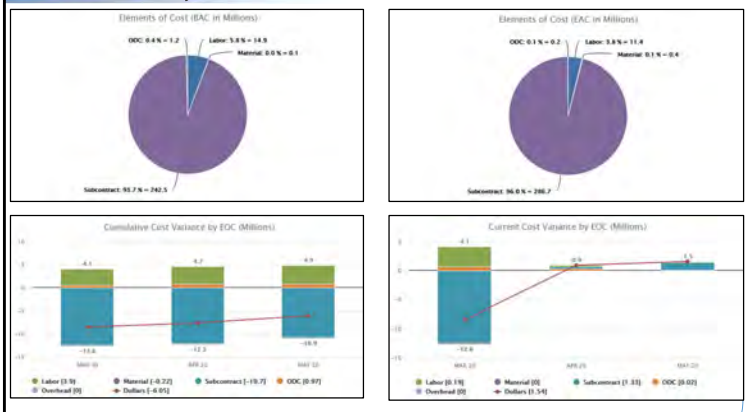
There are additional indices and EAC charts to consider in Empower.



Along with indices, trends are useful in looking at past and current performance in terms of understanding how the contractor will do in the future. Please note that some of the DOE charts under custom charts are used in conjunction with dashboards and the remainder of charts are available for the user to review to identify issues, help determine magnitude, and to help present this information in ways that different leaders can consume.



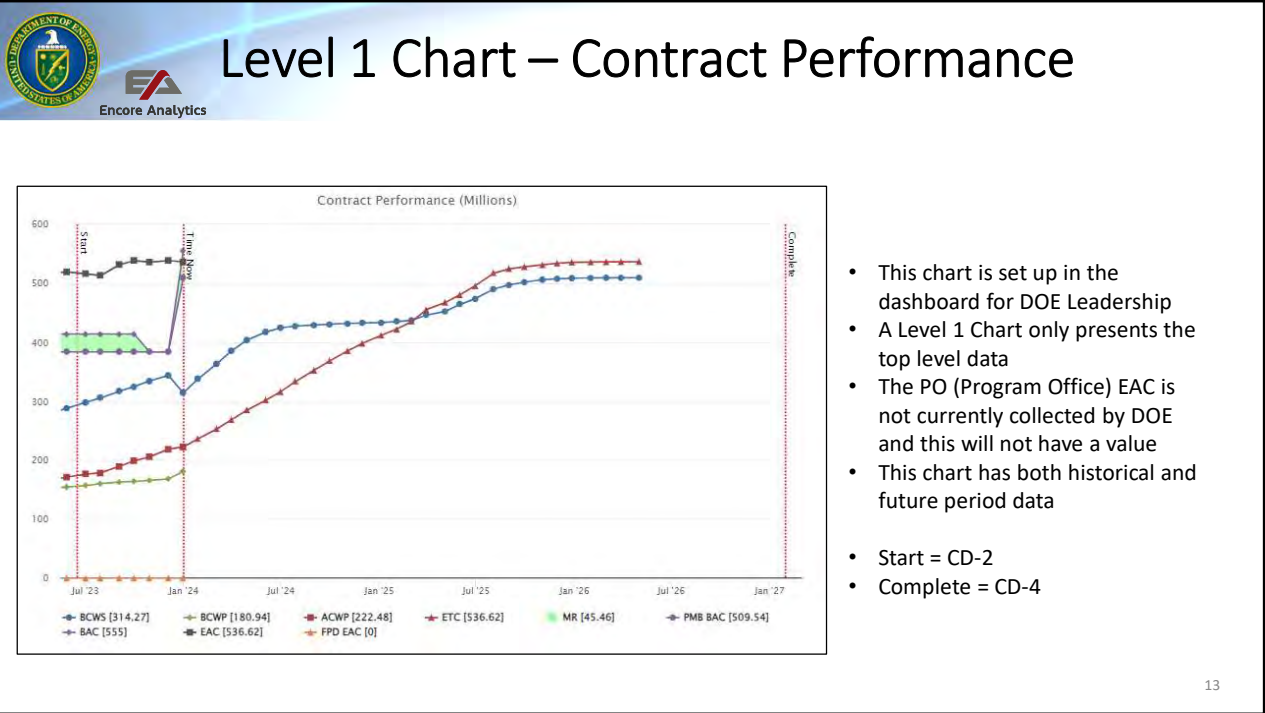
Element of Cost Charts



Currently
No Custom
Charts

Standard Charts / Custom Charts →

Element of cost charts help see how projects are broken out by Labor, Material (which includes equipment), Subcontract, ODC, and DOE also allows indirect for those who have a separate category for this. These will only show broken out for each Active Element, if the contractor reports to this level. If using the MDB format, which does not support element of cost, these will not break out the elements of cost and will only show dollars.

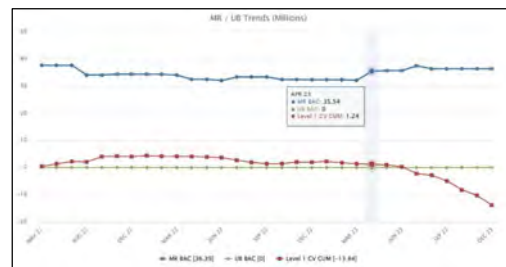
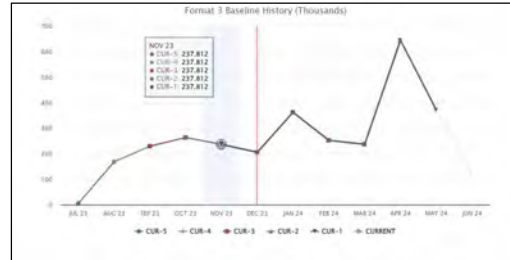
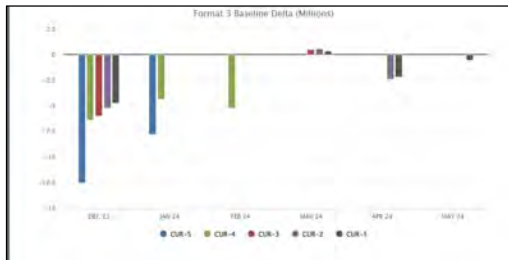


There are a couple Level 1 Charts, the Contract Performance Chart and the MR/UB Trends charts, and the Format 3 Baseline charts. In this case, note that DOE placed this chart on the Leadership dashboard as it can tell a story overall about the project. This chart provides a good snapshot in terms of history from the project start, which DOE uses CD-2 (when reporting requirements start) to Complete which is CD-4. The time now line is the status date of the reported data. In this example, there have been three period of data reported to DOE along with future data (BCWS and ETC). The ETC line ends at the same point where EAC does. This is an alignment check that should make sense. Remember that EAC, in this case, CAM EAC is ACWP + ETC + UB. If they do not align, then you would want to figure out why.

Empower has the ability for the FPD or Program to list what they believe the Contractors PMB EAC should be. Currently, DOE does not require the FPD or Program to do this, only to report what they believe the performance baseline total project cost estimate value should be each month, which includes cost above the PMB. If DOE choses to use this in the future, you will notice when the PO EAC line has a value other than 0.



Level 1 Chart – Further Examples



14

Additional Level 1 charts include Format 3 baseline charts and MR/UB Trends.

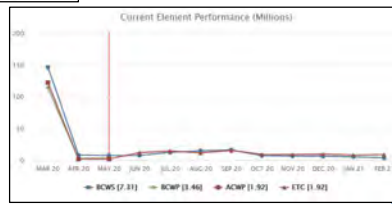
Format 3 Baseline delta displays the time-phased change in BAC from current period compared to prior periods, up to five periods prior.

Format 3 Baseline history shows the change in time phasing in terms of total BAC versus the delta, from current period to five prior periods.

MR/UB Trends shows the time-phased utilization of MR and UB, as well as the CV cumulative.



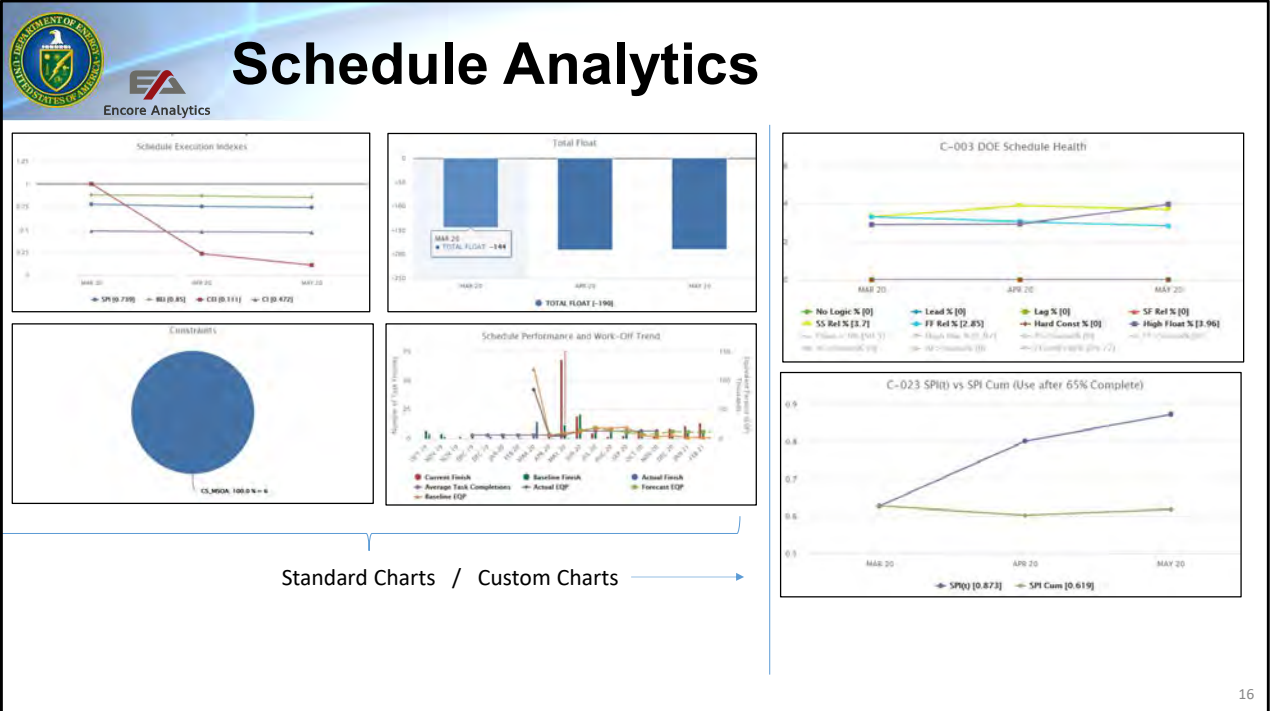
Cum/Cur Element Performance Charts



Standard Charts / Custom Charts →

Currently
No Custom
Charts

These charts works with any element to provide performance data over time, both current period and cumulative.



