EVM Dashboards for Analysis and Distribution using wInsight Analytics

July 27, 2016

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Course Agenda

- Toolset Overview
- WAM Administration and Configuration
- WAM Navigation and Dashboards

Learning Objectives

- Understand the wInsight suite of applications and the purpose of each tool
- Understand how import options in WAM are configured
- Understand the analysis purpose of each standard dashboard
- Understand how to make basic customizations to existing dashparts

BDO Government Contracts and Advisory Services

Integrated Program Management & Earned Value Management Capabilities

In addition to our cost accounting, FAR knowledge, CAS compliance, and business systems capabilities – we have years of experience supporting EVMS validation reviews and surveillance; as well as implementing compliant EVM systems, tools, and processes. We have also supported government Agency Program Office EVMS surveillance and certification.

BDO's support services include:

- EVM Assessment vs. EIA 748 Standard
- EVMS Implementation Planning & Solicitation Compliance
- Project Planning & Scheduling
- Schedule Risk Analysis
- EVMS Software installation, configuration, design, training, and implementation
- EVM Training and IBR Support

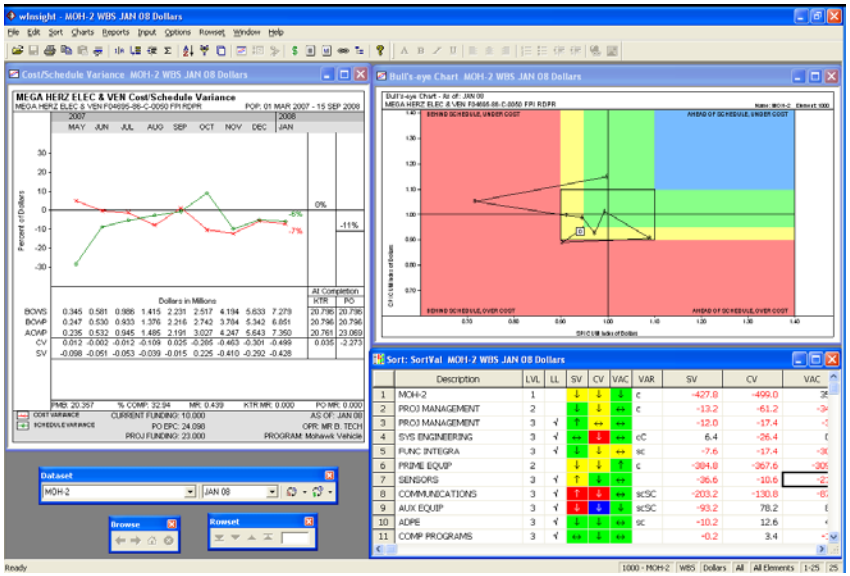
- **IPM & EVM Applications**
  - Deltek PM Compass – Process Automation
  - Deltek Cobra – EVM Cost Engine
  - wInsight Analytics – Analysis and Reporting
  - CloudEVM – EVM Cost Engine & Reporting
  - Encore Analytics Empower

- **Project Scheduling Applications**
  - Microsoft Project & Project Server
  - Oracle Primavera P6
  - Deltek Open Plan
  - Deltek Acumen Fuse – Schedule Risk Analysis
  - Steelray Project Analyzer

Toolset Overview

wInsight Overview

- A project management software suite developed by Deltek and used for the analysis and reporting of EV data
- An intuitive graphical interface that enables management by exception and drill-down analysis
- Can be used out of the box but is also highly configurable
- Not an EV engine – data is imported from another source
- Flow of data may look like the following:



wInsight Desktop

Cobra → wInsight Administrator → wInsight Analytics

wInsight Administrator

- The Administrator tool is used to complete the following:
  - Upload and maintain contract and EV data
  - Maintain the WBS
  - Customize user defined fields for wInsight
  - Enter and calculate data for CPR formats
  - Customize fiscal calendars and reporting periods
  - Backup and restore data
  - Export data in XML format

- wInsight Admin is the starting place for data population in all wInsight suite applications!

wInsight Desktop

- Desktop is the legacy application for analyzing data trends and enabling improved forecasting
- The underlying database has been updated with version 8 but the interface is largely unchanged
- Customization and configuration capabilities – can be complicated
- Users can update VARs and EACs based on monthly analysis

wInsight Analytics

- Replaces or duplicates functionality of Desktop while offering more robust analysis and drill down features
- Can be deployed via web for easy access
- Used by most day-to-day users
- Consists of out-of-the-box and customizable dashboards (Sheets) and dashparts (Sheet Objects)
- Uses an associative data model
  - user-driven
  - data can be analyzed from all sides
  - does not follow the standard Business Intelligence linear drill-down methods
- Built on Qlikview Technology
  - Admins can create visual charts, graphs, and dashboards for improved data analysis
  - Enables a highly customizable user experience but also contains out of the box dashboards to get started

Additional wInsight Tools

- MPM Connect
- C/S Glue Viewer
- Project Connect
- Briefing Wizard
- Excel Connect

WAM Administration and Configuration

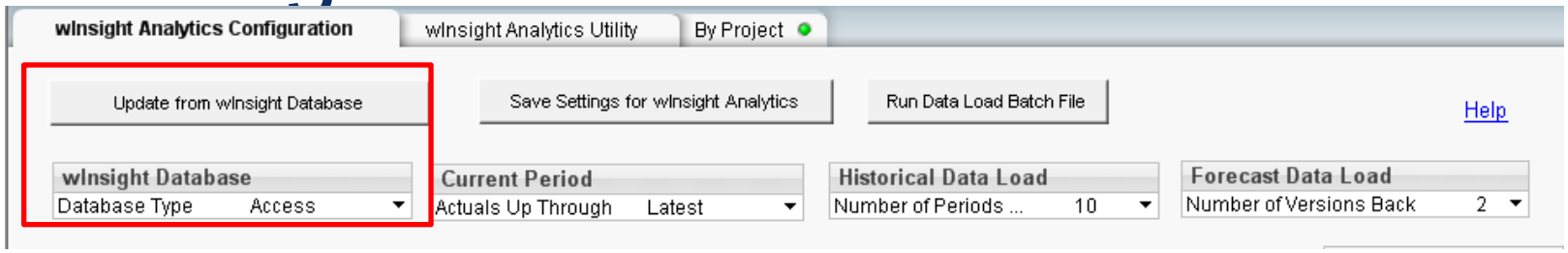
Analytics Administration

- The administrators' responsibilities in the Analytics module include:
  - Setting up users and security
  - Configuring data in WAM
  - Loading wInsight data
  - Setting up collaboration tools
  - Customizing Dashboards (if necessary)
- Projects may require administrative support upfront but the post-implementation focus will be maintaining security and loading wInsight data

Configuration Overview

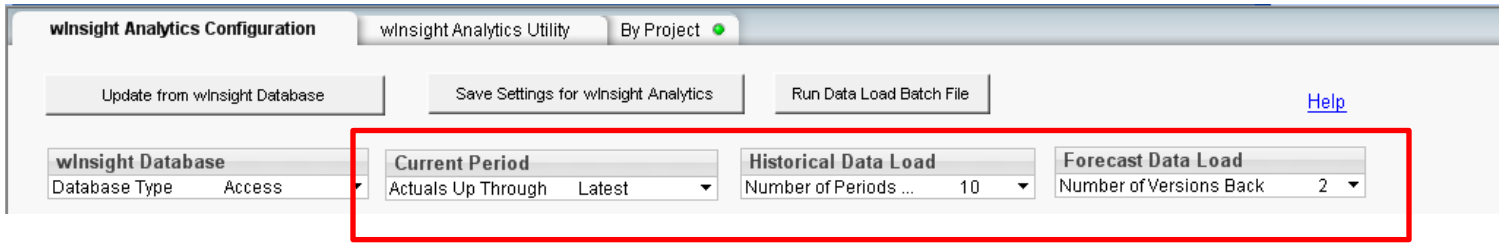
- Data must be loaded into the Analytics Module from wInsight Administrator
- The Analytics Configuration tab is the method by which the admin determines which pieces of data are imported from Administrator and how data is transformed for the analytics
- To access the configuration tab:
  - Open Qlikview on the server
  - Navigate to the wInsight_Analytics_Config.qvw file and double click to open (default location is C:\Users\[username]\Documents\Deltek\Analytics\admin)

wInsight Database Selection



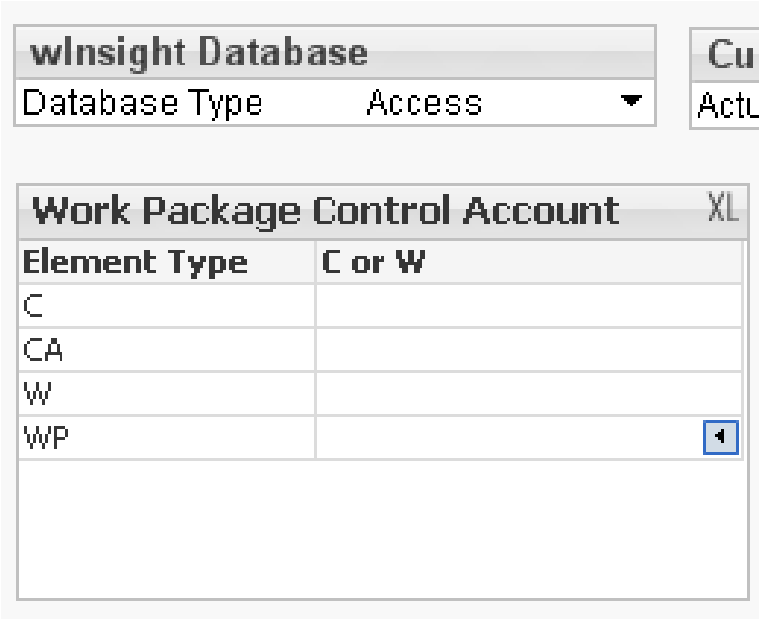
- Select “Update from wInsight Database” to pre-populate some selections
- Select the database from which data should be loaded. This is the same database that wInsight Administrator is connected to.
    - Oracle
    - SQL Server
    - Access
- The database will change very infrequently, if ever, during the life of the project

Data Time-Period



- Current Period and Historical Data Load options will determine which periods of data are loaded
- Choose the current period or period for which you will load actuals up through
  - Select Latest during implementation and the selection won't need to be updated each month
- Select the number of historical periods to load
- Select the number of historical versions of future period forecast and budget data to load

Define Element Types



- Analytics allows users to define element types:
  - Select C or W to indicate which elements are Control Accounts and which are Work Packages

Identify Units

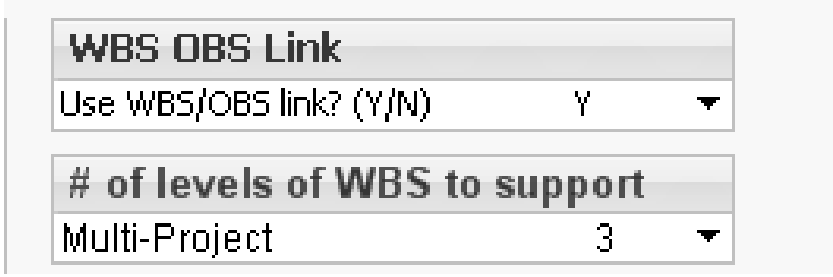
Unit Used As Element of Cost

ID	Name	EOC (Y/N)	EOC Unit
1	Dollars	N	
2	Hours	N	
3	EQP	N	

- User identifies units that Analytics should consider as elements of cost and also defines the unit of measure
  - Select Y/N to indicate if its an EOC
  - Choose the corresponding unit:
    - Dollars
    - Hours
    - EQP
- Enables the module to distinguish between true units and EOCs

WBS OBS View and Options

- User selects whether or not the WBS OBS view tab is available in Multi-Project analytics
- WBS to OBS mapping must first be established in Administrator
- Additional steps must be completed to fully implement this option



Security Options

- Analytics security is enabled through security set up in the Administrator tool
  - Includes any pre-filters that limit access to contracts, level of data, element, etc
  - Select Yes or No option for Analytics to import security settings from Administrator
- Additional Analytics security is not available – usually not an issue because key folders and the Qlikview application are installed on a separate server
- Windows Authentication must be used for user security to import successfully

Analytics Setup File

- Additional default settings can be adjusted through the wInsight_Analytics_Setup.xlsx file
  - Period End Dates – Default option is for period end dates to be the last day of month. Users can override this option if, for example, the period has an end date of 4/2/2016 but should be considered January data. Required in Analytics even if periods have already been specified in Administrator
  - Additional Fields –Analytics will not import certain fields from Administrator that are not used. Users can select to import any of these fields if they will be used for data analysis.
  - Data Validity Checks – Admins can rename, redefine, or create new data validity checks specific to organizational needs.
- Save changes in the excel file and then select Save Setting for wInsight Analytics to finalize

Period End Dates

End Date	End Date Override
12/3/2010	11/30/2010

EndDate_Override | Org_Hierachy | OBS_Org_Mapping | Fields_To_Bring_In | Data_Validation

Additional Fields

Field Name	Table Name	Bring In (Y/N)
CalID	CONTRACT	N
CaoSym	CONTRACT	N
Contract.ContrCeiling	CONTRACT	N
Contract.ContrCompl	CONTRACT	N
Contract.FixedFee	CONTRACT	N
Contract.LastItemDlv	CONTRACT	N
Contract.MaxFee	CONTRACT	N
Contract.MinFee	CONTRACT	N
Contract.NegCost	CONTRACT	N
Contract.NonFeeBearCost	CONTRACT	N
Contract.ShareAbove	CONTRACT	N
Contract.ShareBelow	CONTRACT	N
Contract.TgtFeeDol	CONTRACT	N
Contract.TgtFeePct	CONTRACT	N
Contract.TgtPrice	CONTRACT	N
ContrDefinit	CONTRACT	N
ContrNum	CONTRACT	N
CtrSym	CONTRACT	N
CustID	CONTRACT	N
OrigAwdFee	CONTRACT	N
ProdQty	CONTRACT	N
ProgNum	CONTRACT	N

EndDate_Override | Org_Hierachy | OBS_Org_Mapping | Fields_To_Bring_In | Data_Validation

Data Validation Checks

RiskType	RiskDesc	RiskID	Validation	FieldList	Disabled(Y/N)
Error	BAC or BCWS inconsistency	RISK1	IF(BcwsCum>Bac+1, 1, 0)	BcwsCum,Bac	N
Error	BAC or BCWP inconsistency	RISK2	IF(BcwpCum>Bac+1, 1, 0)	BcwpCum,Bac	N
Error	ACWPcum with no BAC	RISK3	IF(isnull(Bac) and not isnull(AcwpCum), 1,0)	AcwpCur,AcwpCum,Bac,Lre	N
Error	ACWPcur with no BAC	RISK4	IF(isnull(Bac) and not isnull(AcwpCur), 1,0)	AcwpCur,AcwpCum,Bac,Lre	N
Error	Negative EAC	RISK32	IF(Lre<0, 1,0)	Bac,Lre	N
Error	Negative BAC	RISK5	IF(Bac<0, 1,0)	Bac,Lre	N
Warning	BCWP with no ACWP	RISK6	IF(isnull(AcwpCum) and not isnull(BcwpCum), 1,0)	AcwpCum,BcwpCur,BcwpCum,BcwsCum,Bac	N
Error	Completed work with ETC	RISK7	IF(BcwpCum=Bac and Lre-AcwpCum>1, 1,0)	BcwpCum,Bac,Lre,AcwpCum	N
Error	Incomplete work without ETC	RISK8	IF(BcwpCum<Bac and Lre-AcwpCum<=0, 1,0)	BcwpCum,Bac,Lre,AcwpCum	N
Error	ACWP on Completed work	RISK9	IF(BcwpCum=Bac and BcwpCur=0 and AcwpCur>0,1,0)	BcwpCum, BcwpCur,Bac,AcwpCur,AcwpCum,Lre	N
EAC unrealistic	CPI-TCPI > 0.05	RISK10	IF(CpiCum-TcpiLre>0.05, 1, 0)	CpiCum,TcpiLre,BcwsCum,BcwpCum,AcwpCum,Bac,Lre	N
EAC unrealistic	CPI-TCPI < -0.05	RISK11	IF(CpiCum-TcpiLre<-0.05, 1, 0)	CpiCum,TcpiLre,BcwsCum,BcwpCum,AcwpCum,Bac,Lre	N
Error	ACWPCUM > EAC			AcwpCum,Lre,BcwsCum,BcwpCum,	

