Oracle® Construction and Engineering Analytics

Data Visualization Reference Guide

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Oracle Construction and Engineering Analytics Data Visualization Reference Guide,

G37563-03

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     Engineering Analytics

About This Guide

Provides details on out-of-the-box data visualizations delivered using Construction and Engineering Analytics.

Audience

This guide is intended for business analysts or database analysts who want to create data visualizations using Construction and Engineering Analytics.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Conventions

The following text conventions are used in this document.

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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About Construction and Engineering Analytics

Construction and Engineering Analytics is an industry solution built on a modern analytics platform delivering value to stakeholders to track project cost, schedule and risk.

With Construction and Engineering Analytics, you can centralize and curate information and discover insights through captivating data visualizations that empowers executives, decision-makers, and business analysts track KPIs, identify outliers, and make proactive decisions for your organization.

You can use Construction and Engineering Analytics to drive business decisions for your organization by:

- creating and sharing data visualizations combining data from subject areas of any of the following applications: Primavera P6 Enterprise Project Portfolio Management (P6 EPPM), and Primavera Unifier. For more details on the supported subject areas, see *Subject Area Field Reference Guide*.

- creating data sets by using data from Excel and CSV files for use in visualizations.

- blending and curating data from subject areas across products to uncover business insights through visualizations.

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Data Visualization Overview

You can create data visualizations in Construction and Engineering Analytics from the following data sources:

- Primavera P6 EPPM
- Primavera Unifier
- Unifier Essentials
- Using blended data

The dashboards / visualizations are broken up by data source and high-level personas for each data source. The blended data includes dashboards that are pulling data from multiple sources.

This guide provides a sampling of the various types of data visualizations you can create from each of the data sources listed above.

You can leverage the capabilities of Oracle Analytics Cloud (OAC) to build, visualize, analyze and, transform data with AI to create custom dashboards to suit your organizational needs. For more information, see Oracle Analytics Cloud Documentation.

Accessing Construction and Engineering Intelligence

When your organization is provisioned with Construction and Engineering Intelligence, you will receive the Construction and Engineering Intelligence Application URL in a Welcome email.

To sign in for the first time as a user of Construction and Engineering Intelligence:

1. In your Welcome email, click the application URL

> ✎ **Note:**
>
> For a list of supported browser versions, see Client System Requirements.

2. In the **Username** field, enter the user name assigned to you.

3. In the **Password** field, enter your password. After your initial sign in, you can proceed to Resetting Your Password.

4. Click **Sign In**.

5. Use the **Navigator** pane to explore the menu options available to you. For more details, see Navigation Overview.

About Your Login Credentials

New customers receive an initial email from `no-reply@oracle.com` to activate their Oracle Cloud account. The link has an expiration date mentioned at the bottom of the email. Make sure to activate your account before the link expires.

You will receive a separate welcome email that includes the URL to access Construction and Engineering Intelligence.

Tip:

- If you do not receive either email, check the spam or junk folder in your email account, or reach out to your customer success manager or Construction and Engineering Intelligence administrator.

- In case you miss the activation window to activate your Construction and Engineering Intelligence account, visit the URL listed in the initial welcome email and select the **Forgot Password?** link.

Resetting Your Password

You can reset your password for Construction and Engineering Intelligence at any time.

To reset your password:

1. Navigate to the **Oracle Cloud Account Sign In** page.

2. Select the **Need help Signing in? Click here** link.

3. On the **Forgot your password** page, enter your user name, and then click **Next**.

4. Review the on-screen message, and click **Submit**.

5. Select **Password Reset** in the email you receive.

6. On the **Reset Your Password** page, complete the **New Password** and **Confirm New Password** fields.

> **Note:**
>
> The **Confirm New Password** field will not be active until your new password meets the specified criteria.

7. Click **Submit**.

8. Select **Click here** to continue to navigate back to the **Oracle Cloud Account Sign In** page, and log in with your new password.
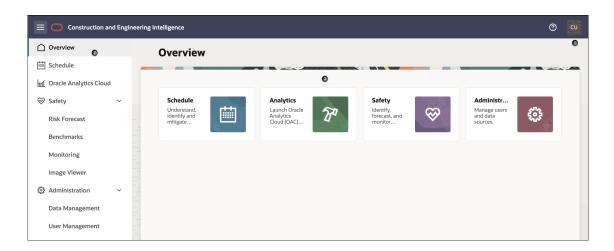
> **Note:**
>
> To allow time for system processing, it is recommended that you wait a few minutes before logging in with your new password.

Navigation Overview

The **Home** page of Construction and Engineering Intelligence displays the following menu and options.

Menu / Option	Description
☰ **Navigation Menu**	Select to expand or collapse the Navigator pane.
⑦ **Help**	The Help menu displays the following options: • **Oracle Help Center**: Select this option to access all guides in the Construction and Engineering Intelligence library. • **Training**: Select this option to access training resources available for Construction and Engineering Intelligence. • **Support**: Select this option if you need information on how to contact Oracle Support. • **About**: View the product version and build information of Construction and Engineering Intelligence.
1	Displays the initials of the signed-in user. Select this option to sign out of the application.

2	**Navigator**
	The Navigator displays the modules you can access based on your role and the modules your organization has purchased.
	• **Overview**: This is the main landing page.
	• **Safety**: Select this option to access the safety module.
	• **Analytics**: Select this option to connect, build, and view visualizations in Oracle Analytics Cloud. This module is displayed only if your organization has purchased the license for Construction and Engineering Analytics.
	• **Administration**: This option is available only if you are an administrator for Construction and Engineering Intelligence. The following options display under Administration:
	  – **Data Management**: Select this option to set up and manage data sources.
	  – **User Management**: Select this option to set up and manage users.

3	The selected module page is displayed. You can select the tiles displayed on the page to navigate within the selected module.

Navigating within the Application

You can navigate within the application using either the Navigator or the tiles on the page.

Using the Navigator:

1. Click the ☰**Navigation Menu** to display the **Navigator** pane.

2. In the **Navigator** pane, select a module.

Examples:

- To access the Administration module: From the **Navigation Menu**, select **Administration**.