16

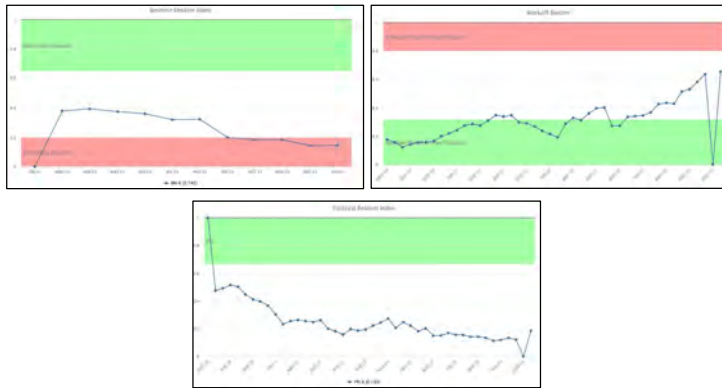
The schedule analytics charts are good to look at the health of the schedule and what is inside of schedule. The performance and work-off trend chart includes equivalent personnel and work forecasts as well as how many finished you have.

DOE Schedule Health is used as a standard chart with select DQIs on schedule.

In the bottom right, there is a chart which plots SPI based on time (earned schedule) against SPI Cum from the cost tool. This project shown is still too immature to make use of this which is better after the project is 65% complete.



Schedule Analytics/NRO



Charts

	FEB 10	MAR 10	APR 10
Number Count (C/Original)	2	1	16
Number Count (C/Comp)	28	8	31
30 Day Month Score	0.080	0.111	0.162
30 Day Month Score Average	0.080	0.088	0.148
30 Day Month Score Index	0.080	0.091	0.141
Number Count (M/Original)	18	2	15
Number Count (M/Comp)	14	9	13
Current Baseline Index	0.280	0.088	0.160
Current MFI Index Average	0.280	0.229	0.160
Current MFI Index Index	0.280	0.229	0.160
Number Count (H/Original)	12	1	11
Number Count (H/Comp)	14	1	15
Current Baseline Index	0.281	0.142	0.171
Number Count (L/Original)	1,141	1,168	1,211
Number Count (L/Comp)	1,254	1,308	1,315
Current Baseline Index	0.419	0.390	0.401
Number Count (C/Comp)	28	8	31
Number Count (M/Comp)	14	9	13
Number Count (H/Comp)	14	1	15
Number Count (L/Comp)	1,254	1,308	1,315

Schedule Execution Metrics

Current Baseline Index (CBI)
 The current period Baseline Index (CBI) is 0.281 compared to a previous value of 0.160. This is a 73% increase in the reporting period. Of those activities that are currently completed, the activities completed in this period are 14% of the total activities planned to be completed in the period. The activities that are currently completed in this period are 14% of the total activities planned to be completed in the period.

Current Baseline Index (MFI)
 The current period Baseline Index (MFI) is 0.229. This is a 14% increase in the reporting period. This represents the percentage of activities that are currently completed in the period. The activities that are currently completed in this period are 14% of the total activities planned to be completed in the period.

Current Baseline Index (H/Original)
 The current period Baseline Index (H/Original) is 0.142. This is a 14% increase in the reporting period. This represents the percentage of activities that are currently completed in the period. The activities that are currently completed in this period are 14% of the total activities planned to be completed in the period.

Current Baseline Index (L/Original)
 The current period Baseline Index (L/Original) is 0.419. This is a 14% increase in the reporting period. This represents the percentage of activities that are currently completed in the period. The activities that are currently completed in this period are 14% of the total activities planned to be completed in the period.

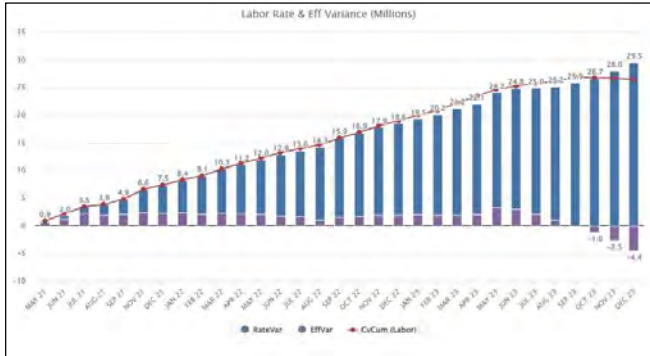
Reports

Empower provides information based on a National Reconnaissance Office led effort by the Navy Post Graduate School to look at baseline and forecast realism as well as workoff trends in terms of project success. Projects should target to be within the green and projects in the red generally do not complete without a over target baseline or over target schedule. Each point represents a six-month average. Those that are in the middle, between the green and red, generally have an opportunity to recover.

Within the advance course working examples will be considered.



Labor Rate & Efficiency Variance



Standard Chart / Report

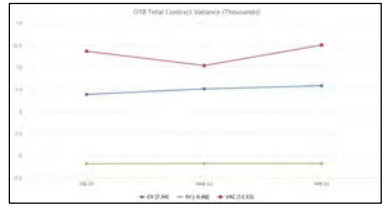
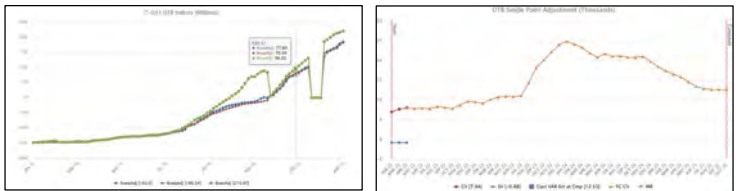
Labor Rate Analysis										
	BCWS	BCWP	ACWP	SV	CV	BCWR	ETC	BAC	EAC	VAC
Hours	111,406	105,922	91,583	-5,483	14,340	49,643	44,426	155,965	135,968	19,579
Labor Dollars	13,938,183	13,263,236	11,667,726	-474,947	1,605,510	6,364,336	5,784,238	19,627,573	17,421,995	2,205,608
Rate	125.11	125.22	127.29			128.20	129.81	126.17	128.11	
Rate Var					-154,433		-8,872			
Efficiency Var					1,737,188		608,970			
Total Labor Variance					1,605,510		600,098			

Cannot provide the material price and usage variance analysis chart, as not all material dollars are captured. Not able to track the definition in government reporting of material units and values for price and usage variance analysis.

An efficiency vs. labor variance chart is a graphical representation that compares the standard labor hours that should have been worked for the actual production level to the actual labor hours worked. This chart helps in identifying the variance between the efficient use of labor (as planned) and the actual labor used, enabling project managers to pinpoint areas of labor performance that deviate from the expected productivity standards. It's a tool for understanding whether labor resources are being utilized effectively and for making informed decisions to improve project labor management.

Labor Rate Analysis Report what planned labor rate was compared against what your labor rate is to date. Ex. Impacts EAC depending if burning higher than planned.