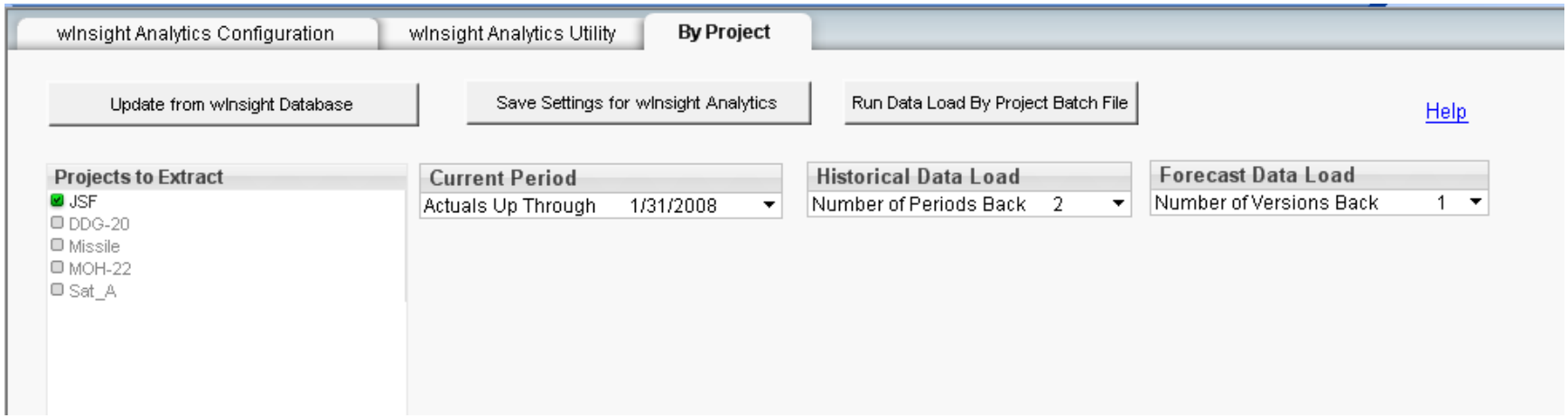
EndDate_Override | Org_Hierachy | OBS_Org_Mapping | Fields_To_Bring_In | Data_Validation

Data Load

- The Data Load batch is also executed in the wInsight Analytics Configuration module
- The batch is executed during the implementation and each time new data is added to wInsight Admin
- The process completes the following:
    - Updates the Analytics data model
    - Loads data for specified periods
    - Loads user-defined and calculated fields
    - Loads views and most user-defined filters
- Execute the Load_wInsight_Data_without_Datapull.bat to complete all of the above except loading data

All Projects vs. Selected Projects

- WAM allows admins to load all projects at once or on an individual basis
- Choose the By Project tab and select the projects and data periods to upload



Additional Server Features

- Analytics uses web services to support several capabilities such as narrative input, legacy charts/reports, Gantt carts and collaboration
- Users can bookmark and annotate specific views and selections to be shared with others
- Users can share the same session, displaying the results of their selections and enabling joint analysis

Importing Custom Items from Desktop

- Custom items created in wInsight Desktop (filters, charts, reports) can be displayed in WAM
- To import custom items:
  - Begin in the Desktop application and select export custom items
  - Save the WSCUSTOM XML file to any location
  - Copy the contents of the WSCUSTOM to two different locations
    - One is at \ProgramData\Deltek\Analytics\Setup\. This provides filters to WAM.
    - The other one is at \Program Files\Deltek\Analytics\Bin\. This one provides charts and reports for the WAM tabs that references the Desktop legacy formats.

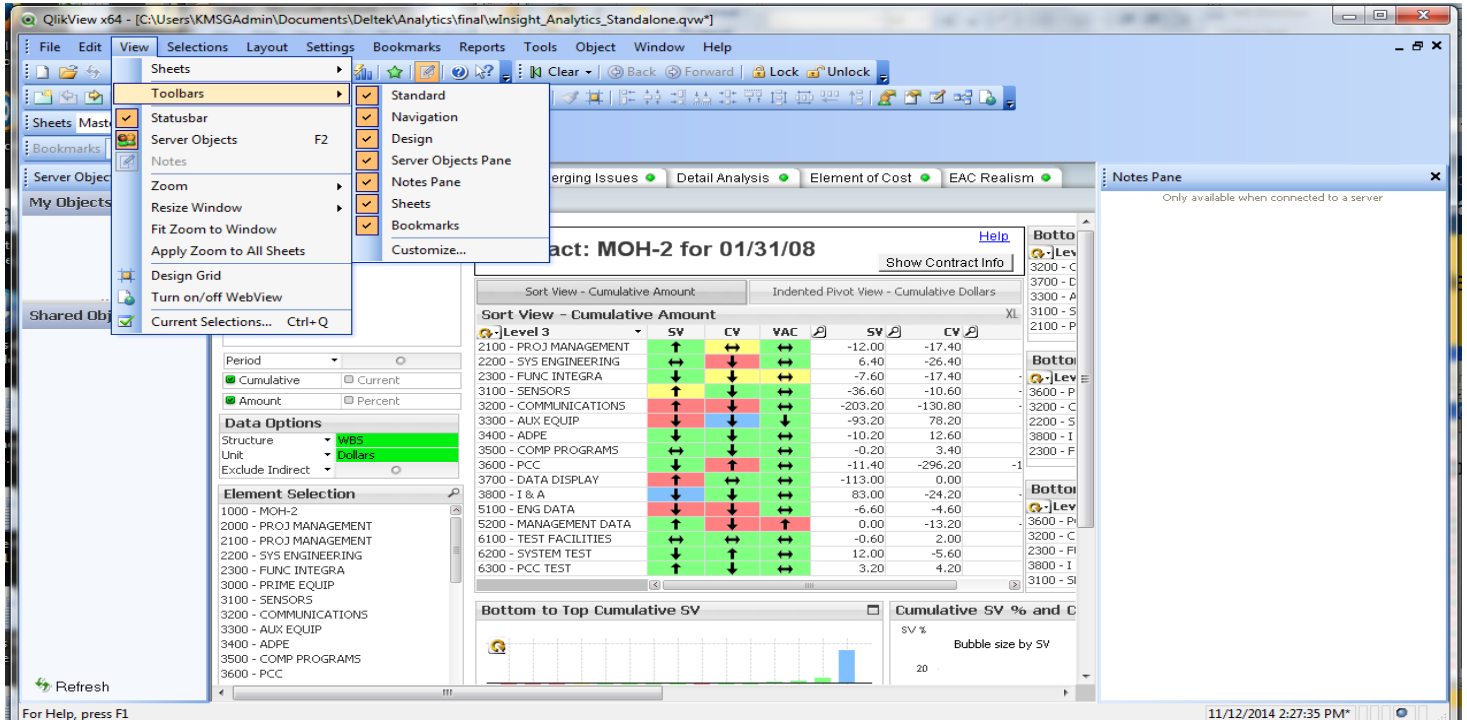
WAM Navigation & Dashboards

Launching WAM

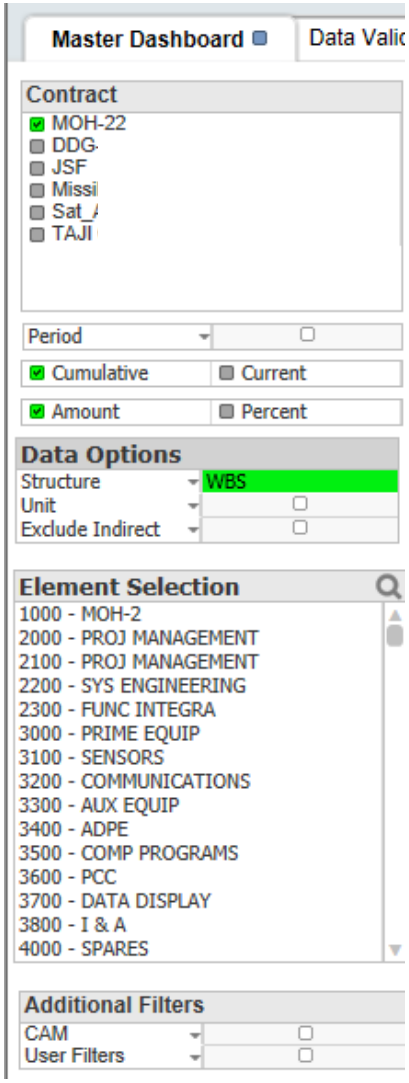
- WAM is populated with project data from wInsight Administrator that has been tailored by an Administrator for use in WAM
- wInsight Analytics Module can be accessed in one of two ways:
  - User - Internet explorer website
  - Administrator - Qlikview interface on server

wInsight Toolbars for Qlikview Module

- If you are accessing WAM through the Qlikview module, add additional toolbars for ease of use
- The toolbars are not available through the website

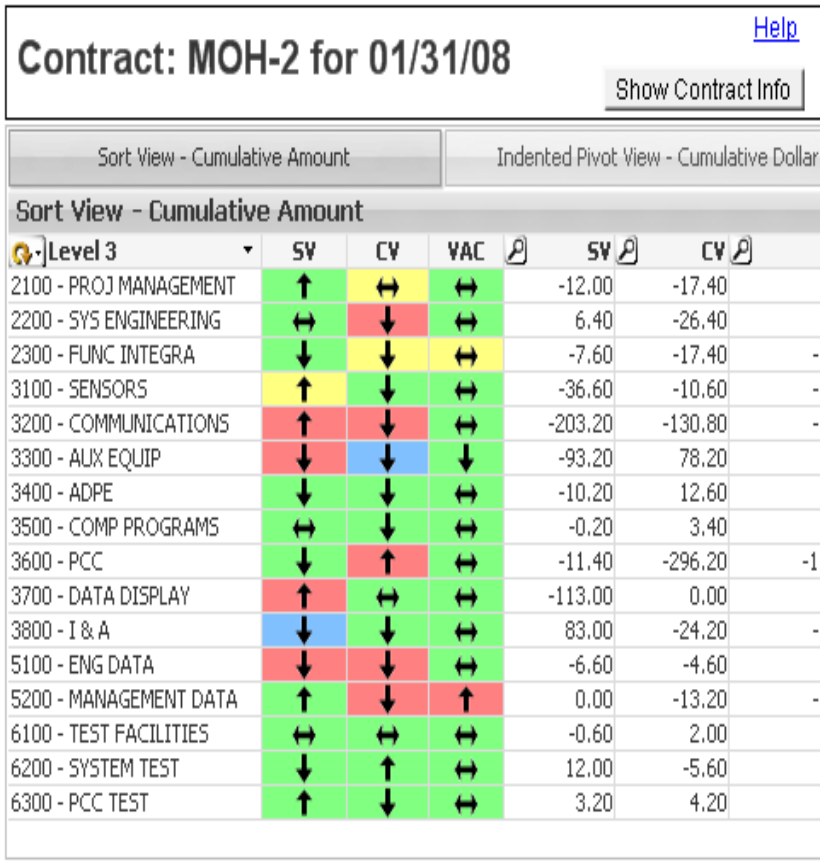


Data Selection



- Dashparts to the left of the screen dictate what is show in the main sort window
- Complicated filters and options from Desktop are easier to use in this format
    - Contract
    - Period
    - Data Options
    - Element Selection
    - Filters

WAM Sort Window



Contract: MOH-2 for 01/31/08

Help

Show Contract Info

Sort View - Cumulative Amount | Indented Pivot View - Cumulative Dollar

Sort View - Cumulative Amount

Level 3	SV	CV	VAC	SV	CV	
2100 - PROJ MANAGEMENT	↑	↔	↔	-12.00	-17.40	
2200 - SYS ENGINEERING	↔	↓	↔	6.40	-26.40	
2300 - FUNC INTEGRA	↓	↓	↔	-7.60	-17.40	-
3100 - SENSORS	↑	↓	↔	-36.60	-10.60	-
3200 - COMMUNICATIONS	↑	↓	↔	-203.20	-130.80	-
3300 - AUX EQUIP	↓	↓	↓	-93.20	78.20	
3400 - ADPE	↓	↓	↔	-10.20	12.60	
3500 - COMP PROGRAMS	↔	↓	↔	-0.20	3.40	
3600 - PCC	↓	↑	↔	-11.40	-296.20	-1
3700 - DATA DISPLAY	↑	↔	↔	-113.00	0.00	
3800 - I & A	↓	↓	↔	83.00	-24.20	-
5100 - ENG DATA	↓	↓	↔	-6.60	-4.60	
5200 - MANAGEMENT DATA	↑	↓	↑	0.00	-13.20	-
6100 - TEST FACILITIES	↔	↔	↔	-0.60	2.00	
6200 - SYSTEM TEST	↓	↑	↔	12.00	-5.60	
6300 - PCC TEST	↑	↓	↔	3.20	4.20	

- Same basic functionality as the sort window displayed in wInsight Desktop
- Columns are the same as Desktop
- Elements selected in this dashpart will be reflected in other dashparts
- Use circular arrow to drill down into the WBS

Column Descriptions

Title	Description	Type	Purpose/Notes
Description	Name of the WBS Element	Text	Identifies the WBS element
LVL	Level in the WBS hierarchy for each element	Positive integers; the number 1 indicates the highest level of the WBS	Provides a guide for the WBS hierarchy
SV, CV, VAC	Cumulative schedule variance (SV), cost variance (CV), or variance at complete (VAC) by color and the trend in variance by arrow; default colors are: red < -10% < yellow < -5% < green < +10% < blue	Red, Yellow, Green, or Blue; Up arrow, Down arrow, or horizontal arrow	Manage by exception, look for elements performing poorly and trending negatively (red and down arrow). Look for VACs that do not line up with CVs (i.e., red down arrow CV w/ green flat arrow for VAC)
VAR	Indicator for WBS elements that has crossed performance thresholds: c or C for cost, s or S for schedule and V for variance-at-complete; lowercase = current period, uppercase = cumulative	c, s, C, S, V	Thresholds are set for triggering a variance analysis report (VAR); this column provides a quick glance at which elements will require VARs.
SV, CV, VAC	Cumulative schedule variance (SV) or cost variance (CV) for each WBS element. VAC provides the most recent estimate of the variance at complete for each WBS element	Numeric; red for negative / black for positive	Summary level elements include the variances of the elements subordinate to them