- To access the Analytics module: From the **Navigation Menu**, select **Analytics**. A new tab opens with Oracle Analytics Cloud.

- To access the Benchmarks dashboard in the Safety module: From the **Navigation Menu** pane, select **Safety**, then select **Benchmarks**.

- To access the Monitoring dashboard in the Safety module: From the **Navigation Menu** select **Safety**, then select **Monitoring**.

Using tiles

From the **Overview** page or from any of the module pages, select the tiles displayed on the pane.

Examples:

- To select the Administration module: From the **Overview** page, select the **Administration** tile.

- To select the Analytics module: From the **Overview** page, select the **Analytics** tile. A new tab opens with Oracle Analytics Cloud .

- To access the Benchmarks dashboard in the Safety module: From the **Overview** page, select the **Safety** tile, then select the **Benchmarks** tile.

- To access the Monitoring dashboard in the Safety module: From the **Overview** page, select the **Safety** tile, then select **Monitoring** tile.

Keyboard Shortcuts

General Interactive Keyboard Shortcuts

Action	Keys
Move to the next tab stop	Tab
Move to the previous tab stop	Shift+Tab
Toggle between row selection and cell selection	F8
Open the column header menu, when focus is on the column header	Enter or Space
Increase column width, when focus is on the column header	Windows: Ctrl+Right arrow Mac: Ctrl+Cmd+Right arrow
Decrease column width, when focus is on the column header	Windows: Ctrl+Left arrow Mac: Ctrl+Cmd+Left arrow

Action	Keys
Move column to next column position, when focus is on the column header	Shift+Right arrow
Move column to the previous column position, when focus is on the column header	Shift+Left arrow
Sort ascending on the current column, when focus is on the column header	Windows: Alt+Up arrow Mac: Option+ Up arrow
Sort ascending on the current column in addition to the existing search columns, when focus is on the column header	Windows: Shift+Alt+Up arrow Mac: Shift+Option+ Up arrow
Sort descending on the current column, when focus is on the column header	Windows: Alt+Down arrow Mac: Option+ Down arrow
Sort descending on the current column in addition to the existing search columns, when focus is on the column header	Mac: Shift+Option+Down arrow
Move to next tab stop in column header menu, when column header menu is open	Tab
Move to previous tab stop in the column header menu, when column header menu is open	Shift+Tab
Close the column header menu, when the column header menu is open	Escape
Show help (if defined) for an item, when a single row is viewed and focus is on the column	Windows: Alt+F1 Mac: Option+F1

Date Picker

Action	Keys
Open the popup, when the input has focus and Display Mode is set to popup	Down arrow
Close the popup and focus the input, when Display Mode is set to popup	Escape
Focus the next element	Tab

> **Note:**
>
> When the Display Mode is set to popup and the last element is focused, pressing Tab moves focus to the first element.

Action	Keys
Focus the previous element	Shift+Tab **✐ Note:** When the Display Mode is set to popup and the first element is focused, pressing Tab moves focus to the last element.
Move focus to the same day of the previous week	Up arrow
Move focus to the same day of the next week	Down arrow
Move focus to the previous day	Left arrow
Move focus to the next day	Right arrow
Move focus to the first day of the current week	Home
Move focus to the last day of the current week	End
Change the grid of dates to the previous month	Page Up
Change the grid of dates to the next month	Page Down
Change the grid of dates to the previous year	Shift+Page Up
Change the grid of dates to the next year	Shift+Page Down
Select the focused date, when Show Time is off	Enter or Space
Select the focused date, when Show Time is on	Enter or Space, then Done

Accessing the Dashboards

To access the out-of-the-box visualizations delivered with Construction and Engineering Analytics:

1. From the ☰ **Navigation Menu**, click **Oracle Analytics Cloud**.

   A new tab opens with **Oracle Analytics Cloud**.

2. In the **Navigator**, select **Catalog**, **Shared Folders**, and **CIC Analytics OOTB Samples**.

3. Select any of the delivered dashboards.

   > **✐ Note:**
   >
   > These dashboards are refreshed with each release to include new or updated dashboards.

3
Leveraging the Sample Dashboards for your Organization

To customize the dashboards delivered with Construction and Engineering Analytics, you will need to perform the following tasks:

- Remap Fields Used in Data Visualizations.
- Remap Fields Used in Calculated Measures.

For more information on leveraging the capabilities of Oracle Analytics Cloud (OAC) to customize, build, and visualize dashboards to suit your organizational needs, see Oracle Analytics Cloud Documentation.

Remap Fields Used in Data Visualizations

Prerequisite

To ensure you don't overwrite the sample dashboards delivered with Construction and Engineering Analytics with your customizations:

1. Open the sample dashboard you plan to customize.
2. Click **Save As** and store it in a separate folder of your choice in the catalog.

Remapping Fields

To re-point or remap fields used in a data visualization:

1. Select a target visualization.
2. In the Data panel, select the field you will use to replace the current field in the selected visualization.
   For example, replace **Project Cost 21** column in the pivot table with the **Non-Commitment Costs** field.
3. Drag and drop the **Non-Commitment Costs** field on the **Project Cost 21**.
4. Save the workbook.

Remap Fields Used in Calculated Measures

Prerequisite

To ensure you don't overwrite the sample dashboards delivered with Construction and Engineering Analytics with your customizations:

1. Open the sample dashboard you plan to customize
2. Click **Save As** and store it in separate folder of your choice in the catalog.

Remapping Calculated Measures

To remap fields used in a calculated measure:

1. In the **Data** panel, expand **My Calculations**, and then, select the calculated measure you want to update.
    For example, select the **# Project Count** measure.

2. Right click **# Project Count** and then select **Edit Calculation**.

3. In the **Edit Calculation** dialog box, delete the current field, and then drag and drop the field you want to replace with.
    For example, delete the **Project ID** field, and drag and drop the **Project Object ID** field to replace in the calculated measure.

4. Click **Save**.

4

Sample Visualizations Using P6 EPPM Data

This section describes the sample data visualizations that are provided with Construction and Engineering Analytics using P6 EPPM data for Executives, Project Managers, and Portfolio Managers.