Over-Target-Baseline

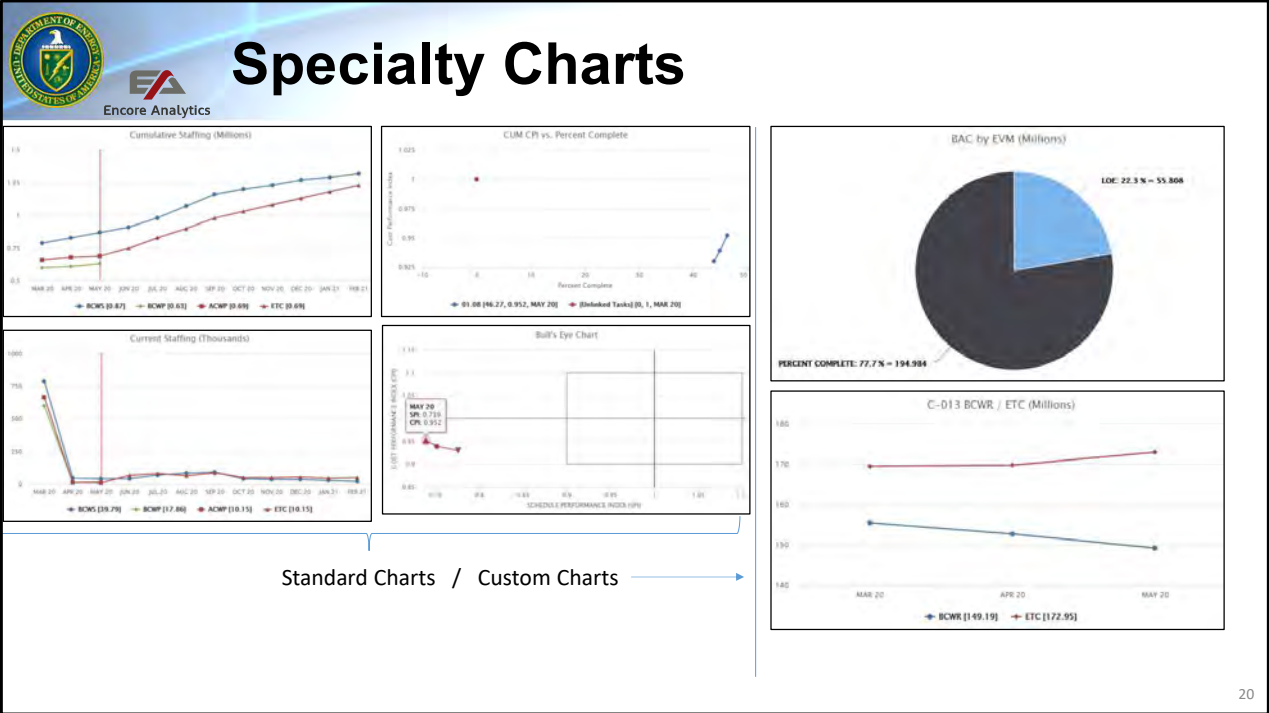


ITEM	APR 12	MAY 12	JUN 12	JUL 12	AUG 12	SEP 12	OCT 12
PCWP_L	7,875,821	8,088,852	9,872,251	8,882,252	8,124,347	12,774,262	8,342,184
SCWP_L	4,788,880	7,881,123	12,125,842	7,528,130	1,884,462	15,221,474	3,818,881
ACWP_L	6,043,758	7,889,224	11,767,375	8,119,228	1,889,381	8,792,586	14,861,222
CPI_L	0.913	0.947	1.228	0.917	0.181	0.890	0.918
CPI_C	1.931	1.988	0.586	0.868	0.862	2.746	0.573
SCWAS	179,889,446	0	0	0	0	169,842,168	192,194,282
SCWPA8	102,818,824	0	0	0	0	142,240,762	153,889,912
ACWPA8	169,279,810	0	0	0	0	124,628,882	169,229,772
CPIA8	0.750	0.000	0.000	0.000	0.000	0.752	0.786
CPIA8	1.828	0.000	0.000	0.000	0.000	1.894	1.818
SAC	430,875,740	431,332,828	431,332,828	431,332,828	431,332,828	431,332,828	431,332,828
SAC	398,972,429	399,452,868	399,452,870	430,455,811	430,762,441	399,452,822	402,791,521

Chart


Report

After an OTB is recorded in the system, this chart and report provides adjusted indices and views from the OTB point forward.



Here are a few of the other charts available. The staffing charts are new for DOE and are based on 156 hours per month per person. The BAC by EVM is a great chart to quickly see what the percentage LOE is on this project. Others will be more extensively looked at in the advanced training.

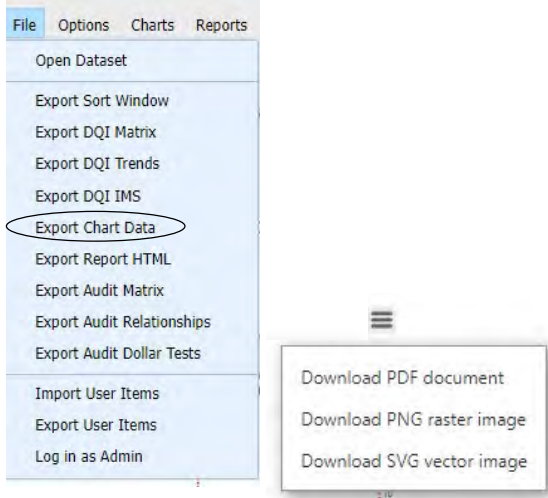
In moving to JSON, will move away from 156 hours per month and load actual calendars from each project.



Print or Save/Copy or Export a Chart

Encore Analytics

- Export is under File Menu – Export Chart Data. This provides the data used in the chart to make your own in a spreadsheet tool.
- Download options under the three bar box on the upper right of the chart.
- Save/Copy
 - MS Windows
 - IE8, Chrome, Firefox use .PNG or .EMF.
 - If IE9 or higher, use .SVG
 - Snipping Tool
 - PowerPoint works best with PNG – drag and drop
 - Mac
 - PDF



21


For charts there is the option to export the chart data into a spreadsheet and the option to download a chart image.

There is a difference. Under the File Menu is the option to export chart data. This is designed to go into a spreadsheet tool, like Microsoft Excel and provide all of the data needed to make the chart you are looking at – it does not make the chart, you still get to do that in the spreadsheet tool, but you have all of the data to do so.

For all charts, a user can download in the following formats, PDF, PNG, and SVG, by clicking on the three bar button in the upper right side of the chart. It is suggested to download a PDF and then print. These can be placed in most presentation tools and reports for sharing.

For the next type of chart we are going to look at, the Gantt Chart, you can export these as well using the Export Chart Data option under the file menu. If you export a Gantt chart, all of the schedule data is exported into a spreadsheet, not the image of the Gantt, only the rows and fields displayed.

A user with a Mac device will only get the PDF option.



Integrated Schedule Gantt View

- Schedule Activities Linked at Lowest Level of EV Data
- Graphic Gantt Chart
 - Create your own view (left of Gantt Chart)
 - Summary levels can be viewed
- For Task details, hover over Gantt bar or view task detail report
- Filter Schedule Data
 - Create your own Filter and associate it with a View
 - Can filter in the sort view as well
- Adjust Time Scale
- Supports Performance-Based Filtering
- There is a Gantt Chart under charts as well as in Views to allow for an external window

22

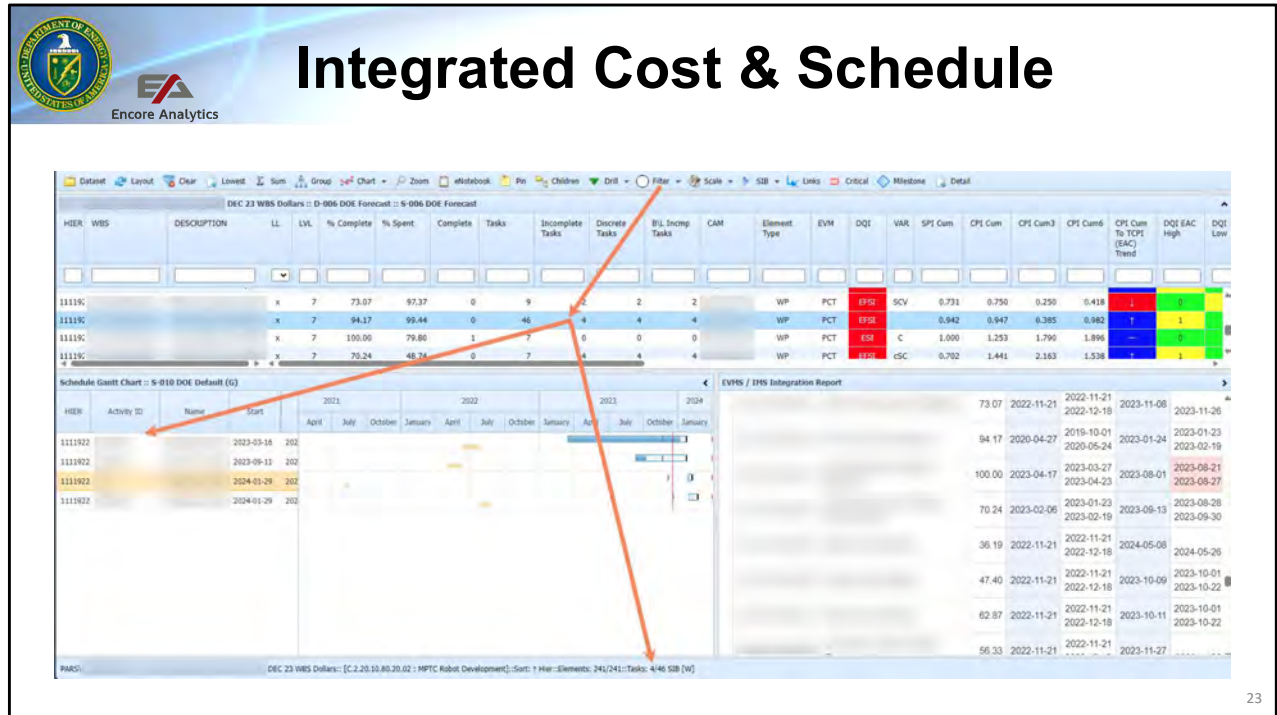
So lets next look at Gantt Charts.

Data is imported from, Primavera, Format 6 IPMR submission. As discussed prior, DOE does not have you directly upload to Empower, instead you upload to PARS and within PARS this data is placed into empower. DOE is set up to work with the MDB and CSV format data sets and currently EFCOG members are fairly exclusive on using Primavera P6 to provide data to these sets. If a contractor were to use another schedule tool they would need to make sure they could put data into the DOE format for submission.