Indented Pivot View

- Displays data in indented rows
- Easier to see hierarchical rollup of data for the selected structure
- Similar to Contract Tree in Desktop

Help

Contract: MOH-22 for 01/31/08

Show Contract Info

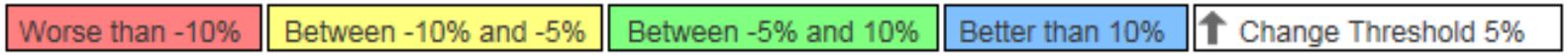
Sort View - Cumulative Amount | Indented Pivot View - Cumulative

Indented Pivot View - Cumulative

Level1	SV	CV	Vac
1000 - MOH-2	**-5,980.79**	**-6,349.85**	**-4,798....**
[G&A] - GEN & A	-39.00	-45.20	-36.80
[MR] - MGT RES	0.00	0.00	439.20
2000 - PROJ MA	-174.20	-805.80	-478.14
3000 - PRIME EQ	**-5,906.98**	**-5,129.77**	**-4,367....**
3100 - SEN	-594.30	-172.06	-350.78
3200 - COM	-3,041.30	-1,957.35	-1,302.25
3300 - AUX	-1,326.46	1,113.83	119.54
3400 - ADP	-156.71	193.77	70.68
3500 - COM	-2.81	47.19	-19.40
3600 - PCC	-154.74	-4,019.20	-2,540.65
3700 - DAT	-1,784.47	0.02	0.00
3800 - I &	1,153.81	-335.98	-344.63
4000 - SPARES	18.91	-123.09	-97.82
5000 - DATA	**-93.86**	**-253.23**	**-227.71**
5100 - ENG	**-93.87**	**-65.41**	**0.00**
-	**-93.87**	**-65.41**	**0.00**
-	**-93.87**	**-65.41**	**0.00**
	-93.87	-65.41	0.00

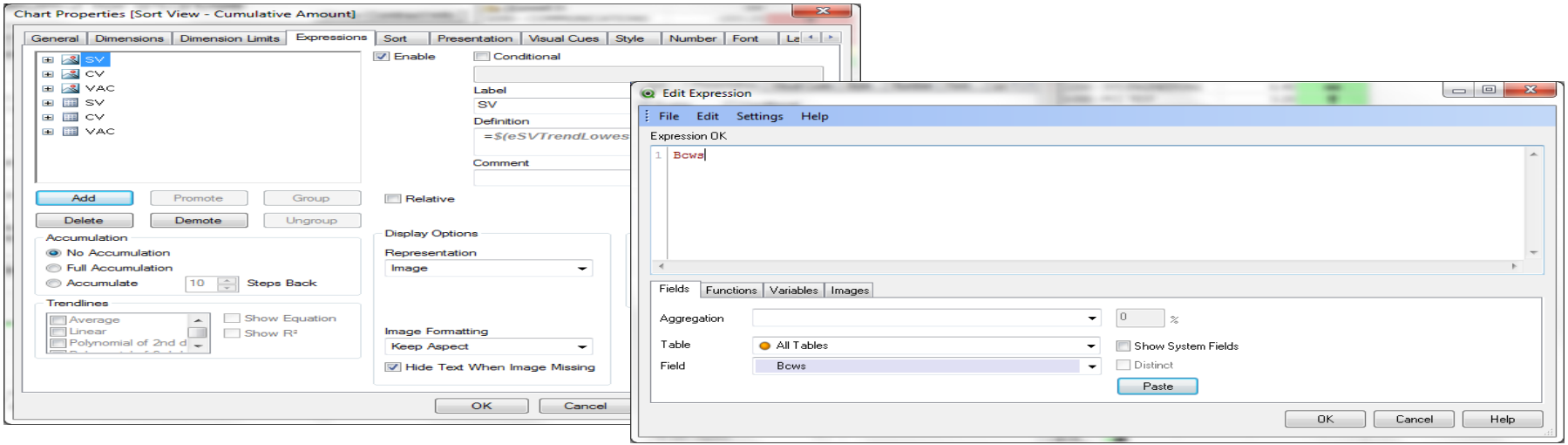
Variance Analysis Reporting

- Thresholds for variance columns are established by the contract and can be set using wInsight Administrator
- The current settings can be viewed at the bottom of the dashboard



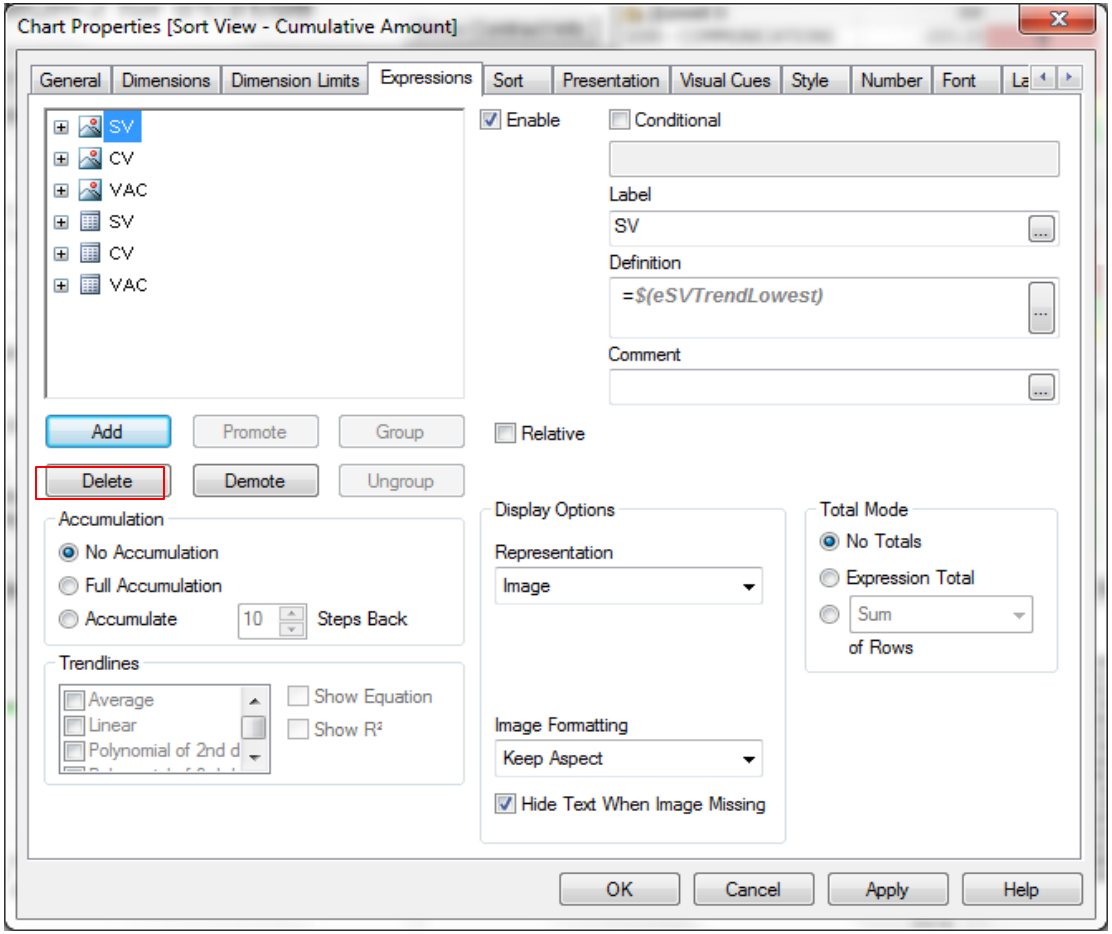
Customize Sort Window - Qlikview

- In addition to out of the box views, WAM users can also view Desktop custom items that the admin has imported
- Additionally, admins can access Chart Properties through Qlikview and customize views
- To add columns:
  - Right-click in Sort Window > Click on Properties > Expressions tab > Add
  - Click on the drop down menu next to Field > select the new column you want to add > Paste > OK > Apply



Customize Sort Window - Qlikview

- To delete columns:
  - Right-click in Sort Window > Select Properties
  - Open the Expressions tab > Select Delete
  - Click the drop down menu next to Field and select the column you want to delete

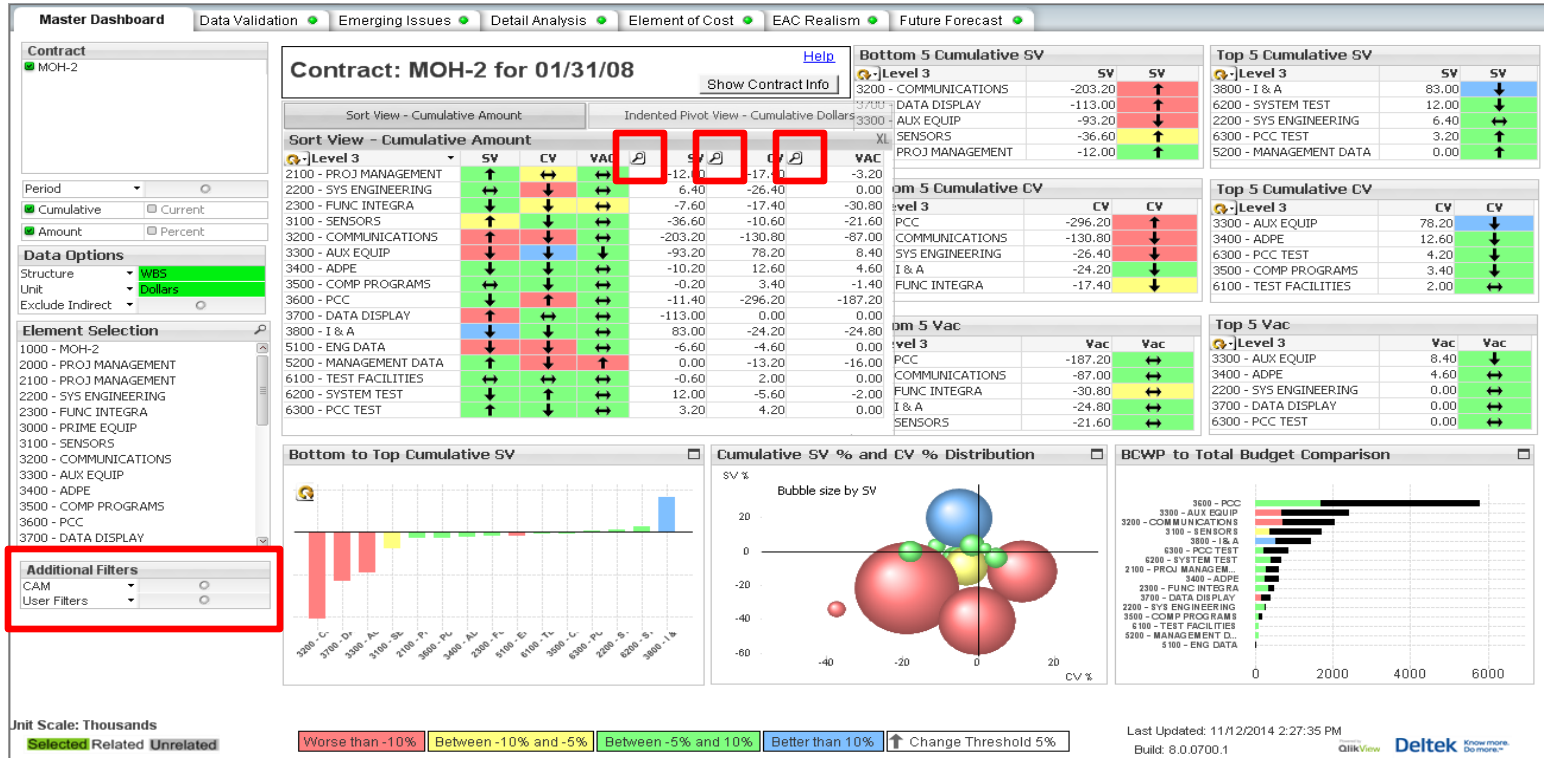


Filters Overview and Application

- Filters limit the elements displayed in the wInsight sort window and are used to review specific data when a project has many elements
- In Desktop, users have to develop filters that made it easy for them to find the elements which are uniquely important to their responsibilities
    - Specific control accounts
    - Variances above/below certain thresholds
    - Control accounts with certain budgets
- Filters can be applied in three different ways:
    - Restrict user access - Using wInsight Admin, security settings can be changed so that users can only access elements within a pre-defined filter
    - Pre-Filter when opening data (Desktop) - User can specify target data to be displayed
    - Filter data in sort window (Desktop and Analytics Module) - User narrows down the opened data set to view certain elements

Applying Filters

- To apply a filter, click the magnifying glass icon at the top of any sort view column to open a prompt. There are also additional filters at the bottom left of the page



Dashboard Overview - Master Dashboard

Master Dashboard | Data Validation | Emerging Issues | Detail Analysis | Element of Cost | EAC Realism | Future Forecast

Contract
MOH-2

Period
Cumulative | Current
Amount | Percent

Data Options
Structure: WBS
Unit: Dollars
Exclude Indirect

Element Selection
1000 - MOH-2
2000 - PROJ MANAGEMENT
2100 - PROJ MANAGEMENT
2200 - SYS ENGINEERING
2300 - FUNC INTEGRA
3000 - PRIME EQUIP
3100 - SENSORS
3200 - COMMUNICATIONS
3300 - AUX EQUIP
3400 - ADPE
3500 - COMP PROGRAMS
3600 - PCC
3700 - DATA DISPLAY

Additional Filters
CAM
User Filters

Contract: MOH-2 for 01/31/08

Help
Show Contract Info

Sort View - Cumulative Amount | Indented Pivot View - Cumulative Dollars

Sort View - Cumulative Amount

Level 3	SV	CV	VAC	SV	CV	VAC
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2300 - FUNC INTEGRA	↓	↓	↔	-7.60	-17.40	-30.80
3100 - SENSORS	↑	↓	↔	-36.60	-10.60	-21.60
3200 - COMMUNICATIONS	↑	↓	↔	-203.20	-130.80	-87.00
3300 - AUX EQUIP	↓	↓	↓	-93.20	78.20	8.40
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3600 - PCC	↓	↑	↔	-11.40	-296.20	-187.20
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6100 - TEST FACILITIES	↔	↔	↔	-0.60	2.00	0.00
6200 - SYSTEM TEST	↓	↑	↔	12.00	-5.60	-2.00
6300 - PCC TEST	↑	↓	↔	3.20	4.20	0.00

Bottom 5 Cumulative SV

Level 3	SV	SV
3200 - COMMUNICATIONS	-203.20	↑
3700 - DATA DISPLAY	-113.00	↑
3300 - AUX EQUIP	-93.20	↓
3100 - SENSORS	-36.60	↑
2100 - PROJ MANAGEMENT	-12.00	↑

Top 5 Cumulative SV

Level 3	SV	SV
3800 - I & A	83.00	↓
6200 - SYSTEM TEST	12.00	↓
2200 - SYS ENGINEERING	6.40	↔
6300 - PCC TEST	3.20	↑
5200 - MANAGEMENT DATA	0.00	↑

Bottom 5 Cumulative CV

Level 3	CV	CV
3600 - PCC	-296.20	↑
3200 - COMMUNICATIONS	-130.80	↓
2200 - SYS ENGINEERING	-26.40	↓
3800 - I & A	-24.20	↓
2300 - FUNC INTEGRA	-17.40	↓