Cost Overview Dashboard

Description: The Cost Overview dashboard enables executives to derive insights about which countries have the highest At Completion Total Cost, and track cost variance over time.

Number of Canvases: 1

Default Canvas: Canvas 1

Canvas/Dashboard Name: Cost Overview

Data Source(s): P6 EPPM

Subject Area: P6 - Activity

Datasets: Not applicable

Canvas

Figure 4-1   Cost Overview Default Canvas

Table 1: Cost Overview - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Canvas 1	Country Name	P6 - Activity
Canvas 1	EPS ID Level 1	P6 - Activity
Canvas 1	Month Name	P6 - Activity
Canvas 1	Calendar Year	P6 - Activity

Table 2: Cost Overview - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Canvas 1	At Completion Total Cost	Fact	P6 - Activity
Canvas 1	Planned Total Cost	Fact	P6 - Activity
Canvas 1	Actual Cost	Calculated from Fact	P6 - Activity
Canvas 1	Planned Cost	Calculated from Fact	P6 - Activity

Table 3: Cost Overview - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute	Subject Area / Dataset
Canvas 1	Dashboard	No	Calendar Year	P6 - Activity

Table 4: Cost Overview - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Actual Cost	CASE WHEN Month Name < '2015-11' THEN RSUM(Actual Total Cost) ELSE NULL END	Derived From Fact	P6 - Activity
Planned Cost	RSUM(Planned Total Cost)	Derived From Fact	P6 - Activity

Earned Value and Risk Analysis Dashboard

Description: The Earned Value and Risks dashboard tracks costs and risks. Executives or PMs will be able to use this for getting information about EV, EAC for individual project managers across the portfolio or see how their organization performed on these parameters on a yearly or quarterly basis. Risk exposures are displayed by location and/or each project. This can help in devising better risk mitigating strategies.

Number of Canvases: 2

Default Canvas: Earned Value

Canvas/Dashboard Name: Earned Value and Risk Analytics

Data Source(s): P6 - EPPM

Subject Area: P6 - Activity

Datasets: Not applicable

Canvases

Figure 4-2   Earned Value
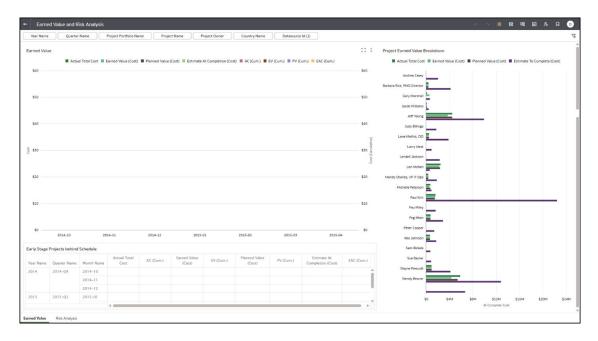
Figure 4-3   Risk Analytics
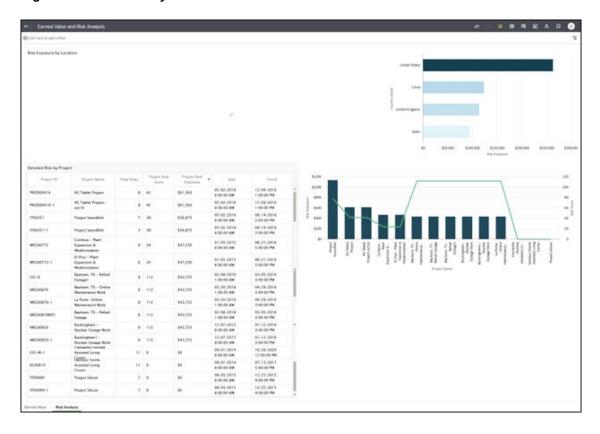
Table 5: Earned Value and Risk Analysis - Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Earned Value	Calendar	Year Name	P6 - Activity
Earned Value	Calendar	Quarter Name	P6 - Activity
Earned Value	Portfolio	Portfolio Name	P6 - Activity
Earned Value	Project	Project Name	P6 - Activity
Earned Value	Project	Project Owner	P6 - Activity
Earned Value	Project	Country Name	P6 - Activity
Earned Value	Project	Datasource ID	P6 - Activity
Earned Value	Calendar	Month Name	P6 - Activity
Earned Value	Calendar	Calendar Date	P6 - Activity
Risk Analysis	Project	Country Name	P6 - Activity
Risk Analysis	Project	Project ID	P6 - Activity
Risk Analysis	Project	Project Name	P6 - Activity
Risk Analysis	Project	Project Risk Score	P6 - Activity
Risk Analysis	Project	Project Risk Exposure	P6 - Activity
Risk Analysis	Project	Start	P6 - Activity
Risk Analysis	Project	Finish	P6 - Activity

Table 6: Earned Value and Risk Analysis - Measures

Canvas	Measure	Measure Type	Subject Area / Dataset
Earned Value	Actual Total Cost	Fact	P6 - Activity
Earned Value	Earned Value (Cost)	Fact	P6 - Activity
Earned Value	Planned Value (Cost)	Fact	P6 - Activity
Earned Value	Estimate At Completion (Cost)	Fact	P6 - Activity
Earned Value	AC (Cum.)	Calculated from Fact	P6 - Activity
Earned Value	PV (Cum.)	Calculated from Fact	P6 - Activity
Earned Value	EAC (Cum.)	Calculated from Fact	P6 - Activity
Earned Value	EV (Cum.)	Calculated from Fact	P6 - Activity
Earned Value	Estimate to Complete	Fact	P6 - Activity
Risk Analysis	Risk Exposure	Calculated from Fact	P6 - Activity
Risk Analysis	Total Risks	Calculated from Fact	P6 - Activity
Risk Analysis	Risk Score	Calculated from Fact	P6 - Activity

Table 7: Earned Value and Risk Analysis - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Earned Value	Dashboard	No	Year Name	P6 - Activity
Earned Value	Dashboard	No	Quarter Name	P6 - Activity
Earned Value	Dashboard	No	Portfolio Name	P6 - Activity
Earned Value	Dashboard	No	Project Name	P6 - Activity
Earned Value	Dashboard	No	Project Owner	P6 - Activity