For Gantt Charts there are some key points to make:

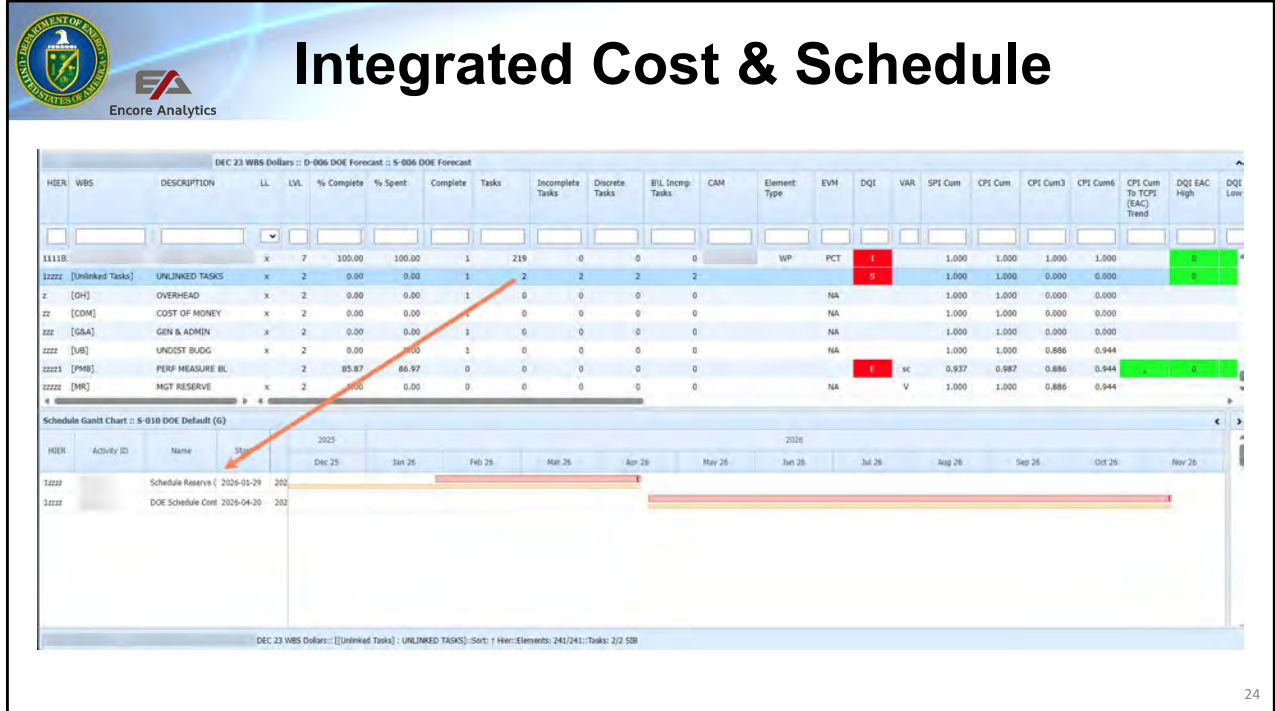
- Schedule activities (tasks) link at the lowest level of EV cost data provided to Empower. If there is not a cost – schedule link, Empower refers to this as an unlinked task. To be clear and Unlinked task in Empower does not refer to schedule logic, but to whether there is a link between cost and schedule. All unlinked tasks are set up to easily take a look at what does not have a relationship between cost and schedule. We will look at that in a few minutes.
- The view part of the Gantt chart (to the left of the chart) can be edited and you can have user views. When making Gantt views, recommend that you place a (G) at the end to help distinguish.

- Remember that when a Gantt Chart is visible, there are additional toolbar commands as well as task and link details. We will take a look at these next. The toolbar allows the user to adjust the time scale, conduct performance based filtering, select critical path activities and/or milestones and turn on or off links.
- There is a Gantt Chart option under charts which allows the user to place the Gantt in a separate window (will be discussed in the final lesson)

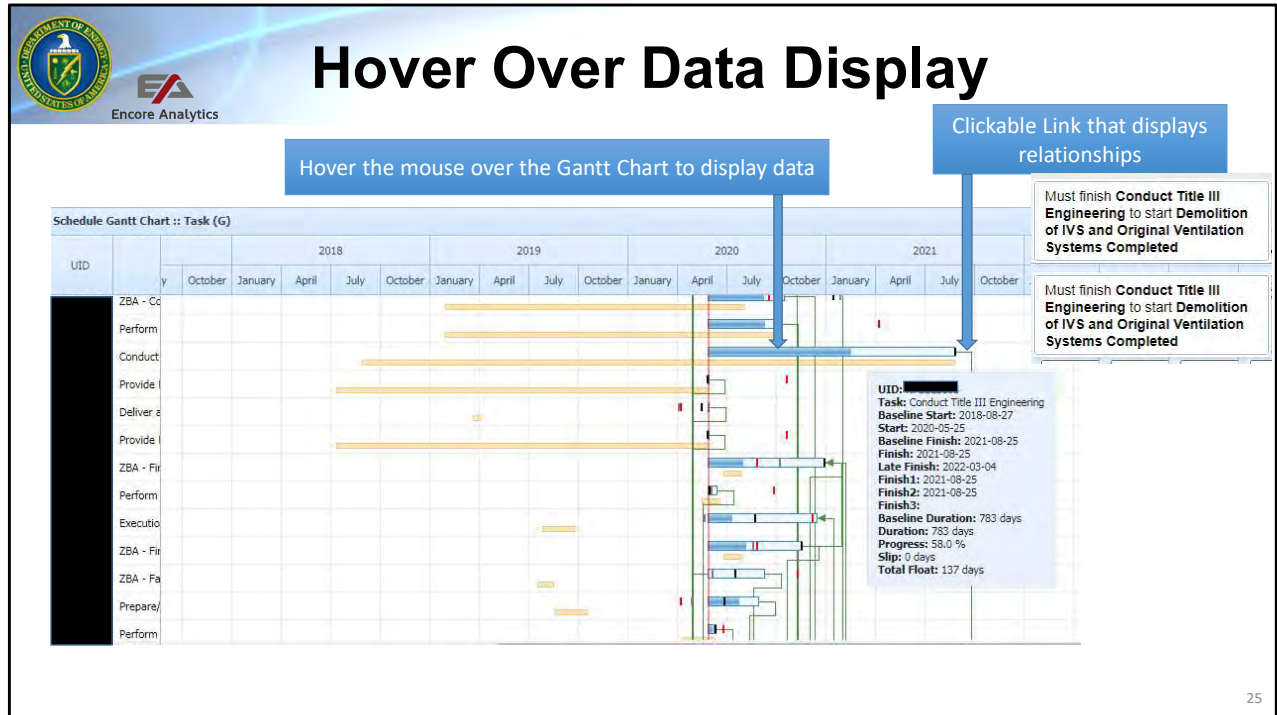


The idea that cost and schedule are integrated, lies in the linkage between the element chosen in the sort window and the activities linked to that element. This allows for analysis at a robust level, especially when looking to find what is really impacting performance. In the advanced course you will be able to work through several examples. A key point here is that user can look at the schedule in depth without a need for the scheduling software and more importantly, see the cost/schedule integration or lack there of.

In the sort view, when selecting an element the Gantt chart is updated to show only the tasks related to that element. You can further filter using the selection of Filter, for example White selection shown here displays in the Gantt only incomplete tasks related to the element selected in the sort view.





An additional important element to review for cost/schedule integration is the UNLINKED TASKS row in every project. Empower tracks all tasks that are in the schedule and not in the cost and collects them into this row. Clicking on this element gives you a quick look into where there are cost/schedule integration issues.



When you have a Gantt Chart up. Hovering over the activity provides a pop up table of information on the activity. Remember that setting the Gantt option to show late finish and show slips add more depth to the chart and in the data box pop up you also see information that helps generate this. Late Finish is displayed, Finish is the current period finish date and Finish 1 is last months, Finish 2, the month prior, and Finish 3 the one before it. Four periods of data is the maximum it can show, working on a rolling basis.

If you left click on a link, it will provide information about the link in white popup boxes on the right side of the tri-pane display. They stay up about 5 seconds and then disappear. If there are a lot of them, you will need to click again to continue reading.


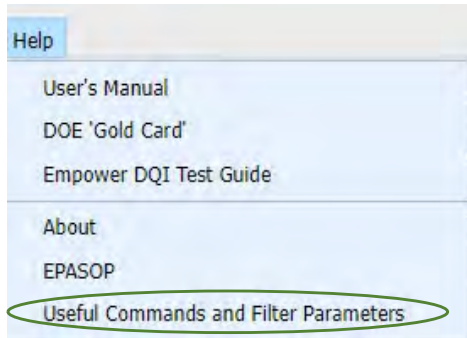



Gantt Filter

- Filter buttons narrow down the Activities that are displayed in the Schedule
- Slip Count – Did a Finish Variance occur during this period? = 1, otherwise 0
- SlipVal – Finish Variance (Finish (Forecast) – Baseline Finish)
- To Turn a Filter Off Select “None”

Filter Criteria



- Red – Neg float <-5 days or
3 slips in past 3 months
Slip > 30 days past BL
- Yellow – Neg float -0>= to -5 days
2 slips in past 3 months
Slip > 15 <30 days past BL
- Green – No negative float
1 slip in past 3 months
Slip < 15 days past BL
- White – All uncompleted tasks


26

Parameters for Red, Yellow, Green and white filters for Gantt are as set out of the box by Encore Analytics. While these can be changed, it is not practical for DOE to do so as we get data from multiple projects/contractors into the PARS system. Please note the White is a quick way to filter out all completed tasks. The other three filters let you quickly filter based on the performance parameters show. They typically look at slips from baseline, consecutive slips, and float. If you want to see all activities with more than 5 days of negative float, select the red filter. To see the whole schedule, select none.

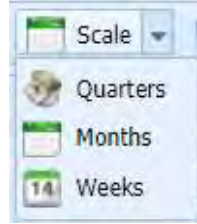
These filter parameters are one of many in Empower. To help you remember these, a two page useful commands and filter parameters sheet is listed in the help file. It is strongly recommended that all users download this, print it and have it handy when working in Empower. We will cover this more in the next session on filtering.

Gantt Toolbar



- **Scale** – Adjusts Gantt timeline
- **SIB** – Toggles between Relationships and Siblings
- **Links** – Displays Task Links in Gantt Chart (can view success by clicking on the link)
- **Critical Filter** – Filters for Tasks identified as Critical in the source data (MSP, P6, OPP)
- **Milestone Filter** – Filters for Tasks identified as Milestones
- **Filter buttons narrow down the Activities that are displayed in the Schedule**
 - Only displays Activities that meet the Threshold Conditions
- **To Turn a Filter Off Select “None”**



Each of these “buttons” operates like an On/Off toggle. 27

We will dive back into the Gantt Toolbar a bit more. We talked about filters – so on to scale.

Scale will set the Gantt Chart to Quarters (default), months or weeks. This allows the user to opportunity to view the Gantt in the most useful scale, based on the project.