Top 5 Cumulative CV

Level 3	CV	CV
3300 - AUX EQUIP	78.20	↓
3400 - ADPE	12.60	↓
6300 - PCC TEST	4.20	↓
3500 - COMP PROGRAMS	3.40	↓
6100 - TEST FACILITIES	2.00	↔

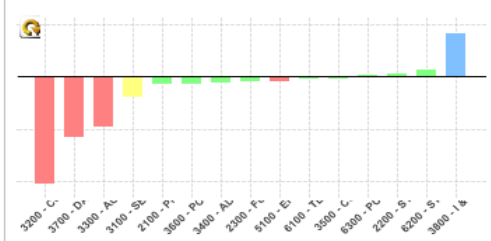
Bottom 5 Vac

Level 3	Vac	Vac
3600 - PCC	-187.20	↔
3200 - COMMUNICATIONS	-87.00	↔
2300 - FUNC INTEGRA	-30.80	↔
3800 - I & A	-24.80	↔
3100 - SENSORS	-21.60	↔

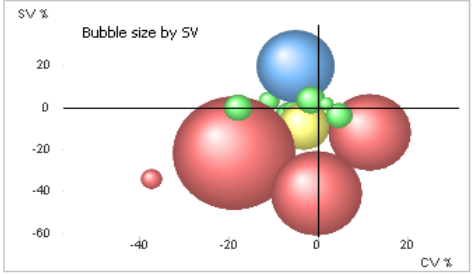
Top 5 Vac

Level 3	Vac	Vac
3300 - AUX EQUIP	8.40	↓
3400 - ADPE	4.60	↔
2200 - SYS ENGINEERING	0.00	↔
3700 - DATA DISPLAY	0.00	↔
6300 - PCC TEST	0.00	↔

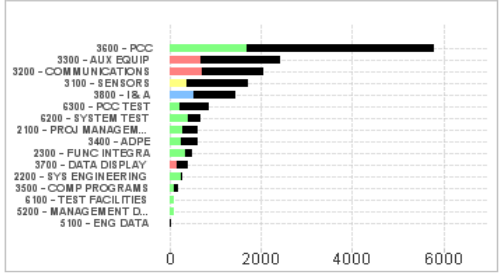
Bottom to Top Cumulative SV



Cumulative SV % and CV % Distribution



BCWP to Total Budget Comparison



Master Dashboard Description

- Displays a high level overview of trends and performance data by contract
- Not a detailed view but a means of identifying and drilling in problem areas
- Dashparts, Charts and Reports:
  - Sort View
    - Current or Cumulative
    - Trends and key metrics for WBS Elements
    - Can add or remove columns as desired
  - Top/Bottom Charts
    - Displays WBS Elements with the best and worst performance based on SV, CV, and VAC
  - Cumulative SV% and CV% Distribution
    - Plots SV% and CV% on an X and Y axis
    - Size the bubbles represents number of elements in that range
  - BCWP to Total Budget Comparison
    - Displays EV compared to BAC, colors are based on SV
    - WBS elements are organized by total budget

Dashboard Overview - Data Validation

Master Dashboard | **Data Validation** | Emerging Issues | Detail Analysis | Element of Cost | EAC Realism | Future Forecast

Period

Validation Type
- Informational
- Warning
- EAC unrealistic
- Error

Validation Check
- ACWP increase without BCWP increase
- BAC change
- BAC change without EAC change
- BCWP increase without ACWP increase
- Completed work with ETC
- CPI-TCPI < -0.05
- CPI-TCPI > 0.05
- EAC change
- EAC not within range of CPI and CP...

Data Options
- Structure: WBS
- Unit: Dollars

Element Type
- Lowest Elements
- Control Account
- Work Package

Lowest Elements
- 2100 - PROJ MANAGEMENT
- 2200 - SYS ENGINEERING
- 2300 - FUNC INTEGRA
- 3100 - SENSORS
- 3200 - COMMUNICATIONS
- 3300 - AUX EQUIP
- 3400 - ADPE
- 3500 - COMP PROGRAMS
- 3600 - PCC

Additional Filters
- Contract: MOH-2
- CAM
- User Filters

Contract: MOH-2 for 01/31/08

Help

Show Contract Info

Alerts By WBS Levels

WBS Level 1	Data Validation Check	# of Alerts
1000 - MOH-2	BAC change	15
	Completed work with ETC	1
	CPI-TCPI < -0.05	6
	CPI-TCPI > 0.05	4
	EAC change	15
	EAC not within range of CPI and CPI*...	17
	Possible inconsistency in EAC	9
	Task complete, but ACWP does not e...	1
	Subtotal	**68**
Total		**68**

Alerts By Lowest Elements

Type	Data Validation Check	Element	# of Alerts
Error	Completed work with ETC	6100 - TEST FACILITIES	1
	Task complete, but ACWP does not equ...	6100 - TEST FACILITIES	1
	Subtotal		**2**
EAC unrealistic	CPI-TCPI < -0.05	5100 - ENG DATA	1
		3600 - PCC	1
		4000 - SPARES	1
		2100 - PROJ MANAG...	1
		2200 - SYS ENGINEE...	1
		3200 - COMMUNICAT...	1
	CPI-TCPI > 0.05	6100 - TEST FACILITIES	1
		3500 - COMP PROGR...	1

Validation Table | Validation Trending

Validation Table

Element	AcwpCum	AcwpCum_P...	BcwpCum	BcwpCum_P...	AcwpCur	ACWPCum	BcwpCur	Bac	Bac_PRIOR
2100 - PROJ M...	300.00	262.20	282.60	246.80	37.80	0.00	35.80	618.40	597.0
2200 - SYS ENG...	267.40	251.40	241.00	235.40	16.00	0.00	5.60	283.40	275.4
2300 - FUNC IN...	363.20	354.80	345.80	338.80	8.40	0.00	7.00	482.80	464.8
3100 - SENSORS	371.40	219.00	360.80	220.60	152.40	0.00	140.20	1,728.40	1,728.4
3200 - COMMU...	838.20	626.40	707.40	539.00	211.80	0.00	168.40	2,043.00	1,962.8
3300 - AUX EQUIP	588.40	417.20	666.60	537.20	171.20	0.00	129.40	2,418.20	1,601.8
3400 - ADPE	238.40	178.00	251.00	213.00	60.40	0.00	38.00	599.20	577.8
3500 - COMP P...	84.40	67.00	87.80	70.60	17.40	0.00	17.20	189.00	181.0
3600 - PCC	1,977.60	1,532.40	1,681.40	1,242.60	445.20	0.00	438.80	5,800.60	5,547.2
3700 - DATA DI...	159.60	60.20	159.60	60.20	99.40	0.00	99.40	388.00	372.0
3800 - I & A	534.00	392.40	509.80	393.20	141.60	0.00	116.60	1,440.00	1,379.6
4000 - SPARES	142.80	81.00	135.00	75.60	61.80	0.00	59.40	755.60	728.8
5100 - ENG DATA	17.00	4.40	12.40	6.40	12.60	0.00	6.00	32.20	31.2
5200 - MANAG...	93.00	78.20	79.80	74.00	14.80	0.00	5.80	94.80	89.8
6100 - TEST FA...	99.00	99.00	101.00	101.00	0.00	0.00	0.00	101.00	101.0
6200 - SYSTEM...	411.40	391.20	405.80	382.00	20.20	0.00	23.80	667.20	636.6
6300 - PCC TEST	195.80	115.00	200.00	119.40	80.80	0.00	80.60	864.80	834.0

Data Validation Description

- Out of the box and/or user defined data validations identify elements that violate certain conditions and how they trend over time
- Organized by severity or category
    - Data Errors – Element still open but no remaining forecast
    - Data Warnings - budget increase but no forecast increase
    - Unrealistic forecast – Trending indicators don't match user EACs
- Dashparts, Charts, and Reports:
  - Alerts by WBS Levels
    - Drill down to different WBS levels to summary of validation alerts
  - Alerts by Lowest Elements
    - Table displays the alert type, validation check, lowest level element, and the number of alerts for each element
  - Validation Table
    - Displays raw data that goes into validation check
  - Validation Trending
    - Provides the monthly summary validation results to see if data improve over time

Dashboard Overview - Emerging Issues

Bookmarks

Master Dashboard | Data Validation | **Emerging Issues** | Detail Analysis | Element of Cost | EAC Realism | Future Forecast

Period

Data Options

Structure: WBS
Unit: Dollars

Element Type

Lowest Elements
Control Account
Work Package

Lowest Elements

2100 - PROJ MANAGEMENT
2200 - SYS ENGINEERING
2300 - FUNC INTEGRA
3100 - SENSORS
3200 - COMMUNICATIONS
3300 - AUX EQUIP
3400 - ADPE
3500 - COMP PROGRAMS
3600 - PCC
3700 - DATA DISPLAY
3800 - I & A
4000 - SPARES
5100 - ENG DATA
5200 - MANAGEMENT DATA
6100 - TEST FACILITIES
6200 - SYSTEM TEST
6300 - PCC TEST

Additional Filters

Contract: MOH-2
CAM
User Filters

Contract: MOH-2 for 01/31/08

Help
Show Contract Info

Emerging SV as of 01/31/08

WBS	SvCur	SvCum	SvCur	SvCum	SvCum Trend
3800 - I & A	↓	↓	-46.80	83.00	
3400 - ADPE	↓	↓	-14.00	-10.20	
2300 - FUNC INTEGRA	↓	↓	-1.80	-7.60	

Emerging CV as of 01/31/08

WBS	CvCur	CvCum	CvCur	CvCum	CvCum Trend
3800 - I & A	↓	↓	-25.00	-24.20	
3400 - ADPE	↓	↓	-22.40	12.60	
3300 - AUX EQUIP	↓	↓	-41.80	78.20	
3100 - SENSORS	↓	↓	-12.20	-10.60	

*** Emerging issues are identified by Current Color is red or yellow while Cumulative Color is green or blue.

Cumulative | Current | 6-months | 12-months

Trending Arrows | Trending Values

SV

Cumulative By SV Variance	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	Jan-2008
2100 - PROJ MANAGEMENT	↑	↑	↑	↓	↑	↑
2200 - SYS ENGINEERING	↑	↑	↑	↓	↓	↔
2300 - FUNC INTEGRA	↔	↑	↑	↓	↓	↓
3100 - SENSORS						↑
3200 - COMMUNICATIONS	↑	↑	↑	↓	↑	↑
3300 - AUX EQUIP	↑	↑	↑	↓	↑	↓
3400 - ADPE	↑	↑	↑	↓	↓	↓
3500 - COMP PROGRAMS	↔	↔	↑	↓	↑	↔
3600 - PCC	↑	↑	↑	↓	↓	↓
3700 - DATA DISPLAY	↑	↔	↑	↓	↑	↑
3800 - I & A	↑	↑	↑	↓	↑	↓
4000 - SPARES	↔	↔	↑	↓	↑	↑
5100 - ENG DATA	↔	↔	↑			↓
5200 - MANAGEMENT DATA	↓	↑	↑	↓	↑	↑
6100 - TEST FACILITIES	↔	↑	↑	↓	↑	↔
6200 - SYSTEM TEST	↑	↑	↑	↓	↓	↓
6300 - PCC TEST	↔	↑	↑	↓	↓	↑

Emerging Issues Description

- Identifies elements with decent performance to-date but that are trending negatively
- Provides early warning so that CAMs and PMs can address issues before variance thresholds are crossed
- Dashparts, Charts and Reports:
  - Emerging SV and CV as of…
    - Shows variance trends and amounts (in thousands) for different WBS elements
    - Can be current or cumulative, 6 months or 12 months
  - Cumulative Trending Arrows and Trending Values
    - Shows trends for SV, CV or VAC
    - Can be 6 months or 12 months

Dashboard Overview - Detail Analysis

Master Dashboard | Data Validation | Emerging Issues | **Detail Analysis** | Element of Cost | EAC Realism | Future Forecast

Period

Cumulative | Current

List of Views

- Contract
- CPI vs TCPI LRE
- CPR
- Current CPR
- Govt. EAC
- IPT
- PM Summary
- Scorecard
- Standard
- Std+WBS
- VAR Thresholds

Data Options

Structure: WBS
Unit: Dollars

Element Type

- Lowest Elements
- Control Account
- Work Package

Lowest Elements

- 2100 - PROJ MANAGEMENT
- 2200 - SYS ENGINEERING
- 2300 - FUNC INTEGRA
- 3100 - SENSORS
- 3200 - COMMUNICATIONS
- 3300 - AUX EQUIP
- 3400 - ADPE
- 3500 - COMP PROGRAMS

Additional Filters

Contract: MOH-2
CAM
User Filters

Unit Scale: Thousands

Contract: MOH-2 for 01/31/08

Help | Show Contract Info

Show All Elements Within Contract | Bring Last Selection Back

CPI vs TCPI LRE

Element	CAM	S...	C...	V...	CPI	TCPI-LRE	CPI to LRI
2100 - PROJ M...	Brown	↑	↔	↔	0.94	1.04	-0.1
2200 - SYS ENG...	Price	↔	↓	↔	0.90	2.65	-1.7
2300 - FUNC IN...	Price	↓	↓	↔	0.95	0.91	0.0
3100 - SENSORS	Smith	↑	↓	↔	0.97	0.99	-0.0
3200 - COMMU...	Tideman	↑	↓	↔	0.84	1.03	-0.1
3300 - AUX EQUIP	Tideman	↓	↓	↓	1.13	0.96	0.1
3400 - ADPE	Zepka	↓	↓	↔	1.05	0.98	0.0
3500 - COMP P...	Pino	↔	↓	↔	1.04	0.95	0.0
3600 - PCC	Zepka	↓	↑	↔	0.85	1.03	-0.1
3700 - DATA DI...	Troop	↑	↔	↔	1.00	1.00	0.0
3800 - I & A	Troop	↓	↓	↔	0.95	1.00	-0.0
4000 - SPARES	Blair	↑	↑	↔	0.95	1.00	-0.0

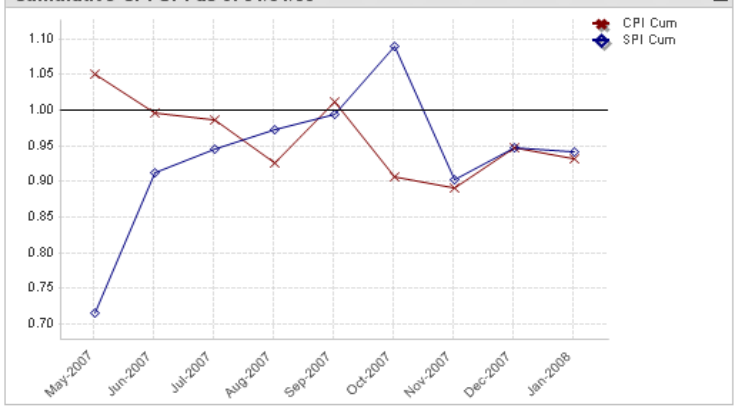
6-months | 12-months

Cumulative Performance Summary as of 01/31/08

Elements	EndDate	Aug-2007	Sep-2007	Oct-2007 ##
2100 - PROJ MANAGEMENT	BCWS	68.0	107.0	121.0
	BCWP	67.0	109.0	134.0
	ACWP	72.0	106.0	146.0
	SCH VAR	-1.0	2.0	13.0
	SCH VAR %	-1.47%	1.87%	10.74%
	SPI	0.985	1.019	1.107
	COST VAR	-5.0	3.0	-12.0
	COST VAR %	-7.46%	2.75%	-8.96%
	CPI	0.931	1.028	0.918
	BAC	627.00	627.00	627.00
	EAC	576.00	576.00	576.00
	VAC	51.00	51.00	51.00
2200 - SYS ENGINEERING	BCWS	59.0	94.0	106.0
	BCWP	63.0	102.0	127.0
	ACWP	69.0	101.0	140.0
	SCH VAR	4.0	8.0	21.0
	SCH VAR %	6.78%	8.51%	19.81%