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Earned Value	Dashboard	No	Country Name	P6 - Activity
Earned Value	Dashboard	No	Datasource ID	P6 - Activity
Earned Value	Visualization	No	Calendar Date	P6 - Activity
Risk Analysis	Visualization	No	Risk Exposure	P6 - Activity
Risk Analysis	Visualization	No	Total Risks	P6 - Activity

Table 8: Earned Value and Risk Analysis - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Risk Exposure	SUM(Project Risk Exposure)	Derived From Fact	P6 - Activity
Risk Score	SUM(Project Risk Score)	Derived From Fact	P6 - Activity
AC (Cum.)	RSUM(Actual Total Cost)	Derived From Fact	P6 - Activity
EV (Cum.)	RSUM(Earned Value (Cost))	Derived From Fact	P6 - Activity
PV (Cum.)	RSUM(Planned Value (Cost))	Derived From Fact	P6 - Activity
EAC (Cum.)	RSUM(Estimate At Completion (Cost))	Derived From Fact	P6 - Activity
Total Risks	COUNT(DISTINCT RiskID by Project ID)	Derived From Fact	P6 - Activity

Overview - Portfolio, Risk, EV

Description: With a single view, Portfolio Managers and Executives can view their portfolio's cost performance and clearly identify poor performing portfolios and troubled projects. This visibility allows for collaboration and communication with Project managers to preemptively identify and resolve possible issues.

Number of Canvases: 4

Default Canvas: Overview

Canvas/Dashboard Name: Overview-Portfolio, Risk, EV

Data Source(s): P6 - EPPM

Subject Areas: P6 – Activity, P6 – Project History, P6 – Resource Utilization, P6 – Burn Down

Datasets: Not applicable

Canvases

Figure 4-4   Executive Portfolio Performance
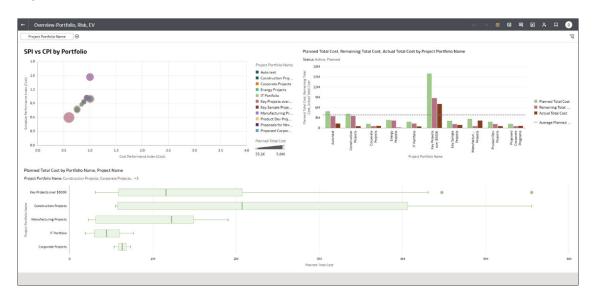
Table 9: Overview – Portfolio, Risk, EV - Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Overview	Calendar	Year Name	P6 - Activity
Overview	Calendar	Quarter Name	P6 - Activity
Overview	Portfolio	Portfolio Name	P6 - Activity
Overview	Project	Project Name	P6 - Activity
Overview	Project	Project Owner	P6 - Activity
Overview	Project	Country Name	P6 - Activity
Overview	Project	Datasource ID	P6 - Activity
Overview	Project	Country Name	P6 - Activity
Overview	Calendar	Month Name	P6 - Activity
Portfolio Analysis	Project	Portfolio Name	P6 - Activity
Portfolio Analysis	Project	Current Phase Value	P6 - Activity
Executive Portfolio Performance	Portfolio	Portfolio Name	P6 – Project History
Executive Portfolio Performance	Project	Project Status	P6 - Activity
Executive Portfolio Performance	Project	Project Name	P6 - Activity
Executive Portfolio Performance	Project	Project Name	P6 – Project History
Trending Analysis	Calendar	Month Name	P6 - Project History
Trending Analysis	Project	Portfolio Name	P6 - Project History
Trending Analysis	Resource	Department Description	P6 – Resource Utilization
Trending Analysis	Resource Assignment	Resource Name	P6 – Burn Down
Trending Analysis	Calendar	Day Name	P6 – Burn Down

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Trending Analysis	Resource	Resource Type	P6 – Burn Down
Trending Analysis	Activity	Activity Name	P6 - Activity
Trending Analysis	Activity	Critical	P6 - Activity

Table 10: Overview – Portfolio, Risk, EV - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Overview	Cost Variance	Fact	P6 - Activity
Overview	Performance % Complete	Fact	P6 - Activity
Overview	Pct of Projects Over Budget	Calculated from Fact	P6 - Activity
Overview	Pct of Projects Behind Schedule	Calculated from Fact	P6 - Activity
Overview	Schedule Pct Complete	Calculated from Fact	P6 - Activity
Overview	Cost Pct Complete	Calculated from Fact	P6 - Activity
Overview	Units Pct Complete	Calculated from Fact	P6 - Activity
Overview	Delay %	Calculated from Fact	P6 - Activity
Overview	Remaining	Calculated from Fact	P6 - Activity
Overview	Completed	Calculated from Fact	P6 - Activity
Overview	Cost Overrun %	Calculated from Fact	P6 – Activity
Overview, Portfolio Analysis, Executive Portfolio Performance, Trending Analysis	Remaining Total Cost	Fact	P6 – Activity
Overview, Executive Portfolio Performance	Actual Total Cost	Fact	P6 – Activity
Overview, Portfolio Analysis	At Completion Total Cost	Fact	P6 – Activity
Overview, Portfolio Analysis	# Of Projects	Fact	P6 - Activity
Portfolio Analysis	# Of Activities	Fact	P6 - Activity
Executive Portfolio Performance	Schedule Performance Index	Fact	P6 - Activity
Executive Portfolio Performance	Cost Performance Index	Fact	P6 - Activity
Executive Portfolio Performance, Trending Analysis	Planned Total Cost	Fact	P6 - Activity
Trending Analysis	Available Units	Fact	P6 – Resource Utilization
Trending Analysis	Actual Units		
Trending Analysis	Limit		
Trending Analysis	Remaining Cost Burn	Fact	P6 – Burn Down

Table 11: Overview – Portfolio, Risk, EV - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Overview, Portfolio Analysis	Dashboard	No	Year Name	P6 - Activity