SIB will toggle between the siblings and relationships on the Gantt chart.



Links turns on and off the logic links between activities

Selecting Critical will only show the activities which are designated critical. For DOE, the policy is critical defined by the longest path.

Milestones provides only the milestones in the chart. It is possible to turn on both critical and milestones to look at only the critical milestones.

Detail is not used at DOE as Primavera does not provide summary activities such as Microsoft Project would. There is no need to use as you will not see a change. For those who use Empower outside of DOE, this supports summary vs detailed presentation.

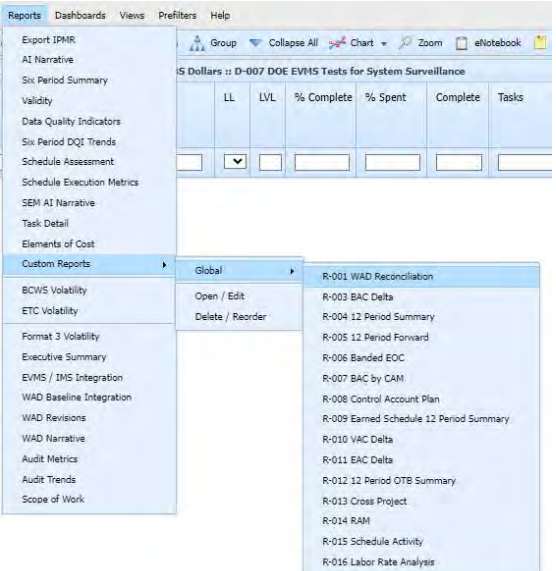
We will not spend much more time on Gantt Charts in the Basic User Course, but you will be looking the integration outcomes in the advance course and what they may lead you to.

Encore Analytics

Overview of Reports

- **Artificial Intelligence (AI)**
- **Trending Reports**
- **Validity, Assessment & DQI**
- **EOC and Action Items**
- **Data Volatility**
- **Level 1**
- **Integration Reports**
- **WAD Reports**
- **Custom Reports (Advanced)**
 - **More to come**



28

We will wrap this session up on reports. In this case, we will look at a couple of report types. You can see the menu is similar to views and charts. DOE and Encore Analytics custom reports are available as well.

One thing unique to the DOE instance of Empower is the Export CPR Format 1 and Format 2 reports is moved from the Administration part of Empower to the reports. This lets a user export an Excel file with Format 1, 2, 3, and 4. At this time, only the Format 1 and 2 are populating. We will work on the others in the future.

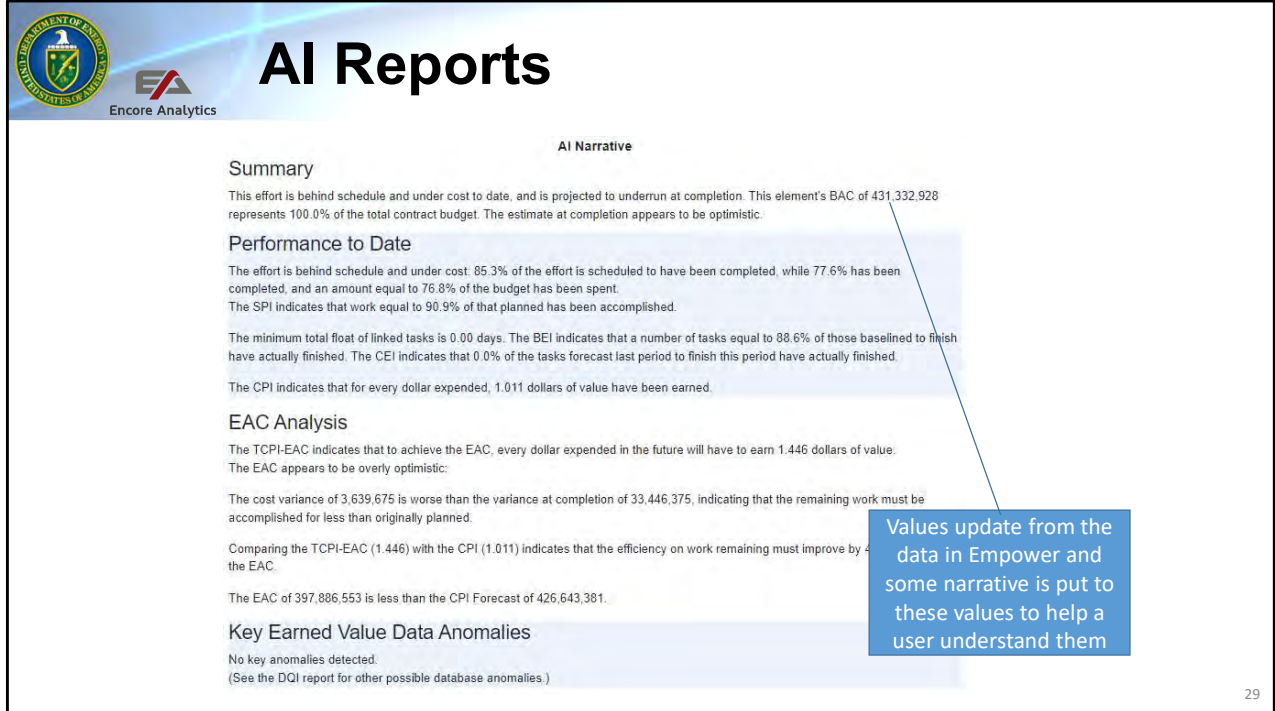
Similar to Charts will look at a handful of reports.

Slide 28

AY4

For Roland - How will IPMR exports be handled with new JSON, where there no longer a specific data set for Format 1 and 2?

Amber Young, 2/11/2024



AI Reports

Encore Analytics

AI Narrative

Summary
This effort is behind schedule and under cost to date, and is projected to underrun at completion. This element's BAC of 431,332,928 represents 100.0% of the total contract budget. The estimate at completion appears to be optimistic.

Performance to Date
The effort is behind schedule and under cost: 85.3% of the effort is scheduled to have been completed, while 77.6% has been completed, and an amount equal to 76.8% of the budget has been spent.
The SPI indicates that work equal to 90.9% of that planned has been accomplished.
The minimum total float of linked tasks is 0.00 days. The BEI indicates that a number of tasks equal to 88.6% of those baselined to finish have actually finished. The CEI indicates that 0.0% of the tasks forecast last period to finish this period have actually finished.
The CPI indicates that for every dollar expended, 1.011 dollars of value have been earned.

EAC Analysis
The TCPI-EAC indicates that to achieve the EAC, every dollar expended in the future will have to earn 1.446 dollars of value.
The EAC appears to be overly optimistic:
The cost variance of 3,639,675 is worse than the variance at completion of 33,446,375, indicating that the remaining work must be accomplished for less than originally planned.
Comparing the TCPI-EAC (1.446) with the CPI (1.011) indicates that the efficiency on work remaining must improve by 44.6% from the EAC.
The EAC of 397,886,553 is less than the CPI Forecast of 426,643,381.

Key Earned Value Data Anomalies
No key anomalies detected.
(See the DQI report for other possible database anomalies.)

29

This is the Artificial Intelligence report from Empower. It really uses an understanding of Earned Value Data to help the user understand what the data means. This is the report DOE has in the leadership dashboard, but a user can switch to this report at any time. This report works with any of the elements so you can use it to help you understand a work package or a control account instead of the just the top level.

Trending Reports

Six Period DQI Trends

Data Quality Indicator	CAT	MAR 20	APR 20	MAY 20
ACWP CUM with no BAC				
ACWP CUR with no BAC				
Zero budget work package				
LOE with CUM SV				
LOE with CUR SV				
BCWP with no ACWP				
Completed work with ETC				
ACWP on completed work				

Audit Trends
DOE EVMS Test Metric Specification (DOE), January 2022

Attribute	Metric	Test	M	OCT 22	NOV 22	DEC 22	JAN 23	FEB 23	MAR 23
A.01	01	WBS failed to be product-oriented and does not align with WBS narrative	*	*	*	*	*	*	*
A.01	02	Number of CA/SLPP where WBS dictionary scope does not match WIAD scope	*	*	*	*	*	*	*
A.01	04	Number of CAs in the RAM where RAM CA DB <=> IPMR F1 CA BAC DB	*	*	*	*	*	*	*
A.01	05	Number of WP/PP/SLPP where WBS code in EVMS <=> BL IMS	0.0 %	0.0 %	0.0 %	0.0 %	100.0 %	0.0 %	0.0 %
A.02	01	Number of prior month CA and SLPPs where CA and SLPP WBS or DB in prior month <=> CA WBS or DB in current month	*	*	*	*	*	*	*
A.02	02	Number of WBS identifiers where products/deliverables have not been decomposed into logical parent and child relationships	*	*	*	*	*	*	*
A.03	01	Number of CA WBSs in the RAM where RAM CA CAM <=> WBS index CAM or RAM CA DB <=> IPMR F1 DB or RAM OBS DB <=> IPMR F2 DB	*	*	*	*	*	*	*
		9 % complete	2.4 %	2.4 %	2.4 %	2.5 %	?	0.0 %	?
		not align with	49.1 %	50.0 %	50.0 %	49.1 %	?	51.0 %	?
		not align with	94.5 %	96.3 %	98.1 %	100.0 %	?	87.8 %	?
		align to WIAD	*	*	*	*	*	*	*

Six Period Summary

ITEM	MAR 20	APR 20	MAY 20
BCWS_c	146,295,621	8,392,200	7,312,461
BCWP_c	113,466,705	2,806,853	3,459,527
ACWP_c	121,954,258	1,912,102	1,917,822
SCH VAR_c	-32,828,916	-5,585,348	-3,852,934
SCH VAR %_c	-22.44	-66.55	-52.69
SPI_c	0.776	0.334	0.473

Trending reports generally accompany a report that shows current period information. There is a Data Quality Indicator report and a DQI six period trend, Same for Audit metrics which evaluate the compliance of an EVMS.