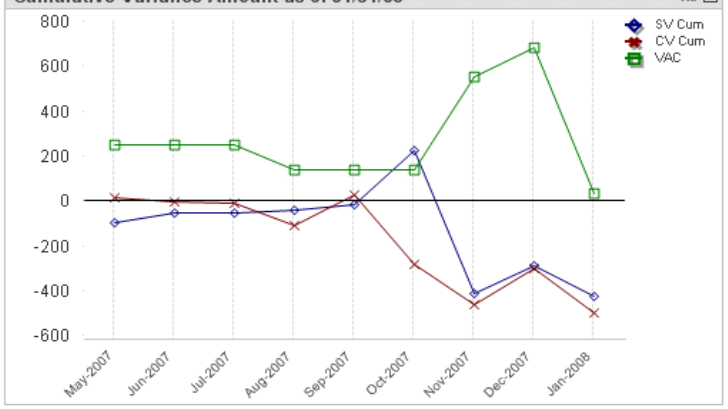
CPI & SPI | EOC | Narratives | Bull's Eye

Cumulative CPI SPI as of 01/31/08



Amount | Percent

Cumulative Variance Amount as of 01/31/08



Detail Analysis Description

- Detailed view of project performance and trends through charts and graphs similar to Desktop items
- Data is most meaningful when user drills down
- Dashparts, Charts and Reports:
  - Sort Window
    - Provides key performance indices for assessing the validity of forecast
    - Can go back in time (if data is loaded) to see forecast trends
  - Cumulative Performance Summary
    - Provides general summary (like Desktop 6 period summary) for WBS elements
  - Charts
    - Displays charts similar to Desktop items in updated format

Dashboard Overview - Element of Cost

Period 7/5/2013

Contracts with Actuals Up Through

DDG-20 Jul - 13

Cumulative | Current

CV | SV

EOC Unit	EOC Name
	LABOR
Dollars	MATERIAL
	ODC
	$

Additional Filters

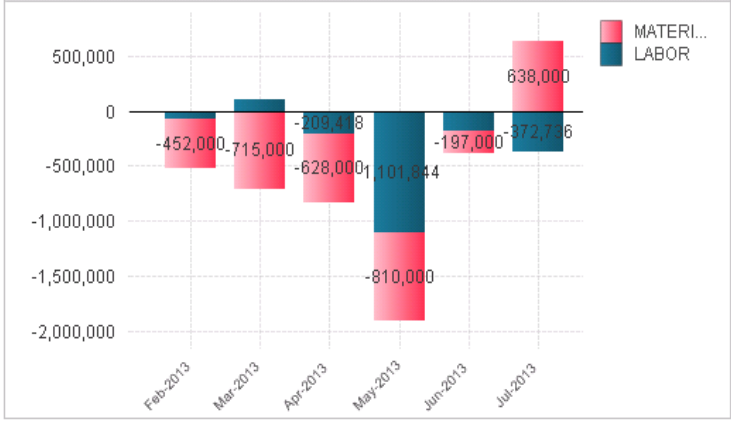
Project Manager
Analyst
Program Type 1
CAM
User Filters

DDG-20 Summary at Level 4 as of 07/05/13

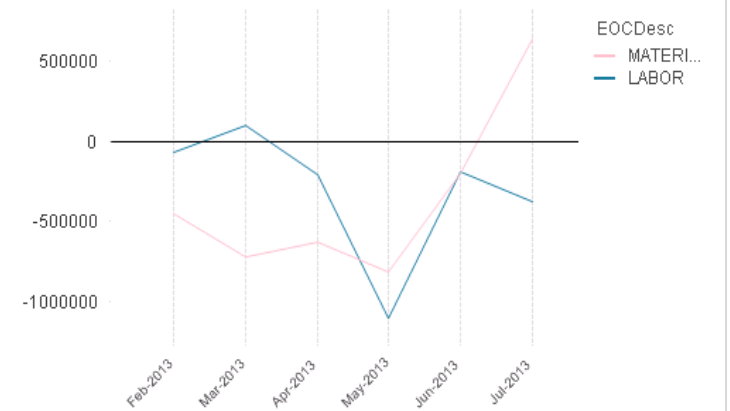
Help

Drill to Detail Analysis | Show Contract Info

Cumulative CV By Element of Cost Breakdown



Cumulative CV Element of Cost Trending



Cumulative CV EOC By Elements Over Time

ContrName	EOC	Feb-2013	Mar-2013	Apr-2013	May-2013
DDG-20	LABOR	-72,928.00	100,320.00	-209,418.00	-1,101,844.00
	MATERIAL	-452,000.00	-715,000.00	-628,000.00	-810,000.00

Cumulative CV Total EOC by WBS

ContrName	LABOR	MATERIAL	Total
DDG-20	-372,736.00	638,000.00	**265,264.00**

Element of Cost Description

- Displays EV performance data by element of cost so that CAMs can observe the primary drivers behind variances
- Dashparts, Charts, and Reports:
  - User can toggle to show cost variance or schedule variance & current or cumulative data
  - Charts display metrics and specify elements of cost responsible
  - Helpful when certain elements of cost are out of CAMs control

Dashboard Overview - EAC Realism

Master Dashboard | Data Validation | Emerging Issues | Detail Analysis | Element of Cost | **EAC Realism** | Future Forecast

Period
Cumulative | Current

Data Options
Structure: WBS
Unit: Dollars

Lowest Elements
2100 - PROJ MANAGEMENT
2200 - SYS ENGINEERING
2300 - FUNC INTEGRA
3100 - SENSORS
3200 - COMMUNICATIONS
3300 - AUX EQUIP
3400 - ADPE
3500 - COMP PROGRAMS
3600 - PCC
3700 - DATA DISPLAY
3800 - I & A
4000 - SPARES
5100 - ENG DATA

Element Type
Lowest Elements
Control Account
Work Package

Additional Filters
Contract: MOH-2
CAM
User Filters

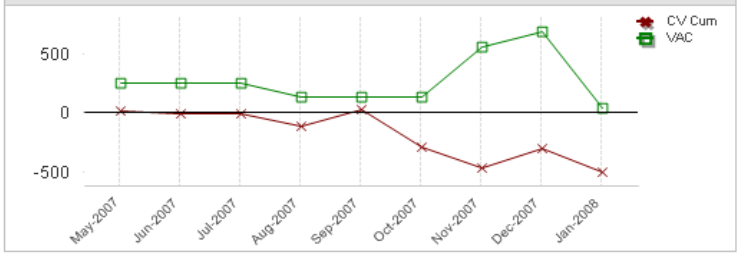
Contract: MOH-2 for 01/31/08

Help
Show Contract Info

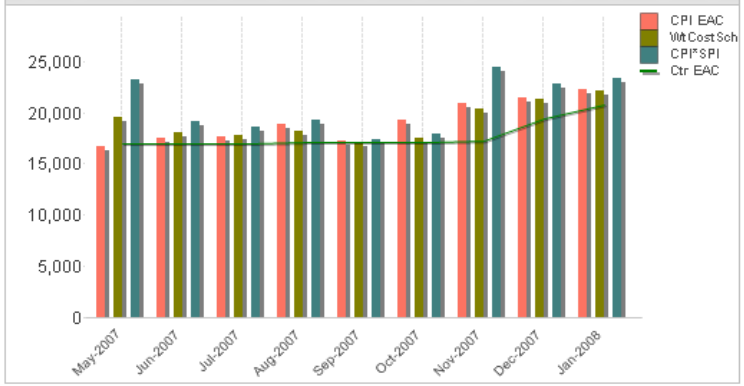
EAC Realism Cumulative as of 01/31/08

WBS	Eac Realism	PctCmp	CV	Vac	CpiToEacTr	CpiToEac
2100 - PROJ MANAGEMENT	1	45.70	↔	↔	↓	-0.10
2200 - SYS ENGINEERING	1	85.04	↓	↔	↓	-1.75
2300 - FUNC INTEGRA	0	71.62	↓	↔	↓	0.04
3100 - SENSORS	0	20.87	↓	↔	↓	-0.02
3200 - COMMUNICATIONS	1	34.63	↓	↔	↓	-0.19
3300 - AUX EQUIP	1	27.57	↓	↓	↓	0.17
3400 - ADPE	0	41.89	↓	↔	↓	0.08
3500 - COMP PROGRAMS	0	46.46	↓	↔	↓	0.09
3600 - PCC	1	28.99	↑	↔	↑	-0.18
3700 - DATA DISPLAY	0	41.13	↔	↔	↔	0.00
3800 - I & A	0	35.40	↓	↔	↓	-0.04

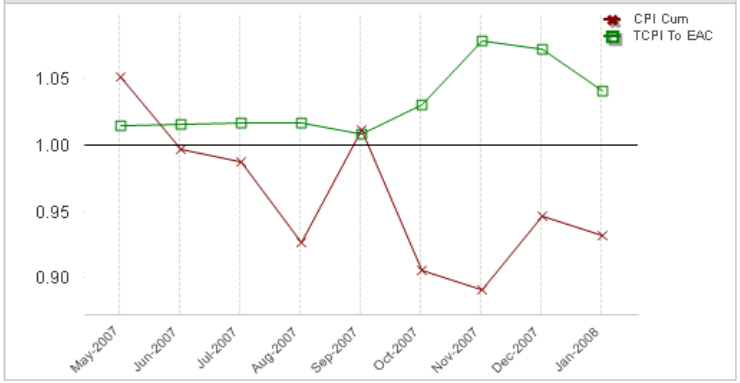
Cumulative CV vs. VAC as of 01/31/08



IEACs vs. Ctr EAC as of 01/31/08



Cumulative CPI vs. TCPI EAC as of 01/31/08



EAC Realism Description

- Used by PMs and CAMs to assess to validity and likelihood of achieving EACs
- Offers quickly comparison of user EACs to multiple statistical EAC calculations
- Allows users to compare the performance to-date with what needs to be
- Dashpart, Charts and Reports:
  - EAC Realism (Cumulative/Current)
    - Can be current or cumulative
    - At a glance display of realism (takes into account PctCmp, CV, VAC, CpiToEACTr, and CpiToEac metrics)
  - Cumulative CV vs VAC
    - Compare CV to VAC to quickly identify discrepancies
  - IEACs vs Ctr EAC
    - Statistical and user EACs displayed side by side to see if user EAC is in range
  - Cumulative CPI vs TCPI EAC
    - User can assess EAC validity based on cumulative performance

Dashboard Overview - Future Forecast

Master Dashboard | Data Validation | Emerging Issues | Detail Analysis | Element of Cost | EAC Realism | **Future Forecast**

Data Options

Structure: WBS
Unit: Dollars

Element Type

Lowest Elements
Control Account
Work Package

Lowest Elements

2100 - PROJ MANAGEMENT
2200 - SYS ENGINEERING
2300 - FUNC INTEGRA
3100 - SENSORS
3200 - COMMUNICATIONS
3300 - AUX EQUIP
3400 - ADPE
3500 - COMP PROGRAMS
3600 - PCC
3700 - DATA DISPLAY
3800 - I & A
4000 - SPARES
5100 - ENG DATA
5200 - MANAGEMENT DATA
6100 - TEST FACILITIES
6200 - SYSTEM TEST

Additional Filters

Contract: MOH-2
CAM
User Filters

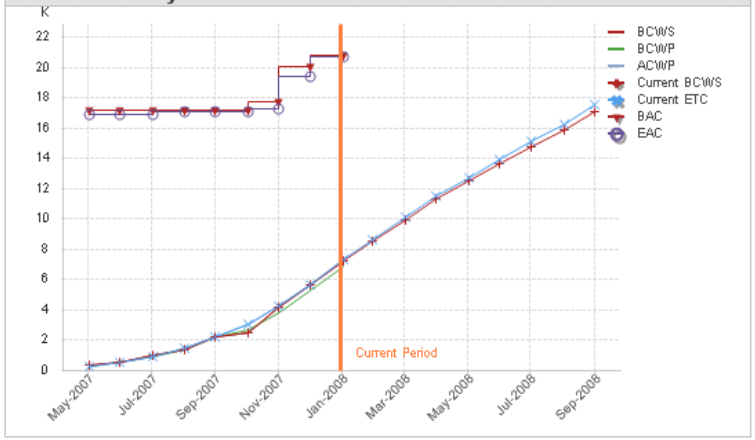
Contract: MOH-2 for 01/31/08

Help
Show Contract Info

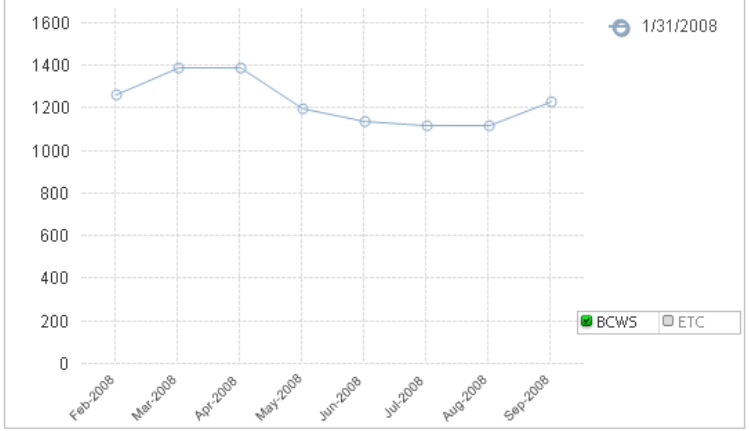
Statistical and Independent Forecasts as of 01/31/08

Element	ProjOff	EAC ...	Eac	CpiSpi	CumCpiFc	CurCpiFc	MovAvg3	MovAvg6	WtCostSch	PerfFctr	LinRegr	Micom	UserEac
2100 - PROJ MANAG...	Brown	1	621.6	671.61	656.48	654.56	648.00	660.50	653.24	635.8	659.60	675.80	656.5
2200 - SYS ENGINEE...	Price	1	283.4	313.20	314.44	388.54	314.78	315.24	311.37	309.8	306.25	313.97	314.3
2300 - FUNC INTEGRA	Price	0	513.6	510.26	507.09	527.60	503.15	509.15	505.13	500.2	506.12	512.35	700
3100 - SENSORS	Smith	0	1750	1,921.99	1,779.18	1,858.01	1,779.18	1,779.18	1,826.79	1739	1,858.01	1,921.99	1779.2
3200 - COMMUNICAT...	Tideman	1	2130	2,875.34	2,420.76	2,518.01	2,496.12	2,457.48	2,486.27	2173.8	2,438.29	2,922.62	2130
3300 - AUX EQUIP	Tideman	1	2409.8	2,350.69	2,134.52	2,905.82	2,041.40	2,138.79	2,331.08	2340	2,102.79	2,355.56	2331
3400 - ADPE	Zepka	0	594.6	582.56	569.12	791.85	587.63	577.40	584.21	586.6	524.90	591.18	791.8
3500 - COMP PROGR...	Pino	0	190.4	181.90	181.68	186.78	176.66	182.35	183.71	185.6	181.80	182.58	190.4
3600 - PCC	Zepka	1	5987.8	6,855.30	6,822.45	6,156.88	6,603.83	6,833.04	6,446.52	6096.8	7,039.46	6,865.96	6822.3
3700 - DATA DISPLAY	Troop	0	388	549.71	388.00	388.00	411.13	396.01	447.72	388	388.72	563.39	388
3800 - I & A	Troop	0	1464.8	1,349.72	1,508.36	1,663.64	1,470.44	1,510.32	1,399.64	1464.2	1,478.63	1,351.36	1663.5
4000 - SPARES	Blair	0	761.8	793.42	799.26	788.47	768.52	797.99	777.90	763.4	798.64	792.17	799.2
5100 - ENG DATA	Novak	1	32.2	58.59	44.15	58.58	50.00	44.79	45.65	36.8	40.26	59.58	49.2
5200 - MANAGEMENT...	Simmons	0	110.8	110.48	110.48	131.28	111.38	110.96	109.15	108	105.28	110.96	111.4
6100 - TEST FACILIT...	Smart	1	101	99.00	99.00	101.00	99.00	99.00	99.00	99	99.36	99.00	99