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Overview, Portfolio Analysis	Dashboard	No	Quarter Name	P6 - Activity
Overview, Portfolio Analysis	Dashboard	No	Portfolio Name	P6 - Activity
Overview, Portfolio Analysis	Dashboard	No	Project Name	P6 - Activity
Overview, Portfolio Analysis	Dashboard	No	Project Owner	P6 - Activity
Overview, Portfolio Analysis	Dashboard	No	Country Name	P6 - Activity
Overview, Portfolio Analysis	Dashboard	No	Datasource ID	P6 - Activity
Executive Portfolio Performance, Trending Analysis	Dashboard	No	Portfolio Name	P6 – Project History
Overview	Visualization	No	Performance % Complete	P6 - Activity
Overview	Visualization	No	Delay %	P6 - Activity
Overview	Visualization	No	Cost Overrun %	P6 - Activity
Overview	Visualization	No	Country Name	P6 - Activity
Overview	Visualization	No	At Completion Total Cost	P6 - Activity
Executive Portfolio Performance	Visualization	No	Project Status	P6 - Activity
Executive Portfolio Performance	Visualization	No	Portfolio Name	P6 - Project History
Trending Analysis	Visualization	No	Department Description	P6 – Resource Utilization
Trending Analysis	Visualization	No	Resource Name	P6 - Burndown
Trending Analysis	Visualization	No	Resource Type	P6 - Burndown
Trending Analysis	Visualization	No	Portfolio Name	P6 - Project History
Trending Analysis	Visualization	No	Critical	P6 - Activity
Trending Analysis	Visualization	Yes	"Primavera - Activity"."Costs"."Planned Total Cost">0	P6 - Activity

Table 12: Overview – Portfolio, Risk, EV - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Units Pct Complete	"Primavera - Activity"."Percent Complete"."Units % Complete" / 100.0	Derived From Fact	P6 - Activity
Cost Pct Complete	"Primavera - Activity"."Percent Complete"."Cost % Complete" / 100.0	Derived From Fact	P6 – Activity

Calculated Member	Expression	Source	Subject Area / Dataset
Schedule Pct Complete	"Primavera - Activity"."Percent Complete"."Schedule % Complete" / 100.0	Derived From Fact	P6 – Activity
Pct of Projects Behind Schedule	SUM(CASE WHEN ATTRIBUTE("Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)" by "Primavera - Activity"."General - (Project)"."Project ID") < 0.95 THEN 1 ELSE 0 END by "Primavera - Activity"."General - (Project)"."Datasource Id") / "Primavera - Activity"."Metrics"."# of Projects"	Derived From Fact	P6 – Activity
Pct of Projects Over Budget	FILTER("Primavera - Activity"."Metrics"."# of Projects" USING "Primavera - Activity"."Budget - (Project)"."Current Variance" > 0.0) / "Primavera - Activity"."Metrics"."# of Projects"	Derived From Fact	P6 – Activity
Delay %	"Primavera - Activity"."Earned Value - (Units)"."Schedule Variance Index (Units)" * -1	Derived From Fact	P6 – Activity
Remaining	"Primavera - Activity"."Units"."Remaining Labor Units"	Derived From Fact	P6 – Activity
Completed	"Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)"	Derived From Fact	P6 - Activity
Cost Overrun %	("Primavera - Activity"."Costs"."At Completion Total Cost" - "Primavera - Activity"."Costs"."Baseline Project Total Cost") / "Primavera - Activity"."Costs"."Baseline Project Total Cost"	Derived From Fact	P6 - Activity

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Key Milestones Tracking Dashboard

Description: This project gives an Executive / PMO insights to track key milestones for projects/portfolios and identify variance over time. It can be used to track milestone activities based on the variance status that is ahead, on, or behind schedule. These activities can also be traced based on their activity status.

Number of Canvases: 2

Default Canvas: Key Milestones

Canvas/Dashboard Name: Key Milestones Tracking

Data Source(s): P6 EPPM

Subject Areas: P6 – Activity

Datasets: Not applicable

Canvases

Figure 4-5   Key Milestones
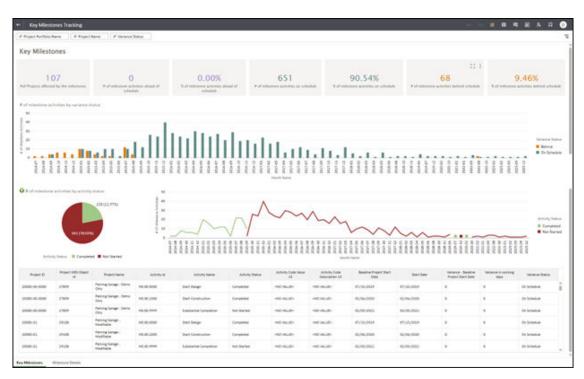
Figure 4-6 Milestone Details
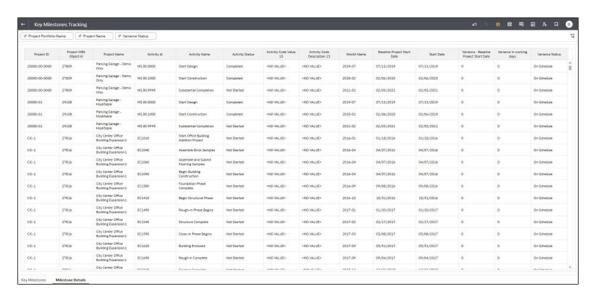
Table 13: Key Milestones Tracking- Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Key Milestones	Calendar	Month Name	P6 - Activity
Key Milestones	Activity	Activity Status	P6 - Activity
Key Milestones	Project	Project Id	P6 - Activity
Key Milestones	Project	Unique Project WBS ID	P6 - Activity
Key Milestones	Project	Project Name	P6 - Activity
Key Milestones	Activity	Activity ID	P6 - Activity
Key Milestones	Activity	Activity Name	P6 - Activity
Key Milestones	Activity	Key Milestones Value	P6 - Activity
Key Milestones	Activity	Key Milestones Description	P6 - Activity
Key Milestones	Activity	Baseline Project Start	P6 - Activity
Key Milestones	Activity	Start	P6 - Activity
Key Milestones	Activity	Variance Baseline Project Start Date	P6 - Activity