There are six and 12 period summary reports as well as a couple that span the entire project time range. There is one for earned schedule for use when the project is over 65% complete. Trend reports are key to look for improvements to performance or system compliance, steady state or a downward trend. When considering the realism of forecasts, it is good to understand the trend.



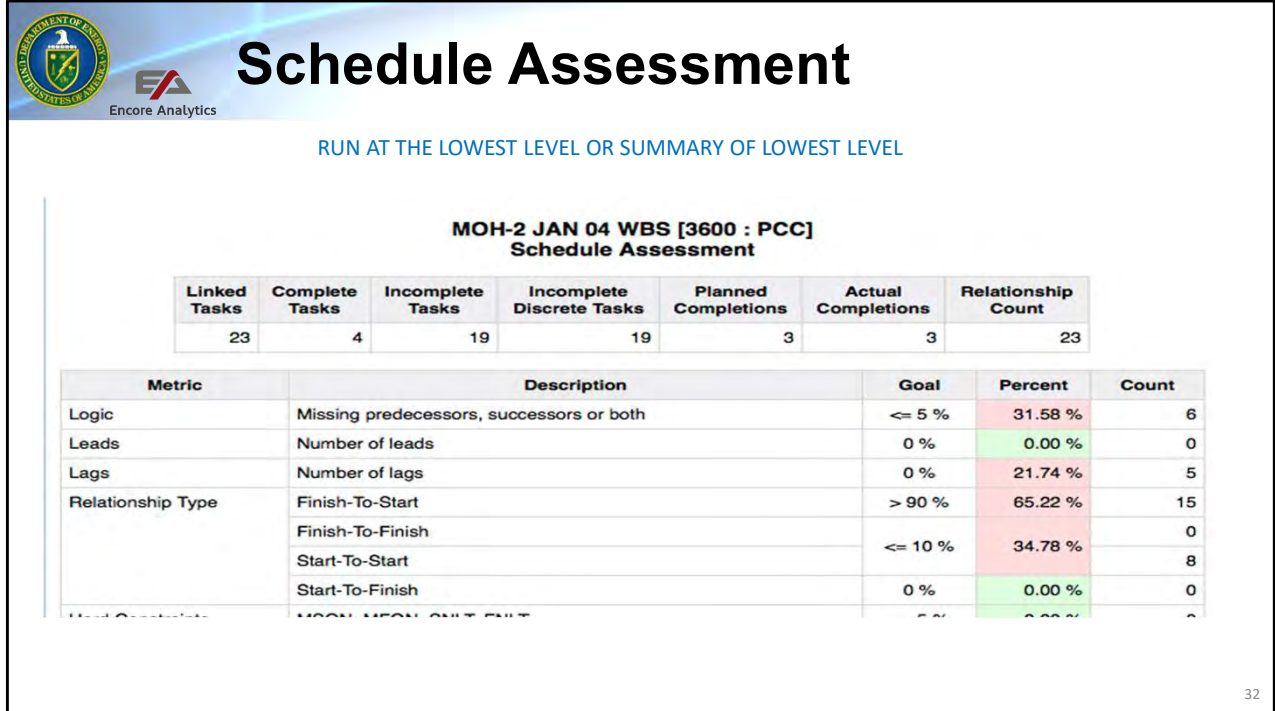
EOC Report and Chart

Need to report by WP / EOC to get the benefit here



EOC Total is the Sum of all EOC for the Active Element any deltas will show in "Delta to Dollars".



This is a report that provides a good breakout of costs by element of cost, but only if the contractor reports at this level. To do so in PARS, the contractor must use the CSV format. The older MDB format does not provide the information to support these and they will not reflect that you have the information. The element of cost reports helps provide the table information to go along with the element of cost chart.



Two reports are most meaningful when set up correctly. The DQI report and the Schedule Assessment report need to be viewed after you have done two steps in the sort window.

1. Filter on lowest level – select the Lowest button on the tool bar
2. Select Sum on the toolbar and make this summary line the active element. Allow the report to refresh and you will get a much better report on what is going on at the lowest level which roles up to the top levels.

This provides a lot more insight than just looking at the top level. When you get a PARS account look at both of these reports, one at the top level and one following these rules. Again, there is more information by reporting using the CSV format over that of the MDB, especially on metrics that look at cost / schedule integration. The Schedule Assessment help the user understand the quality of the schedule and the DQI report looks at both cost and schedule data quality

Schedule Assessment

Schedule Assessment

Linked Tasks	Complete Tasks	Incomplete Tasks	Incomplete Discrete Tasks	Planned Completions	Actual Completions	Relationship Count
1,656	1,095	561	543	1,159	985	2,168

Metric	Description	Goal	Percent	Count
Logic	Missing predecessors, successors or both	<= 5 %	0.18 %	1
Leads	Number of leads	0 %	0.00 %	0
Lags	Number of lags	0 %	0.00 %	0
Relationship Type	Finish-To-Start	> 90 %	94.74 %	2,054
	Finish-To-Finish			50
	Start-To-Start	<= 10 %	5.26 %	64
	Start-To-Finish	0 %	0.00 %	0
Hard Constraints	MSON, MFON, SNLT, FNLT	<= 5 %	0.00 %	0
High Float	Total Float > 44 Days	<= 5 %	8.73 %	49
Negative Float	Total Float < 0 Days	0 %	74.51 %	418
High Duration	Baseline Duration > 44 Days	<= 5 %	8.10 %	44
Invalid Dates	Invalid Forecast Start/Finish Dates	0 %	0.00 %	0
	Invalid Actual Start/Finish Dates	0 %	0.00 %	0
Missed Tasks	Tasks not performing to baseline plan	<= 5 %	54.27 %	629
Baseline Execution Index	Performance relative to baseline	> 95 %	84.99 %	985 / 1,159
Inconsistent Status	No Actual Finish but Percent Complete = 100 %	0 %	0.30 %	5
	Actual Finish with Percent Complete < 100 %	0 %	0.00 %	0
	Out of sequence status	0 %	5.13 %	85

This is an example of a schedule assessment report run at the lowest level. When run at Level 1, there is only a few items to show and a key concern may be overlooked.

AYS
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 FA
 Encore Analytics

Integration Report

EVMS / IMS Integration Report

Baseline to EV Engine AN 17 WBS Dollars [1000 : MOH-2] / IMS Integration (Thousands) Forecast to EV Engine

WBS	DESCRIPTION	PCT CMP	IMS BL START	FIRST BCWS	IMS BL FINISH	LAST BCWS	IMS START	FIRST ACWP/ETC	IMS FINISH	LAST ACWP/ETC
3000	PRIME EQUIP	30.31	2016-06-22	2016-04-01 2016-04-30	2020-07-01	2017-09-01 2017-09-30	2016-06-22	2016-04-01 2016-04-30	2020-07-01	2017-09-01 2017-09-30
3100	SENSORS	20.87		2016-12-01 2016-12-31		2017-09-01 2017-09-30		2016-12-01 2016-12-31		2017-09-01 2017-09-30
3200	COMMUNICATIONS	34.63	2016-06-22	2016-04-01 2016-04-30	2020-07-01	2017-09-01 2017-09-30	2016-06-22	2016-04-01 2016-04-30	2020-07-01	2017-09-01 2017-09-30
3300	AUX EQUIP	27.57		2016-04-01 2016-04-30		2017-01-01 2017-01-31		2016-04-01 2016-04-30		2017-01-01 2017-01-31
3400	ADPE	41.89	2016-06-22	2016-04-01 2016-04-30	2018-04-02	2017-09-01 2017-09-30	2016-06-22	2016-04-01 2016-04-30	2018-06-02	2017-09-01 2017-09-30
3500	COMP PROGRAMS	47.62		2016-04-01 2016-04-30		2017-01-01 2017-01-31		2016-04-01 2016-04-30		2017-01-01 2017-01-31
3600	PCC	28.99	2016-06-22	2016-04-01 2016-04-30	2018-06-02	2017-09-01 2017-09-30	2016-06-22	2016-04-01 2016-04-30	2018-07-28	2017-09-01 2017-09-30
3700	DATA DISPLAY	41.13		2016-04-01 2016-04-30		2017-01-01 2017-01-31		2016-04-01 2016-04-30		2017-01-01 2017-01-31
3800	I & A	35.40		2016-04-01 2016-04-30		2017-09-01 2017-09-30		2016-04-01 2016-04-30		2017-09-01 2017-09-30

Fields highlighted show disconnect from the IMS

34

The EVMS / IMS Integration Report is useful for current information forward. This report takes a look at each element and compares key dates between the Baseline and Forecast schedules and the cost system. For the baseline, the start is compared to the first BCWS in the cost tool and baseline finish compares to the last BCWS. In the forecast schedule there is a comparison to ACWP / ETC.



This is also a report that only works with CSV data and not MDB.

There is one key to note, Right now, for Empower, when we upload a project for the first time, this is first month that will show cost data, while all schedule history is imported. This is because the tool uses cumulative values for the first upload only. After that it uses incremental data. DOE requires that cost history be uploaded, while other agencies do not. Encore Analytics is working to add the capacity to use the cost history and until they do, you should only look at data in this report from the first period uploaded forward. For example, If the project started in 2009, but was first loaded to Empower in January 2019, then January 2019 will be the first potential month that can have First BCWS or ACWP. If you see a flag for a schedule item with a start date in 2010 and first BCWS in Jan 2019, this may be correct. Once Encore Analytics corrects this, an email will go to all users to advise that you can look at the complete report.

Even with this issue, the report is valuable in looking at integration and is being retained in the tool.