Time Phase Analysis as of 01/31/08



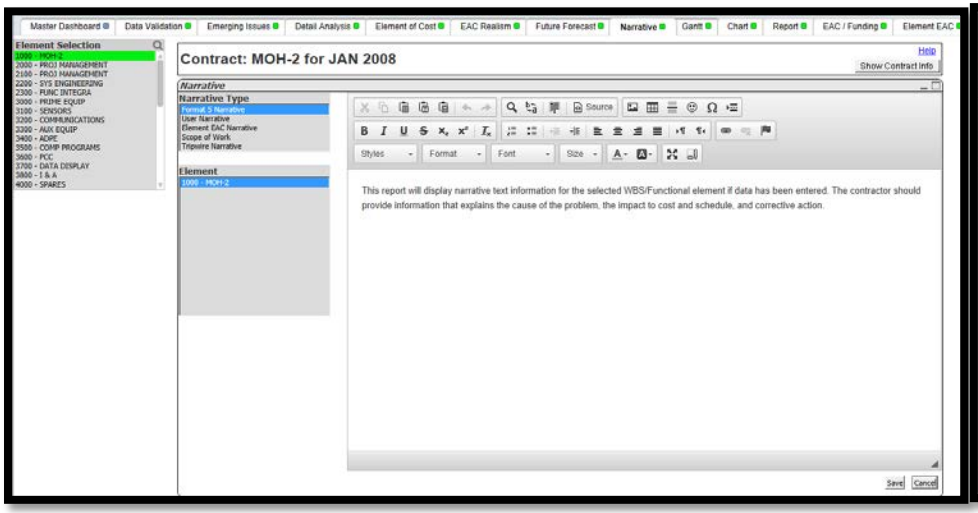
BCWS Comparison

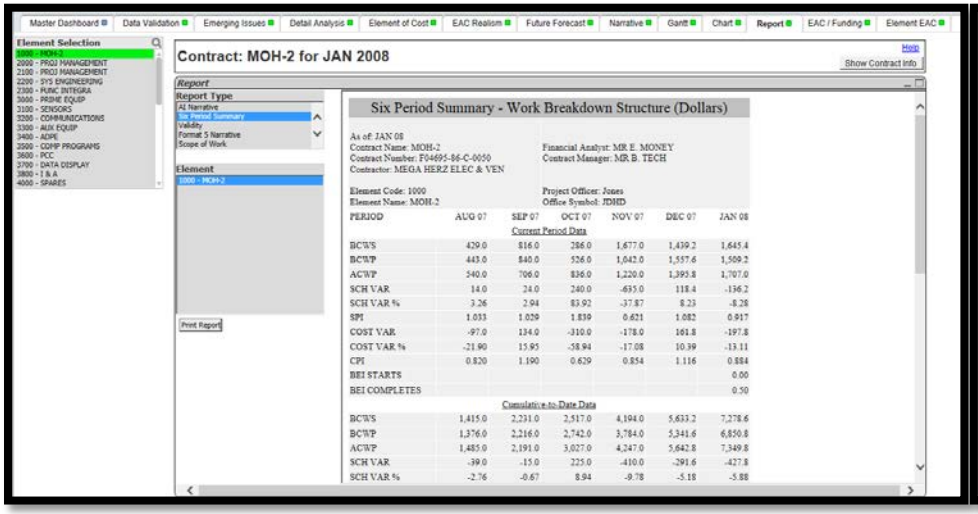


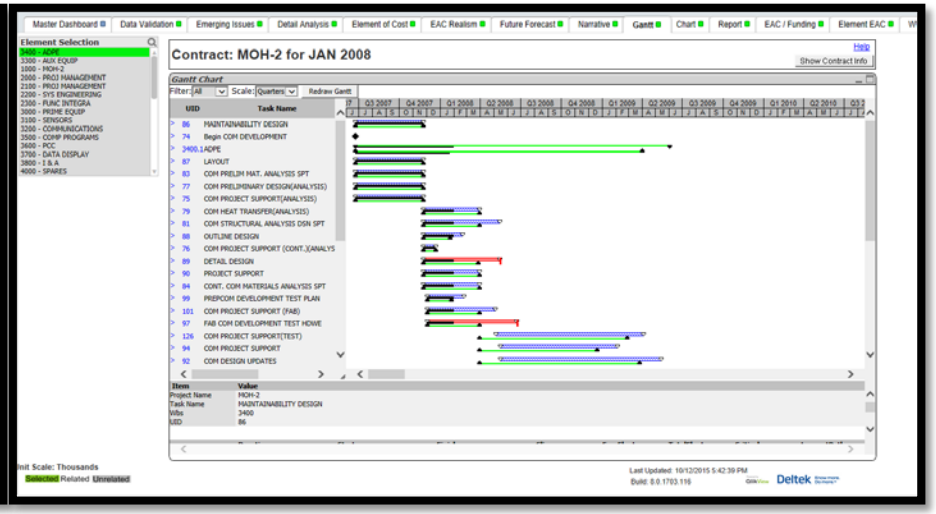
Future Forecasts Description

- Review user EACs and statistical EACs for each WBS element
- Compare past forecasts to assess accuracy
- Dashparts, Charts and Reports:
  - Statistical and Independent Forecasts
    - Table of common EAC calculations
  - Time Phase Analysis
    - Displays Budget, Earned, Actuals , Current ETC, BAC, and EAC so user can compare historical forecast to reality
  - BCWS Comparison
    - Displays earned or forecast for prior months

Dashboard Overview – Legacy Dashboards







Legacy Dashboard Descriptions

- Narrative
  - Displays notepad for users to enter and save narrative text associated with format 5, element EAC or scope of work
  - Basic formatting options available
  - Displays in Format 5 report once completed
- Charts/Reports
  - Choose from Desktop charts and reports
- Gantt
  - Displays Gantt chart imported from scheduling tool
  - Select a given task to view details

Customizing Dashboards in WAM

Customization Overview

- WAM dashboards (out-of-the-box) are comprehensive in the types of analysis they enable
- Also allows for extensive customization through additional dashboards and dashparts
- Qlikview platform may require developer or formal training but anyone can learn the basics
- Must have access to the WAM installation and Qlikview on the server for global edits

Start with an existing dashpart from a standard dashboard, copy to a new dashboard and modify!

Sample Custom Dashboard

Master Dashboard | Data Validation | Emerging Issues | Detail Analysis | Element of Cost | EAC Realism | Future Forecast | PM Dashboard

ContrName

- COBTRAIN
- DDG-20
- JSF
- Missile
- MOH-22
- Sat_A
- TAJI CTSS

Period

- Cumulative
- Current

- Amount
- Percent

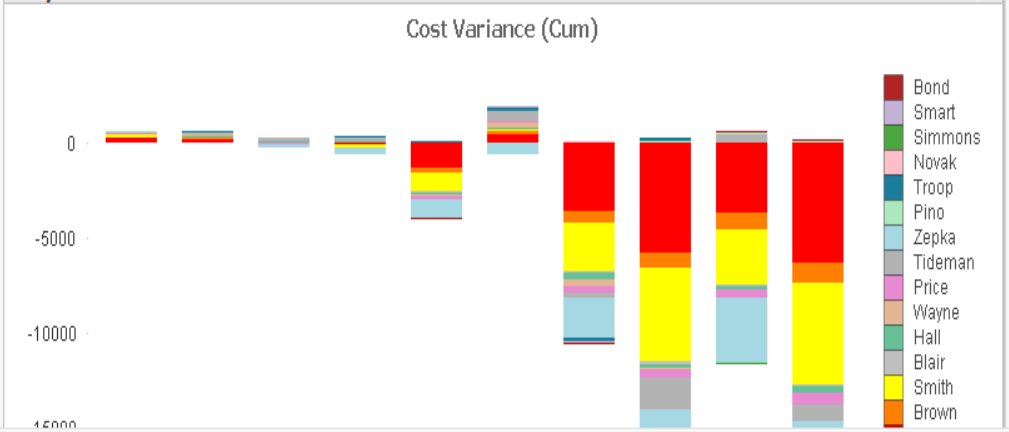
CAM Analysis

ProjOff	SV	CV	VAC	SV	CV	VAC
Jones	↓	↓	↓	0.00	0.00	0.00
Brown	↓	↓	↔	-149.06	-216.11	-39.71
Smith	↓	↓	↑	-594.30	-172.06	-350.78
Blair	↑	↑	↔	18.91	-123.09	-97.82
Hall	↔	↓	↔	179.66	-83.66	-29.86
Wayne	↔	↑	↔	0.00	0.00	0.00
Price	↔	↓	↔	-25.14	-589.69	-438.43
Tideman	↑	↓	↔	-4,367.76	-843.51	-1,182.71
Zepka	↓	↓	↔	-311.45	-3,825.42	-2,469.97
Pino	↓	↓	↔	-2.81	47.19	-19.40
Troop	↑	↓	↔	-630.66	-335.96	-344.63
Novak	↓	↓	↔	-93.87	-65.41	0.00
Simmons	↑	↓	↑	0.01	-187.82	-227.71
Smart	↔	↔	↔	-9.74	32.52	0.00
Bond	↑	↓	↔	44.43	58.38	0.00
-	↓	↓	↔	-39.00	-45.20	402.40

Cumulative Performance Summary as of 01/31/08

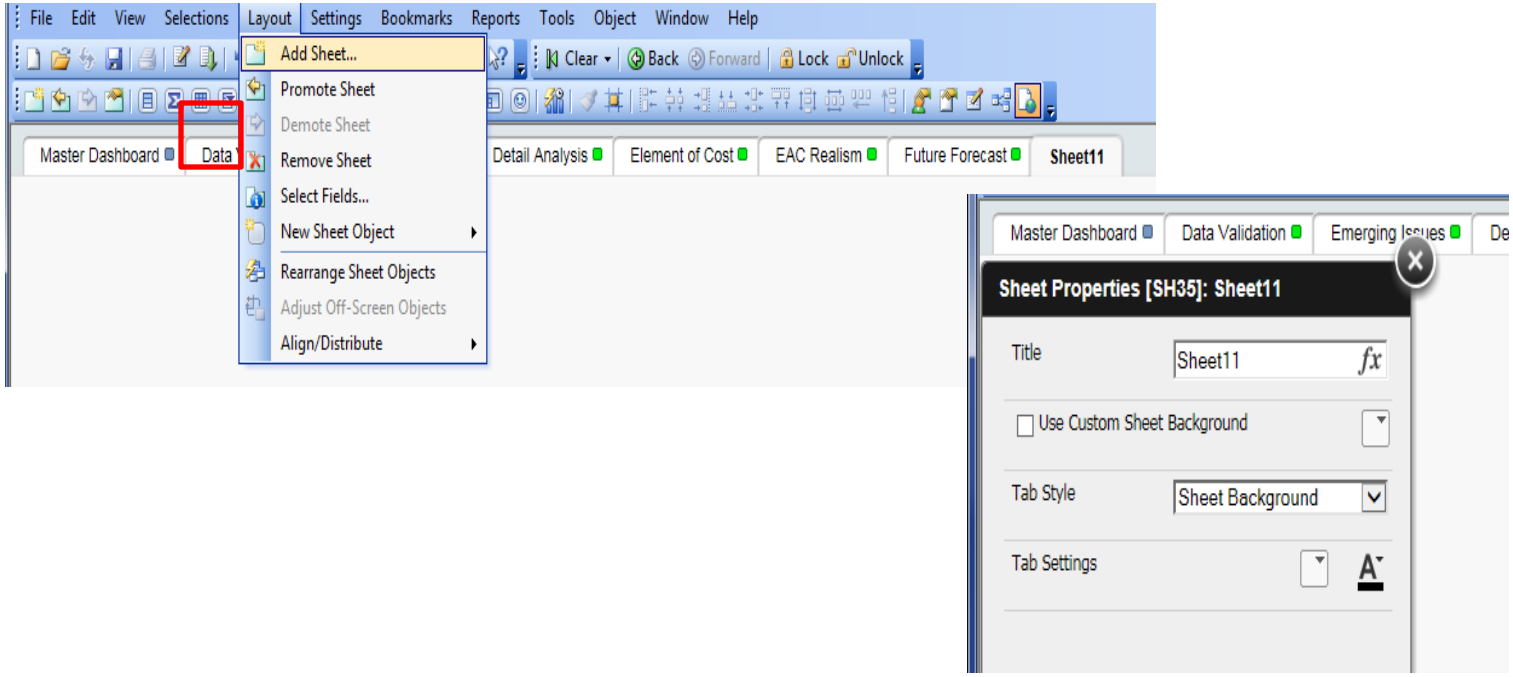
Elements	EndDate	Aug-2007	Sep-2007
Blair	BCWS	300.0	473.8
	BCWP	300.0	489.6
	ACWP	347.3	521.1
	SCH VAR	0.0	15.8
	SCH VAR %	0.00%	3.34%
	SPI	3.007	3.107
	COST VAR	-47.3	-31.6
	COST VAR %	-15.78%	-6.45%
	CPI	2.592	2.824
	BAC	8,968.91	8,968.91
	EAC	10,974.35	10,974.35
	VAC	-2,005.44	-2,005.44
Bond	BCWS	444.6	708.7
	BCWP	458.5	736.5
	ACWP	486.2	708.7
	SCH VAR	13.9	27.8
	SCH VAR %	3.12%	3.92%
	SPI	3.098	3.121
	COST VAR	-27.7	27.8
	COST VAR %	-6.05%	3.77%
	CPI	2.833	3.128
	BAC	9,559.20	9,559.20