Table 14: Key Milestones Tracking- Custom Dimensions

Dimension	Expression	Source	Subject Area / Dataset
Variance in working days	"Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date"/8	Derived from Dimension	P6 - Activity

Dimension	Expression	Source	Subject Area / Dataset
Variance Status	CASE WHEN ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 > 0 THEN 'Ahead' WHEN ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 < 0 THEN 'Behind' WHEN ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 = 0 THEN 'On Schedule' ELSE '' END	Derived from Dimension	P6 - Activity

Table 15: Key Milestones Tracking - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Key Milestones	# of Activities	Fact	P6 - Activity

Table 16: Key Milestones Tracking - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
% of activities behind schedule	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 < 0))/"Primavera - Activity"."Metrics"."# of Activities"	Derived From Fact	P6 - Activity
% of activities on schedule	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 = 0))/"Primavera - Activity"."Metrics"."# of Activities"	Derived From Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
% of activities ahead of schedule	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."Durations - (Activity)"."Variance - Baseline Project Start Date")/8 > 0))/"Primavera - Activity"."Metrics"."# of Activities"	Derived From Fact	P6 - Activity

Table 17: Key Milestones Tracking - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Key Milestones	Visualization	No	Activity Type	P6 - Activity
Key Milestones	Dashboard	No	Variance Status	P6 - Activity
Key Milestones	Dashboard	No	Project Name	P6 - Activity
Key Milestones	Dashboard	No	Portfolio Name	P6 - Activity

Table 18: Key Milestones Tracking - Data Actions

Data Action Name	Action Type	Anchor To	Target	Canvas Link	Pass Values	Multiselection
Navigate to Milestone details	Analytics Link	None	Key Milestones Tracking	Milestone Details	All	On
P6 Link to Activities	URL Navigation	Project Name	Opens P6 Links - Link to Activities	Milestone Details	All	On

Integrated Schedule Delivery KPI Dashboard

Number of Canvases: 1

Default Canvas: IB_ActivityHistoryData

Canvas/Dashboard Name: Integrated Schedule Delivery KPI

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity History

Datasets: Not applicable

Dashboard

Canvases

Figure 4-7   Integrated Schedule KPI Dashboard
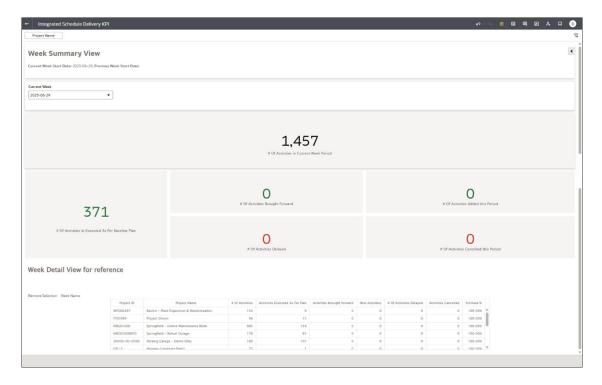
Table 19: Integrated Schedule Delivery KPI - Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
IB_ActivityHistoryData	Project	Project Id	P6 – Activity History
IB_ActivityHistoryData	Project	Project Name	P6 – Activity History
ALL Canvas	Project	WBS	P6 – Activity History
Details Canvases	Activity	Activity ID	P6 – Activity History
Details Canvases	Activity	Activity Name	P6 – Activity History
Details Canvases	Activity	Primary Resource	P6 – Activity History
Details Canvases	Activity	Planned Start	P6 – Activity History
Details Canvases	Activity	Planned Finish	P6 – Activity History

Table 20: Integrated Schedule Delivery KPI – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
IB_ActivityHistoryData	# of Activities	Calculated from Fact	P6 – Activity History
IB_ActivityHistoryData	Activities Executed as per Plan	Calculated from Fact	P6 – Activity History
IB_ActivityHistoryData	Activities brought forward	Calculated from Fact	P6 – Activity History
IB_ActivityHistoryData	Activities Delayed	Calculated from Fact	P6 – Activity History
IB_ActivityHistoryData	New Activities	Calculated from Fact	P6 – Activity History

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
IB_ActivityHistoryData	Activities Canceled	Calculated from Fact	P6 – Activity History
IB_ActivityHistoryData	Formula %	Calculated from Fact	P6 – Activity History

Table 21: Integrated Schedule Delivery KPI – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
IB_ActivityHistoryData	Dashboard	No	Project Name	P6 - Activity History
Activities Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}')	P6 - Activity History
Activities Executed As Per Baseline Plan Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') AND CAST("Primavera - Activity History"."Dates - (Activity)"."Actual Finish" AS DATE) = CAST("Primavera - Activity History"."Dates - (Activity)"."Baseline Project Finish" AS DATE)	P6 - Activity History

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Activities Brought Forward Details	Visual	Yes	MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") < MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id")	P6 - Activity History
Activities Brought Forward Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_currentweek}{2015-09-06}')	P6 - Activity History

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Activities Brought Forward Details	Visual	Yes	RANK(MAX(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") = 1	P6 - Activity History
Delayed Activities Details	Visual	Yes	MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") > MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id")	P6 - Activity History

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Delayed Activities Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}')	P6 - Activity History
Delayed Activities Details	Visual	Yes	RANK(MAX(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") = 1	P6 - Activity History
New Activities Details	Visual	Yes	CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END))	P6 - Activity History

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
New Activities Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}')	P6 - Activity History
Cancelled Activities Details	Visual	Yes	CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END))	P6 - Activity History
Cancelled Activities Details	Visual	Yes	"Primavera - Activity History"."Calendar"."Week Name" = ('@{pv_previousweek}{2015-08-30}') OR "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}')	P6 - Activity History

Table 22: Integrated Schedule Delivery KPI – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
# of Activities	FILTER("Primavera - Activity History"."Metrics"."# of Activities" using "Primavera - Activity History"."Calendar"."Week Name" = '@{pv_currentweek}{2015-09-06}')	Derived From Fact	P6 - Activity History
Activities Executed as per Plan	SUM(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN (CASE WHEN CAST("Primavera - Activity History"."Dates - (Activity)"."Actual Finish" AS DATE) = CAST("Primavera - Activity History"."Dates - (Activity)"."Baseline Project Finish" AS DATE) THEN 1 ELSE 0 END) END)	Derived From Fact	P6 - Activity History
Activities brought forward	SUM(CASE WHEN MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") < MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") THEN 1 ELSE 0 END)	Derived From Fact	P6 - Activity History