Slide 34

AY5 Update this speaker note? Consider removing to not have mention of MDB.
Amber Young, 2/11/2024

BCWS Volatility Report



BCWS Volatility

ITEM	NOV 19	DEC 19	JAN 20	FEB 20	MAR 20	APR 20	MAY 20	JUN 20	JUL 20	AUG 20	SEP 20	OCT 20	NOV 20
Future BCWS NOV 19		5,464,064	4,179,666	3,544,747	7,437,031	2,964,171	3,729,564	3,083,572	1,524,060	2,611,044	1,920,715	1,893,615	2,336,265
DEC 19			4,179,668	3,544,747	7,437,031	2,964,171	3,729,564	3,083,572	1,524,060	2,611,044	1,920,715	1,893,615	2,336,265
JAN 20				3,615,951	7,826,559	3,131,709	3,729,564	3,083,572	1,524,060	2,611,044	1,920,715	1,896,082	2,334,686
FEB 20					7,826,559	2,791,987	2,419,961	2,363,290	1,524,060	2,611,044	1,920,715	2,235,805	3,644,188
MAR 20						5,537,654	4,489,889	3,694,779	1,679,930	2,702,626	2,170,128	2,322,932	3,725,619
APR 20							0	0	0	0	0	0	0
MAY 20								0	0	0	0	0	0
Current BCWS	5,390,335	5,464,064	4,227,713	4,643,591	6,581,402	2,646,946	4,656,027						
Maximum	5,390,335	5,464,064	4,227,713	4,643,591	7,826,559	6,837,684	4,656,027	3,694,779	1,679,930	2,702,626	2,170,128	2,322,932	3,725,619
Minimum	5,390,335	5,464,064	4,179,668	3,544,747	6,581,402	2,646,946	2,419,961	2,363,290	1,524,060	2,611,044	1,920,715	1,893,615	2,334,686
Difference	0	0	48,045	1,098,845	1,245,157	3,190,738	2,236,066	1,331,489	155,870	91,582	249,413	429,317	1,391,234
Percentage	0.00	0.00	1.15	31.00	18.92	120.54	92.40	56.34	10.23	3.51	12.99	22.67	59.59
Average							33.03%						
Prior Average							28.60%						
Future Average							27.55%						
Delta to Prior								0	0	0	0	0	0
% Delta to Prior													

35

The next two reports are useful in looking at the quality of the plan as well as how well the CAMs are managing their control account. The BCWS volatility report lets you look at how stable the plan is. For this element notice March 2020 and you can see in January 2020, there was an increase in BCWS. If this is changing every month, then likely the plan is not as stable as it should be. If it does not change at all, but ETC is changing every month, you need to take a look what is driving these changes and if they are coupled.

This report and the next take a look 6 months back and forward. This was reporting in May 2020 and you notice BCWS is fairly stable most months.


ETC Volatility Report

ETC Volatility

ITEM	NOV 19	DEC 19	JAN 20	FEB 20	MAR 20	APR 20	MAY 20	JUN 20	JUL 20	AUG 20	SEP 20	OCT 20	NOV 20
Future ETC NOV 19		4,210,578	4,140,685	5,604,237	7,390,108	3,833,971	4,237,485	1,761,823	1,997,009	1,375,470	1,362,062	2,622,340	5,793,103
DEC 19			3,294,467	6,212,222	7,367,508	4,566,759	5,451,291	5,464,774	870,687	1,215,913	1,001,414	1,960,359	4,639,354
JAN 20				4,043,957	7,132,262	7,775,102	6,590,830	4,293,724	831,139	1,168,791	1,455,610	3,362,825	3,313,066
FEB 20					6,691,827	7,458,701	8,721,851	5,042,781	840,650	809,291	2,136,448	1,741,687	3,012,199
MAR 20						2,811,381	8,816,457	6,842,603	3,290,968	1,520,183	1,792,854	5,433,969	2,971,510
APR 20							0	0	0	0	0	0	0
MAY 20								0	0	0	0	0	0
Current ACWP	4,682,640	3,001,308	3,388,172	3,288,112	5,274,765	3,039,631	1,353,770						
Maximum	4,682,640	4,210,578	4,140,685	6,212,222	7,390,108	7,775,182	8,816,457	6,842,603	3,290,968	1,520,183	2,136,448	5,433,969	5,793,103
Minimum	4,682,640	3,001,308	3,294,467	3,288,112	5,274,765	2,811,381	1,353,770	1,761,823	831,139	809,291	1,001,414	1,741,687	2,971,510
Difference	0	1,209,270	846,218	2,924,110	2,115,343	4,963,801	7,462,687	5,080,779	2,459,828	710,892	1,135,034	3,692,282	2,821,593
Percentage	0.00	40.29	25.89	88.93	40.10	176.56	551.25	288.38	295.96	87.84	113.34	211.99	94.95
Average							155.02%						
Prior Average							61.93%						
Future Average							182.08%						
Delta to Prior								0	0	0	0	0	0
% Delta to Prior													

36

ETC is a bit more volatile. This may be a project that you would look into what the reason for volatility is. If costs for to go work are going up and down a lot, does BCWS do so as well? These two reports are helpful at understanding the churn the project team is going through as they manage/control this project. If there is a lot, what is causing it?



WAD Reports

WAD Baseline Integration

WBS	DESCRIPTION	WAD BAC	EVMS BAC	DELTA BAC	IMS START	WAD START	EVMS START	IMS FINISH	WAD FINISH	EVMS FINISH	WAD CAM	EVMS CAM
		0	30,097,223	-30,097,223	2020-02-27		2020-03-29	2025-04-29		2025-05-25		
		0	4,956,300	-4,956,300	2020-06-29		2020-07-26	2022-06-08		2022-07-03		
		0	4,597,330	-4,597,330	2020-02-06		2020-02-23	2025-05-12		2025-05-25		
		0	9,649,800	-9,649,800	2020-06-29		2020-07-26	2025-05-06		2025-05-25		
		0	23,205,416	-23,205,416	2020-02-06		2020-02-23	2026-01-07		2026-01-25		
		0	6,653,689	-6,653,689	2020-02-06		2020-02-23	2026-01-07		2026-01-25		
		0	1,800,096	-1,800,096	2020-02-06		2020-02-23	2026-01-07		2026-01-25		

37

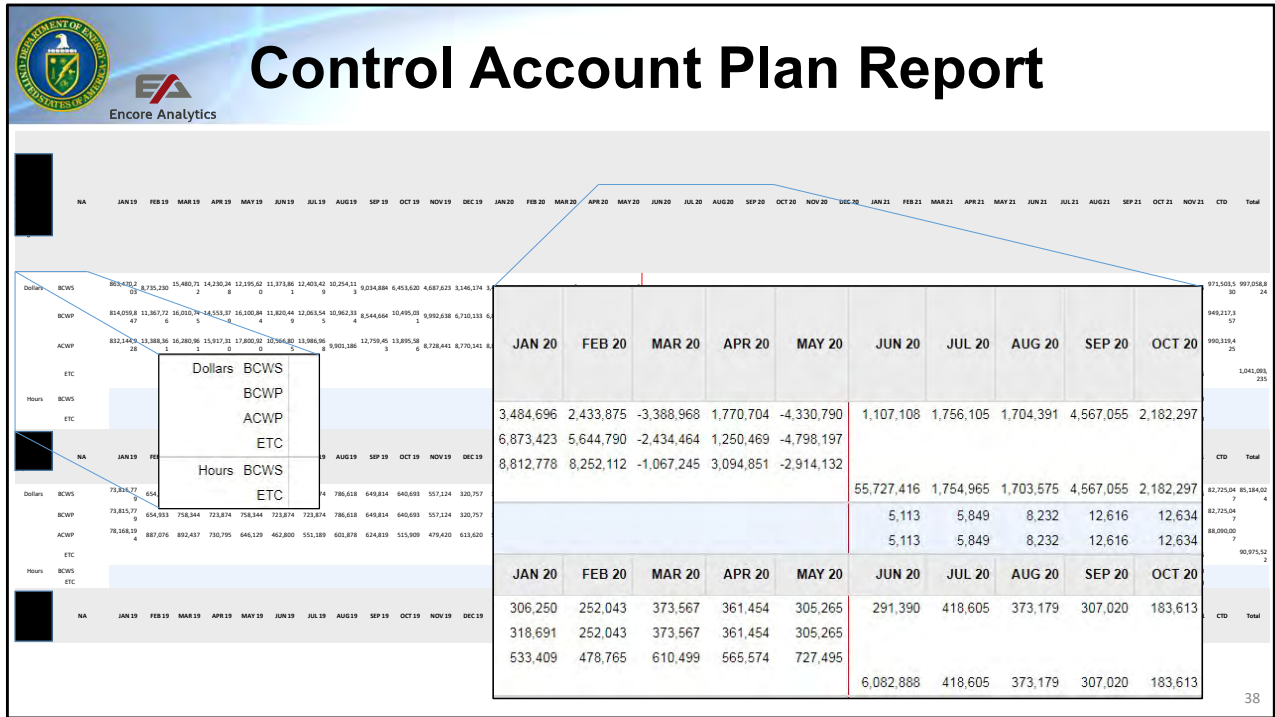
When WAD data is imported into Empower in JSON DS08, then the WAD fields will be populated on WAD reports. Three WAD reports are available:

- WAD Baseline Integration
- WAD Revisions
- WAD Narrative

Slide 37

AY14 If time, look for TSCR WAD data loaded into tools - production, last 6 months of POP.
Young, Amber, 2/22/2024

AY16 WAD data not found. Checked TSCR MAY21 - DEC22, CD-4, DEC21
Young, Amber, 2/24/2024



The Control Account Plan Report looks at the BCWS, BCWP, ACWP, ETC across the full project – to include future. This is useful in looking to see if the work in dollars and hours make sense.



Potential Future and Other Charts and Reports

The following are reports under development and are not visible in PARS

Production:

- R-002 Who Charged
- Var Narrative

Reports and charts we will discuss in the Advanced Users Course.