CV by CAM



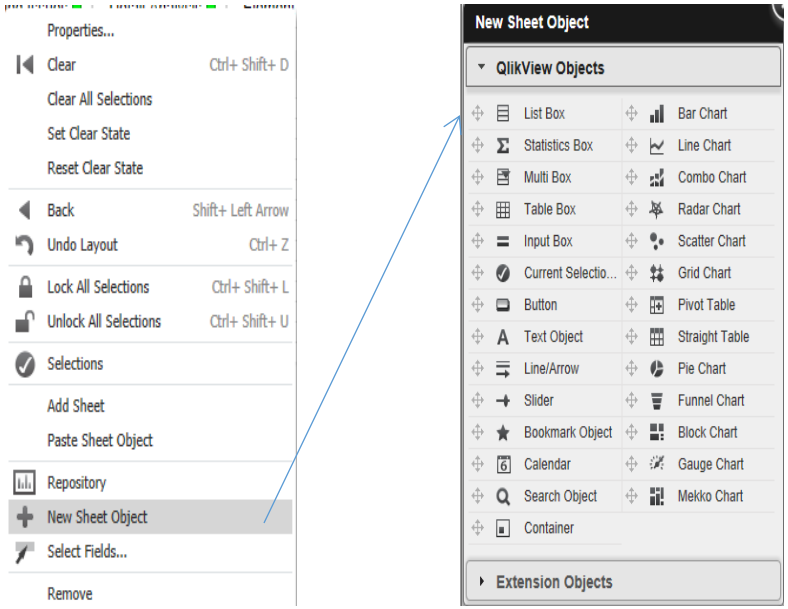
New Dashboard

- To create a new dashboard
  - Select Layout > Add sheet or select the Add Sheet icon
  - Use the Promote Sheet option to rearrange the order
  - Right-click the new sheet name and choose properties to rename the new sheet “PM Dashboard”



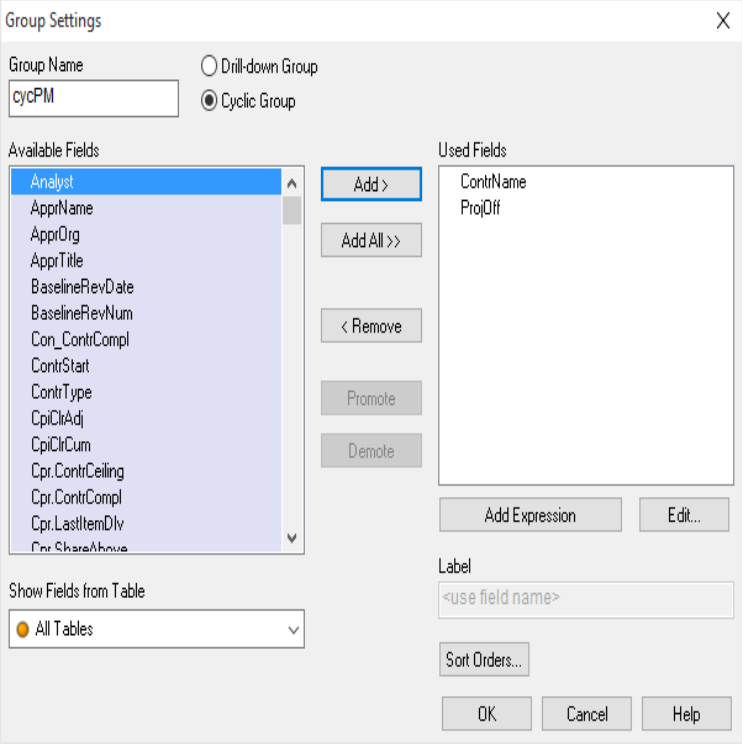
List Part

- Insert a list dashpart
  - Right-click anywhere in the dashboard and select New Sheet Object
  - From the list of QlikView Objects, drag and drop the List Box
  - Place in the upper left corner



List and Group Customization

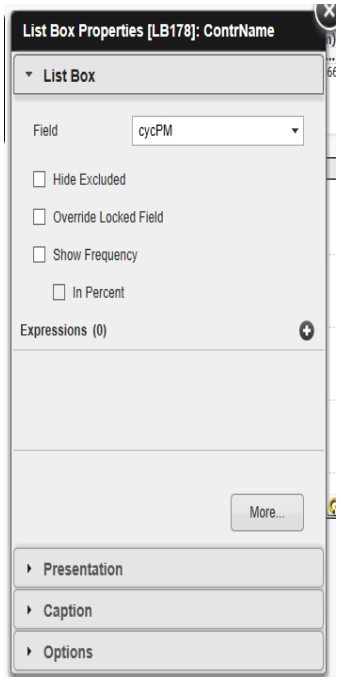
- Choose a “group” from the list or create a custom group
  - Select Settings > Document Properties > Groups tab
  - Select New to create a new group
  - Complete the Group Settings as follows which will create the following cyclic list Contract > CAM (Project Officer)



Custom groups or cycles can be used to drill down into unique codes or tags on your organization’s data

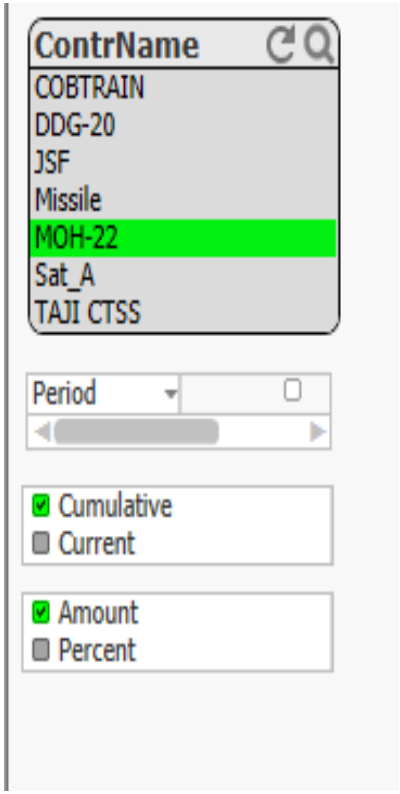
List Box Properties

- Open the properties dialog box for the new list
- Users can choose from a list of fields and pre-defined drill-downs as well as Expressions
  - Choose cycPM as the List Box field to add the cyclic group just created
  - Adding an expression such as Sum([BAC]) would display the BAC for each item in the list
- Users can also change the presentation style, caption, and options



Additional List Parts

- Copy the following list parts from the Master Dashboard and add to the PM Dashboard
  - Period
  - Cumulative/Current
  - Amount/Percent
- Drag and drop to the correct location
  - Note: If dashpart won't allow drag/drop right click to open the properties. Select the Options drop down and check "Allow Move/Size"

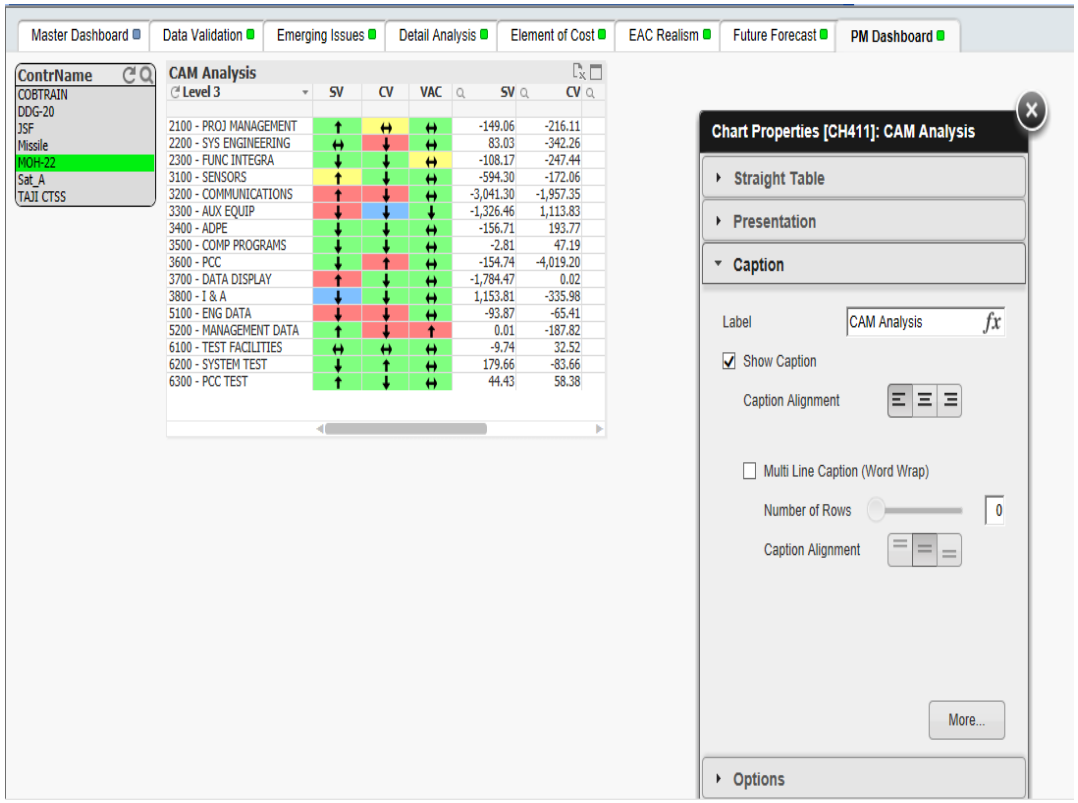


Sort

- Copy the sort object from the Master Dashboard and paste onto the custom one
  - Right-click the header bar of the existing object and select Copy
  - On the new dashboard, right-click and select Paste Sheet Object
  - When prompted choose the option to Create a copy
  - Drag and drop dashparts to the desired location

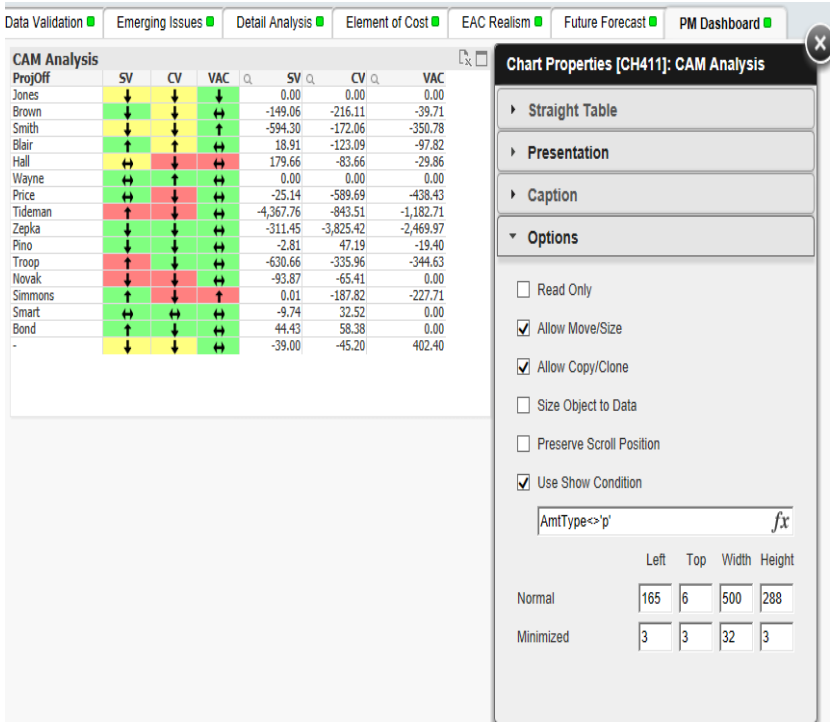
Modify Sort Window

- Open the properties dialog box to customize the existing dashpart
  - Delete the current Caption Label and enter “CAM Analysis”



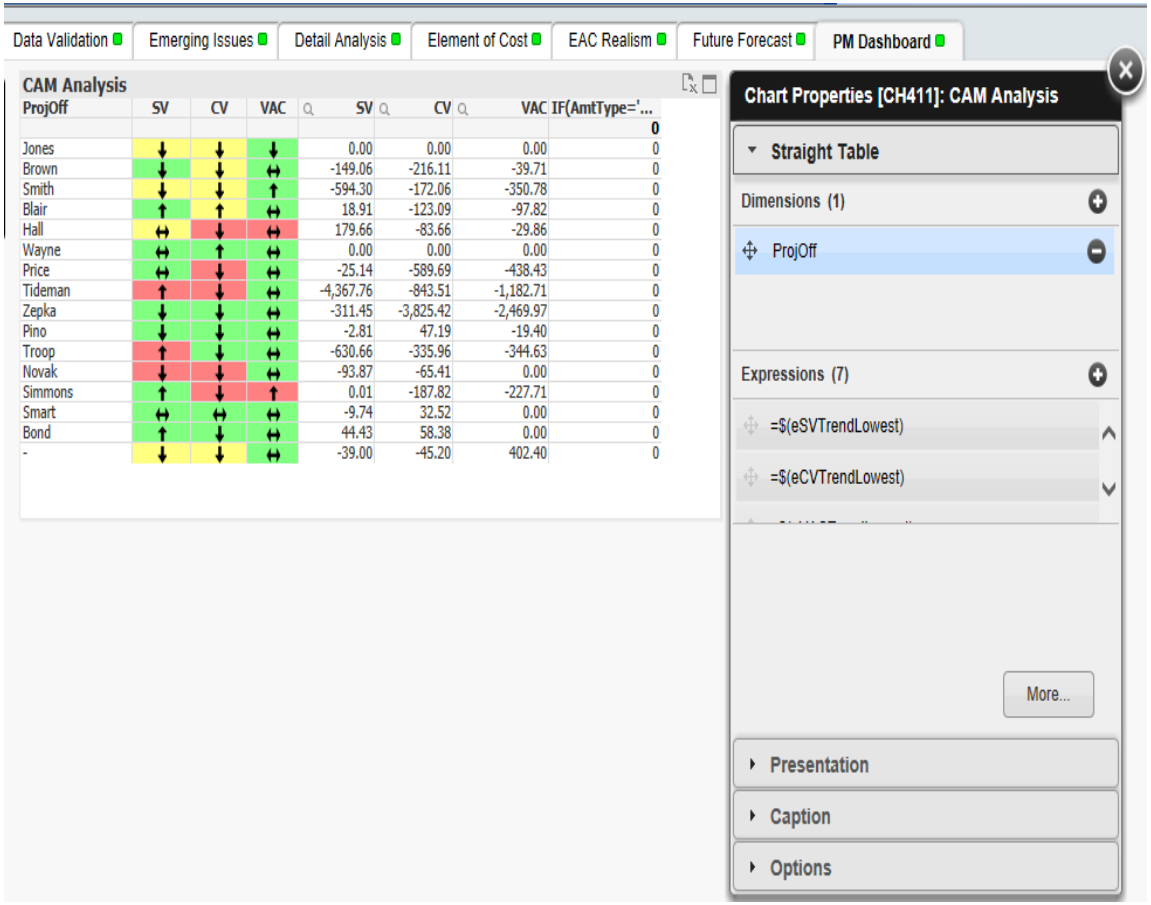
Modify Sort Window

- Change the size of the sort window to better accommodate the data
  - With chart properties open, select options and alter the width and height as shown below