Calculated Member	Expression	Source	Subject Area / Dataset
Activities Delayed	SUM(CASE WHEN MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") > MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") THEN 1 ELSE 0 END)	Derived From Fact	P6 - Activity History
New Activities	COUNT (CASE WHEN (CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END) NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)) THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)	Derived From Fact	P6 - Activity History

Calculated Member	Expression	Source	Subject Area / Dataset
Activities Canceled	COUNT(CASE WHEN(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek}{2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END) NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek}{2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)) THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)	Derived From Fact	P6 - Activity History

Calculated Member	Expression	Source	Subject Area / Dataset
Formula %	((SUM(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN (CASE WHEN CAST("Primavera - Activity History"."Dates - (Activity)"."Actual Finish" AS DATE)=CAST("Primavera - Activity History"."Dates - (Activity)"."Baseline Project Finish" AS DATE) THEN 1 ELSE 0 END) END) + (SUM(CASE WHEN MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek} {2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") < MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") THEN 1 ELSE 0 END))) / ((SUM(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN (CASE WHEN CAST("Primavera - Activity History"."Dates - (Activity)"."Actual Finish" AS DATE)=CAST("Primavera - Activity History"."Dates - (Activity)"."Baseline Project Finish" AS DATE) THEN 1 ELSE 0 END) END)) + (SUM(CASE WHEN MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN	Derived From Fact	P6 - Activity History

Calculated Member	Expression	Source	Subject Area / Dataset
	('@{pv_previousweek} {2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") < MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") THEN 1 ELSE 0 END)) + COUNT(CASE WHEN (CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END) NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek} {2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)) THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END) + SUM(CASE WHEN MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek} {2015-08-30}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") > MAX((CASE WHEN "Primavera - Activity History"."Calendar"."Week		

Calculated Member	Expression	Source	Subject Area / Dataset
	Name" IN ('@{pv_currentweek} {2015-09-06}') THEN "Primavera - Activity History"."Dates - (Activity)"."Finish" END) BY "Primavera - Activity History"."General - (Activity)"."Activity Id") THEN 1 ELSE 0 END) + COUNT(CASE WHEN(CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_previousweek} {2015-08-30}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END) NOT IN ((CASE WHEN "Primavera - Activity History"."Calendar"."Week Name" IN ('@{pv_currentweek} {2015-09-06}') THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)) THEN "Primavera - Activity History"."General - (Activity)"."Activity Id" END)))		

Activity Look Ahead Dashboard

Description: This dashboard provides a list of upcoming activities for the next 3 days, 1 week, 2 weeks, and for the next 30, 60, and 90 days.

Number of Canvases: 2

Default Canvas: Next 3 Days

Canvas/Dashboard Name: Activity Look Ahead Dashboard

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity

Datasets: Not applicable

Dashboard

Canvases

Figure 4-8   Activity Look Ahead Dashboard
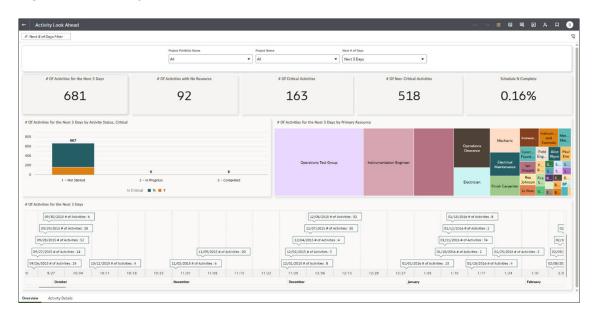
Figure 4-9   Activity Look Ahead Details Dashboard
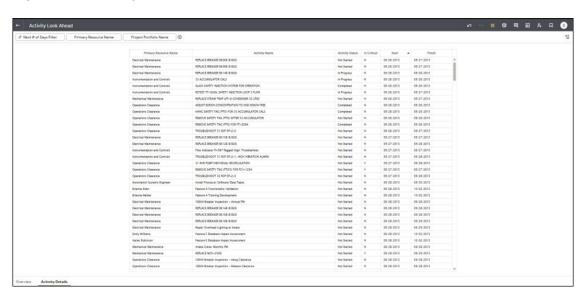
Table 23: Activity Look Ahead - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
All Canvas	Activity Status	P6 – Activity
All Canvas	Critical	P6 – Activity
All Canvas	Primary Resource	P6 – Activity
All Canvas	Start	P6 – Activity

Canvas	Dimension / Attribute	Subject Area / Dataset
Activity Details	Finish	P6 – Activity
Activity Details	Activity Name	P6 – Activity

Table 24: Activity Look Ahead – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Next N Days	# of Activities	Fact	P6 – Activity

Table 25: Activity Look Ahead – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Next N Days	Dashboard	No	Portfolio Name	P6 - Activity
All Canvas	Dashboard	No	Project Name	P6 - Activity
Next 3 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL_TSI_DAY,3,CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity
Next 7 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL_TSI_DAY,7,CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Next 14 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL _TSI_DAY,14,CAST("P rimavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity
Next 30 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL _TSI_DAY,30,CAST("P rimavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity
Next 60 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL _TSI_DAY,60,CAST("P rimavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity

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Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Next 90 Days	Dashboard	Yes	(CAST("Primavera - Activity"."Dates - (Activity)"."Start" AS DATE) BETWEEN CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE) AND TIMESTAMPADD(SQL_TSI_DAY,90,CAST("Primavera - Activity"."Dates - (Project)"."Data Date" AS DATE)))	P6 - Activity

Table 26: Activity Look Ahead – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Schedule % Complete (PRCNT)	"Primavera - Activity"."Percent Complete"."Schedule % Complete" / 100	Derived From Fact	P6 - Activity

Shutdown / Turnaround / Outage Dashboard

Description: Asset intensive organizations (utilities) can leverage this dashboard to track activities scheduled, performed, resources assigned, etc. in a very granular format during shutdown, turnaround, outage periods.