- Report: DQI
- Report Audit
- Report: Earned Schedule
- Report: R-011 through R-016
- Chart: Earned Schedule
- Chart: BCWR by CAM

In the Empower Reports provided to DOE, the following are not functional:

- Action Items – DOE does not have workflow with contractors to allow this to function
- Executive Summary

39

There are some reports that we do not have the data to use at this time and those the PARS instance of Empower will not be able to use. As new reports are available, an email to PARS users will be sent. In the Advanced course we will dig into the report in more detail, to include looking at the content and having the user consider what the views, charts and reports are telling you about a project. At this point in time, work to view the reports



Checks on Learning

- The EPASOP includes the following
 - A. Reports in the Dashboards
 - B. Program specific guidance for DOE users
 - C. Charts in the Dashboards
 - D. How DOE conducts an EVMS Compliance Review

- DOE has set Charts in Empower. These chart include:
 - A. Variance Analysis Charts
 - B. Empower Default Chart
 - C. Indices and EAC Charts
 - D. Element of Cost Charts
 - E. Level 1 Charts
 - F. Cum/Cur Element Performance Charts
 - G. Schedule Analytics

- The Chart used in the DOE Leadership Dashboard in Empower is
 - A. Schedule Gantt
 - B. Contractor Performance
 - C. Cumulative Variance Percent
 - D. Cumulative Element Performance

40

THESE ARE PLACED HERE AT THE END – BUT CAN BE MIXED INTO THE TRAINING AT THE APPROPRIATE SPOTS.



Checks on Learning

- Chart Options include:
 - A. Toggle many between Line, Bar, and Column
 - B. Show or Hide Background color
 - C. Charts in the Dashboards
 - D. Zoom to expand the data for select charts
 - E. All of the Above

- DOE Variance Chart includes the following:
 - A. Cumulative Cost Variance
 - B. Cumulative Schedule Variance
 - C. Cost Performance Index
 - D. Current Schedule Variance
 - E. Current Cost Variance
 - F. Cumulative Cost Variance Percent
 - G. Current Schedule Variance Percent

- The Indices and EAC Charts provide
 - A. Forecast information to the user
 - B. A way to look at current performance over time
 - C. A way to look at every active element
 - D. All of the above
 - E. Band C only

41

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Checks on Learning

- Trends, via trend charts, are useful in looking at past and current performance in terms of understanding how the contractor will do in the future.
 - A. True
 - B. False
- Element of Cost Charts:
 - A. Help a user see which element of cost makes the most contribution by active element.
 - B. Only works at DOE if reported to this level in the CSV format
 - C. Supports contractors at DOE who list overhead as an element of cost
 - D. All of the above
 - E. B and C only
- Level 1 charts provide information for all Active Elements.
 - A. True
 - B. False

42

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Checks on Learning

- The Contractor Performance chart
 - A. Currently includes the FPD estimate of the contractors Estimate at completion for the performance management baseline
 - B. Uses CD-2 as the start point
 - C. Uses CD-4 as the completion point
 - D. Reflects both ETC at the final point and the contractors CAM reported EAC

- Specialty Charts include a custom chart called BAC by EVM. This chart includes:
 - A. The percentage of budget for level of effort work
 - B. Budget broken out by all elements of cost used by the contractor
 - C. Budget broken out by all earned value methods used by the contractor.
 - D. A flag when there is no level of effort work
 - E. A flag when there is a high level of effort work

- A user wants to export the data that makes up a chart to use in Microsoft Excel To do this they would do the following.
 - A. Select the three bars in the chart and then select "Print the Report"
 - B. Select the three bars in the chart and then select "Download EMF Metafile"
 - C. Select the File Menu option and then select "Export Chart Data"
 - D. It cannot be done in Empower

43

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Checks on Learning

- Gantt Charts
 - A. Show up in the chart location of the tri-pane view
 - B. Let the user look at integration between cost and schedule
 - C. Are only under the views menu option
 - D. Let the user update the schedule tool used by the contractor.

- Within the Gantt charts:
 - A. The user can hover over the activity to get a popup box of information
 - B. Can filter to look at only critical activities
 - C. Can filter to look at only completed activities.
 - D. Can filter to look at both critical and milestones
 - E. Can look at the relationships between activities via the link option

- A user is recommended to download the Useful Commands and Filter Parameters from the Empower Help File in the DOE instance as it
 - A. Provide a two page document with the filters in Empower
 - B. Defines the Gantt performance filters as DOE has set them up.
 - C. Tells the user how to use Gantt Charts
 - D. Is an abbreviated version of the EPASOP

44

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Checks on Learning

- - A. Show up in the right side of the tri-pane view
 - B. Provide data in tables which align with the Active Element if not a Level 1 report
 - C. Include Data Volatility reports
 - D. Can provide additional insights with an artificial intelligence report that help a user a few of the data points from the tool
 - E. All of the Above
 - F. A and C only

- **Trend Reports:**
 - A. Look at data over the time phase periods to allow the user to see trends
 - B. Include 6 month, 12 month and the project start to finish time ranges
 - C. Allow a user to look for improvements to performance or system compliance, observe steady state or see a downward trend
 - D. All of the above
 - E. B and C Only

- **The Schedule Assessment and DQI Reports should be used**
 - A. At Level 1 data only
 - B. At the lowest level only using the summary line as the active element
 - C. To gain an understanding of the quality of the data for both cost and schedule
 - D. All of the above
 - E. B and C only

45

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Checks on Learning

- The EVMS / IMS Integration Report
 - A. Works for data from the first reported period forward
 - B. Shows if cost and schedule dates for start and finish are aligned
 - C. Show if the schedule logic is appropriate
 - D. Can provide additional insights with artificial intelligence report
 - E. All of the Above
 - F. A and B only
 - G. A and C only

- BCWS and ETC Volatile Reports:
 - A. Look 6 months back and forward
 - B. Lets the user see how much churn is taking place in work schedule and estimate to complete
 - C. Lets a user know if BAC is each month
 - D. All of the above
 - E. A and B Only
 - F. A and C Only

46

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BACKUP



New Charts 2024 v. 2019

Encore Analytics interface showing a menu of chart types. The 'Custom Charts' dropdown is open, displaying a list of chart options. The 'Global' category is selected, showing a list of chart types including 'C-002 DOE Data Validity', 'C-003 DOE Schedule Health', 'C-004 DOE Variance Analysis', 'C-005 DOE Trend Analysis', 'C-006 DOE Forecast', 'C-010 BAC by CAM', 'C-011 BAC by EVM', 'C-012 EACa', 'C-013 BCWR/ETC', 'C-020 Dual Axis - Index vs. Variance', 'C-021 Index Gauge CPI SPI BEI TCPI to EAC', 'C-022 BEI CEI Trend', 'C-023 SPI(1) vs SPI Cum (Use after 65% Complete)', and 'Who Charged'.

Encore Analytics interface showing a menu of chart types. The 'Custom Charts' dropdown is open, displaying a list of chart options. The 'Global' category is selected, showing a list of chart types including 'C-002 DOE Data Validity', 'C-003 DOE Schedule Health', 'C-004 DOE Variance Analysis', 'C-005 DOE Trend Analysis', 'C-006 DOE Forecast', 'C-010 BAC by CAM', 'C-011 BAC by EVM', 'C-012 BCWR vs ETC', 'C-020 Dual Axis - Index vs. Variance', 'C-021 Index Gauge CPI SPI BEI TCPI to EAC', 'C-022 BEI CEI Trend', 'C-023 SPI(1) vs SPI Cum (Use after 65% Complete)', 'C-024 Earned Schedule - Indices', 'C-025 Earned Schedule Duration', 'C-032 Labor Rate & Eff Variance', 'C-033 OTB Indices', and 'C-034 BCWR by CAM'. Several items are highlighted with yellow boxes: 'Format 3 Baseline', 'Cumulative Staffing', 'Current Period Staffing', and the entire 'C-024 Earned Schedule - Indices' through 'C-034 BCWR by CAM' section.



New Reports 2024 v. 2019

The image displays two screenshots of the Encore Analytics software interface, comparing report lists from 2019 (left) and 2024 (right). The interface includes a top navigation bar with 'Reports', 'Dashboards', 'Views', 'Prefilters', and 'Help'. A left sidebar contains a menu of report categories, and a main area shows a list of reports with columns for 'WBS', 'Description', and 'DOE'. Yellow boxes highlight specific reports in both screenshots.

Left Screenshot (2019):

- Report List: R-001 WAD Reconciliation, R-002 Who Charged, R-003 BAC Delta, R-004 12 Period Summary, R-005 12 Period Forward, R-006 Banded EOC, R-007 BAC by CAM, R-008 Control Account Plan, R-009 Earned Schedule 12 Period Summary, R-010 VAC Delta.
- Highlighted Reports: R-001 WAD Reconciliation, R-002 Who Charged, R-003 BAC Delta, R-004 12 Period Summary, R-005 12 Period Forward, R-006 Banded EOC, R-007 BAC by CAM, R-008 Control Account Plan, R-009 Earned Schedule 12 Period Summary, R-010 VAC Delta.

Right Screenshot (2024):

- Report List: R-001 WAD Reconciliation, R-003 BAC Delta, R-004 12 Period Summary, R-005 12 Period Forward, R-006 Banded EOC, R-007 BAC by CAM, R-008 Control Account Plan, R-009 Earned Schedule 12 Period Summary, R-010 VAC Delta, R-011 EAC Delta, R-012 12 Period OTB Summary, R-013 Cross Project, R-014 RAM, R-015 Schedule Activity, R-016 Labor Rate Analysis.
- Highlighted Reports: R-001 WAD Reconciliation, R-003 BAC Delta, R-004 12 Period Summary, R-005 12 Period Forward, R-006 Banded EOC, R-007 BAC by CAM, R-008 Control Account Plan, R-009 Earned Schedule 12 Period Summary, R-010 VAC Delta, R-011 EAC Delta, R-012 12 Period OTB Summary, R-013 Cross Project, R-014 RAM, R-015 Schedule Activity, R-016 Labor Rate Analysis.