Modify Sort Window

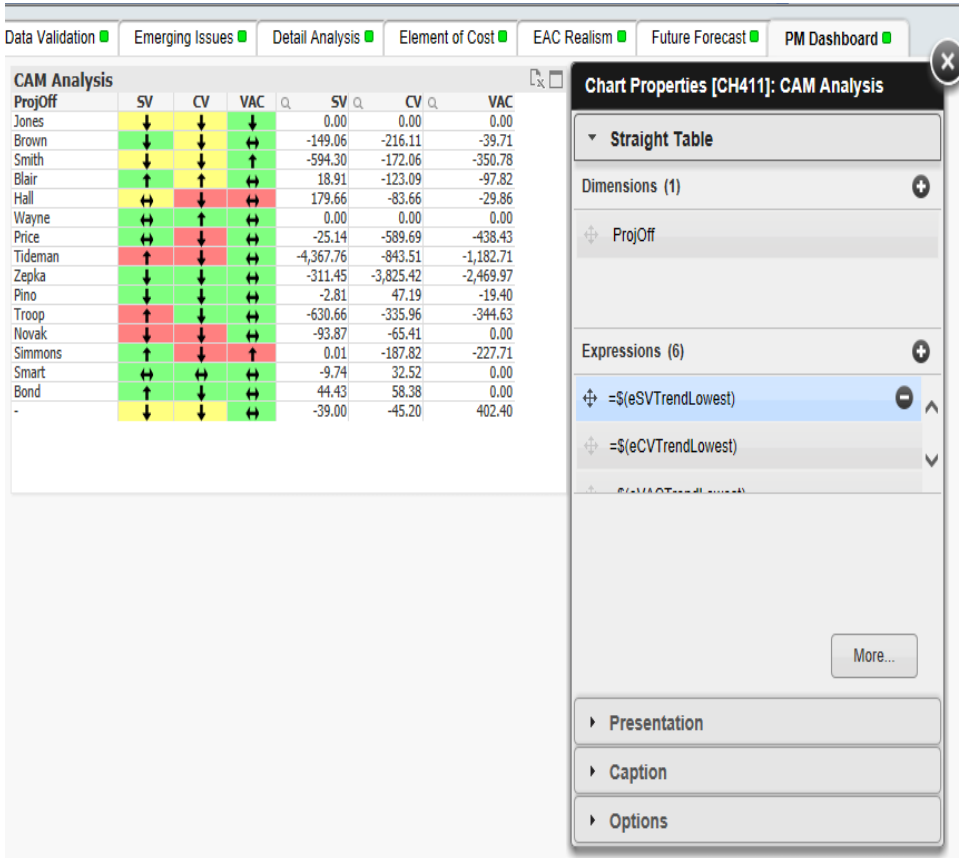
- Change the dimension shown to ProjOff



ProjOff	SV	CV	VAC	SV	CV	VAC	IF(AmtType='...
							0
Jones	↓	↓	↓	0.00	0.00	0.00	0
Brown	↓	↓	↔	-149.06	-216.11	-39.71	0
Smith	↓	↓	↑	-594.30	-172.06	-350.78	0
Blair	↑	↑	↔	18.91	-123.09	-97.82	0
Hall	↔	↓	↔	179.66	-83.66	-29.86	0
Wayne	↔	↑	↔	0.00	0.00	0.00	0
Price	↔	↓	↔	-25.14	-589.69	-438.43	0
Tideman	↑	↓	↔	-4,367.76	-843.51	-1,182.71	0
Zepka	↓	↓	↔	-311.45	-3,825.42	-2,469.97	0
Pino	↓	↓	↔	-2.81	47.19	-19.40	0
Troop	↑	↓	↔	-630.66	-335.96	-344.63	0
Novak	↓	↓	↔	-93.87	-65.41	0.00	0
Simmons	↑	↓	↑	0.01	-187.82	-227.71	0
Smart	↔	↔	↔	-9.74	32.52	0.00	0
Bond	↑	↓	↔	44.43	58.38	0.00	0
-	↓	↓	↔	-39.00	-45.20	402.40	0

Modify Sort Window

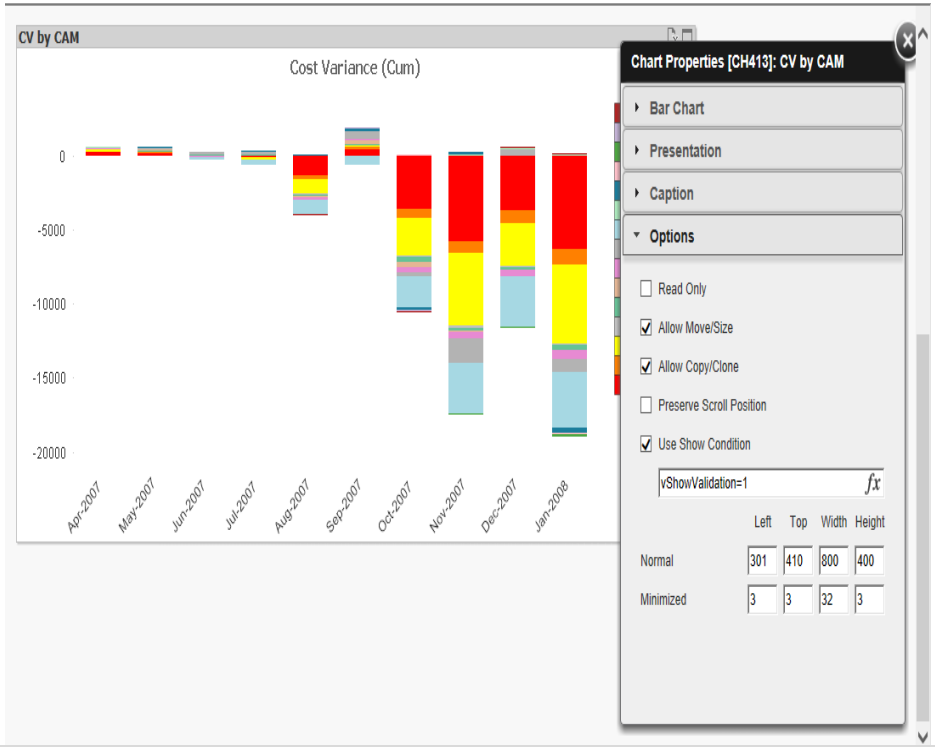
- View the expressions behind the existing columns by selecting the Straight Table drop down



ProjOff	SV	CV	VAC	SV	CV	VAC
Jones	↓	↓	↓	0.00	0.00	0.00
Brown	↓	↓	↔	-149.06	-216.11	-39.71
Smith	↓	↓	↑	-594.30	-172.06	-350.78
Blair	↑	↑	↔	18.91	-123.09	-97.82
Hall	↔	↓	↔	179.66	-83.66	-29.86
Wayne	↔	↑	↔	0.00	0.00	0.00
Price	↔	↓	↔	-25.14	-589.69	-438.43
Tideman	↑	↓	↔	-4,367.76	-843.51	-1,182.71
Zepka	↓	↓	↔	-311.45	-3,825.42	-2,469.97
Pino	↓	↓	↔	-2.81	47.19	-19.40
Troop	↑	↓	↔	-630.66	-335.96	-344.63
Novak	↓	↓	↔	-93.87	-65.41	0.00
Simmons	↑	↓	↑	0.01	-187.82	-227.71
Smart	↔	↔	↔	-9.74	32.52	0.00
Bond	↑	↓	↔	44.43	58.38	0.00
-	↓	↓	↔	-39.00	-45.20	402.40

Cost Variance Bar Chart

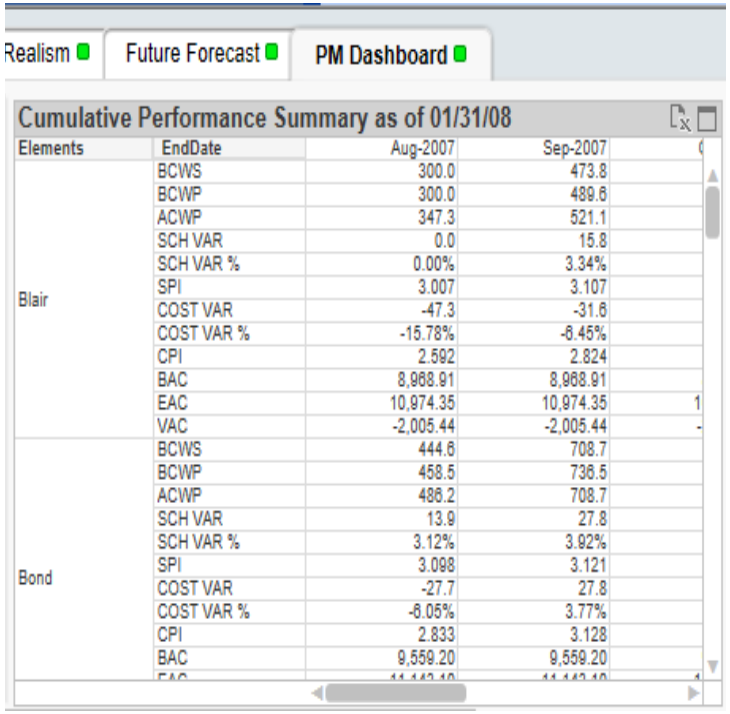
- Adjust the size of the chart and allow Move/Size so the chart can be repositioned



Sample screen shot includes customizations to this bar chart that we will not cover in this course.

Cumulative Performance Summary

- Copy the Cumulative Performance Summary table from the Detail Analysis Dashboard and paste next to the sort window
- Change the first dimension of the chart properties to ProjOff instead of WBS

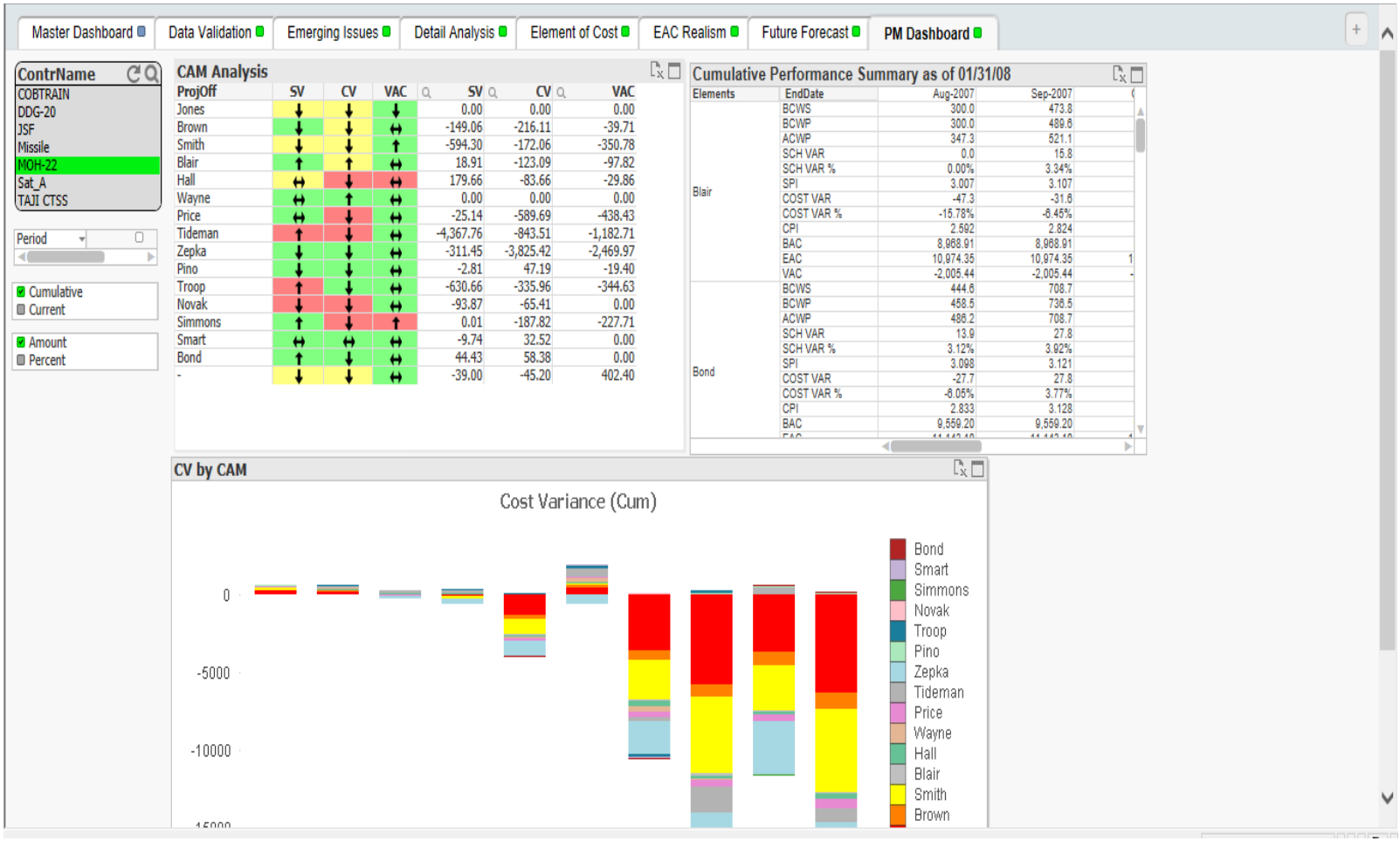


Realism | Future Forecast | PM Dashboard

Cumulative Performance Summary as of 01/31/08

Elements	EndDate	Aug-2007	Sep-2007	(
Blair	BCWS	300.0	473.8	
	BCWP	300.0	489.6	
	ACWP	347.3	521.1	
	SCH VAR	0.0	15.8	
	SCH VAR %	0.00%	3.34%	
	SPI	3.007	3.107	
	COST VAR	-47.3	-31.6	
	COST VAR %	-15.78%	-6.45%	
	CPI	2.592	2.824	
	BAC	8,968.91	8,968.91	
	EAC	10,974.35	10,974.35	1
	VAC	-2,005.44	-2,005.44	-
Bond	BCWS	444.6	708.7	
	BCWP	458.5	736.5	
	ACWP	486.2	708.7	
	SCH VAR	13.9	27.8	
	SCH VAR %	3.12%	3.92%	
	SPI	3.098	3.121	
	COST VAR	-27.7	27.8	
	COST VAR %	-6.05%	3.77%	
	CPI	2.833	3.128	
	BAC	9,559.20	9,559.20	

Completed Example



ProjOff	SV	CV	VAC	SV	CV	VAC
Jones	↓	↓	↓	0.00	0.00	0.00
Brown	↓	↓	↔	-149.06	-216.11	-39.71
Smith	↓	↓	↑	-594.30	-172.06	-350.78
Blair	↑	↑	↔	18.91	-123.09	-97.82
Hall	↔	↓	↔	179.66	-83.66	-29.86
Wayne	↔	↑	↔	0.00	0.00	0.00
Price	↔	↓	↔	-25.14	-589.69	-438.43
Tideman	↑	↓	↔	-4,367.76	-843.51	-1,182.71
Zepka	↓	↓	↔	-311.45	-3,825.42	-2,469.97
Pino	↓	↓	↔	-2.81	47.19	-19.40
Troop	↑	↓	↔	-630.66	-335.96	-344.63
Novak	↓	↓	↔	-93.87	-65.41	0.00
Simmons	↑	↓	↑	0.01	-187.82	-227.71
Smart	↔	↔	↔	-9.74	32.52	0.00
Bond	↑	↓	↔	44.43	58.38	0.00
-	↓	↓	↔	-39.00	-45.20	402.40

Elements	EndDate	Aug-2007	Sep-2007
Blair	BCWS	300.0	473.8
	BCWP	300.0	489.6
	ACWP	347.3	521.1
	SCH VAR	0.0	15.8
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	SPI	3.007	3.107
	COST VAR	-47.3	-31.6
	COST VAR %	-15.78%	-6.45%
	CPI	2.592	2.824
	BAC	8,968.91	8,968.91
	EAC	10,974.35	10,974.35
	VAC	-2,005.44	-2,005.44
Bond	BCWS	444.6	708.7
	BCWP	458.5	736.5
	ACWP	486.2	708.7
	SCH VAR	13.9	27.8
	SCH VAR %	3.12%	3.92%
	SPI	3.098	3.121
	COST VAR	-27.7	27.8
	COST VAR %	-6.05%	3.77%
	CPI	2.833	3.128
	BAC	9,559.20	9,559.20