Number of Canvases: 2

Default Canvas: By Resource (Dropdown)

Canvas/Dashboard Name: Shutdown/Turnaround/Outage

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity

Datasets: Not applicable

Dashboards

Table 27: Shutdown / Turnaround / Outage - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
All Canvas	Calendar Date	P6 – Burn Down
All Canvas	Activity > Finish	P6 – Burn Down
All Canvas	Primary Resource	P6 – Burn Down

Canvas	Dimension / Attribute	Subject Area / Dataset
All Canvas	Project > Workdown Date	P6 – Burn Down

Table 28: Shutdown / Turnaround / Outage – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
All Canvas	Emergent Remaining Units Burn	Fact	P6 – Burn down

Table 29: Shutdown / Turnaround / Outage – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
All Canvas	Dashboard	No	Project Name	P6 – Burn down
All Canvas	Dashboard	No	Primary Resource	P6 – Burn down
All Canvas	Dashboard	No	Week Name	P6 – Burn down
All Canvas	Visual	Yes	CASE WHEN "Primavera - Burn Down"."Dates - (Activity)"."Finish" > "Primavera - Burn Down"."Dates - (Project)"."Workdown Date" THEN 1 ELSE 0 END = 1	P6 – Burn down

Table 30: Shutdown / Turnaround / Outage – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Original Remaining (hours)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Units"."Non-Emergent Remaining Units Burn" + CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") = 0 AND "Primavera - Burn Down"."Metrics"."New Record Count" = 0 THEN "Primavera - Burn Down"."Units"."Remaining Units" ELSE 0 END ELSE NULL END	Derived From Fact	P6 - Burn Down
Emergent Remaining (hours)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Units"."Emergent Remaining Units Burn" + CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") = 0 AND "Primavera - Burn Down"."Metrics"."New Record Count" > 0 THEN "Primavera - Burn Down"."Units"."Remaining Units" ELSE 0 END ELSE NULL END	Derived From Fact	P6 – Burn down

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Calculated Member	Expression	Source	Subject Area / Dataset
Original and Emergent Remaining (hours)	(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Units"."Non-Emergent Remaining Units Burn" + CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") = 0 AND "Primavera - Burn Down"."Metrics"."New Record Count" = 0 THEN "Primavera - Burn Down"."Units"."Remaining Units" ELSE 0 END ELSE NULL END)+ (CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Units"."Emergent Remaining Units Burn" + CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Burn Down"."Calendar"."Calendar Date", "Primavera - Burn Down"."Dates - (Project)"."Data Date") = 0 AND "Primavera - Burn Down"."Metrics"."New Record Count" > 0 THEN "Primavera - Burn Down"."Units"."Remaining Units" ELSE 0 END ELSE NULL END)	Derived From Fact	P6 – Burn down
Baseline Work Down	"Primavera - Burn Down"."Units"."Baseline Units Burn"		P6 – Burn down

Calculated Member	Expression	Source	Subject Area / Dataset
Total Man Hours	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR,"Primavera - Burn Down"."Calendar"."Calendar Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Units"."Remaining Units Burn" + "Primavera - Burn Down"."Units"."Actual Units Burn" + CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY,"Primavera - Burn Down"."Calendar"."Day Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") = 0 AND HOUR("Primavera - Burn Down"."Dates - (Project)"."Data Date") <> 0 THEN "Primavera - Burn Down"."Units"."Remaining Units" ELSE ("Primavera - Burn Down"."Units"."Actual Period Units" - "Primavera - Burn Down"."Units"."Actual Units") END ELSE NULL END		P6 – Burn down
Current Work Down	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR,"Primavera - Burn Down"."Calendar"."Calendar Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") <= 0 THEN "Primavera - Burn Down"."Units"."Remaining Units Burn" ELSE NULL END	Derived From Fact	P6 – Burn down
Original Remaining (count)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Day Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Metrics"."Non-Emergent Remaining Count" ELSE NULL END	Derived From Fact	P6 – Burn down

ORACLE

Calculated Member	Expression	Source	Subject Area / Dataset
Emergent Remaining (count)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Day Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Metrics"."Emergent Remaining Count" ELSE NULL END	Derived From Fact	P6 – Burn down
Original and Emergent Remaining (count)	(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Day Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Metrics"."Non-Emergent Remaining Count" ELSE NULL END)+(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Burn Down"."Calendar"."Day Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN "Primavera - Burn Down"."Metrics"."Emergent Remaining Count" ELSE NULL END)	Derived From Fact	P6 – Burn down
Baseline Work Down (count)	"Primavera - Burn Down"."Metrics"."Baseline Not Started Count" + "Primavera - Burn Down"."Metrics"."Baseline In Progress Count"	Derived From Fact	P6 – Burn down
Current Work Down (count)	SUM(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR,"Primavera - Burn Down"."Calendar"."Calendar Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") <= 0 THEN CASE WHEN TIMESTAMPDIFF(SQL_TSI_MINUTE,"Primavera - Burn Down"."Calendar"."Calendar Date","Primavera - Burn Down"."Dates - (Activity)"."Planned Finish") > 1440 AND "Primavera - Burn Down"."General - (Activity)"."Activity Status" <> 'Completed' THEN 1 ELSE 0 END ELSE NULL END)	Derived From Fact	P6 – Burn down

Calculated Member	Expression	Source	Subject Area / Dataset
Total # of Activities	SUM(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR,"Primavera - Burn Down"."Calendar"."Calendar Date","Primavera - Burn Down"."Dates - (Project)"."Data Date") > 0 THEN 1 ELSE NULL END)	Derived From Fact	P6 – Burn down
Original Schedule and Completed	"Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"	Derived From Fact	P6 – Burn down
Original Schedule and Not Completed	"Primavera - Burn Down"."Metrics"."Scheduled and Not Completed Count"	Derived From Fact	P6 – Burn down
Emergent and Completed	"Primavera - Burn Down"."Metrics"."Not Scheduled and Completed Count"	Derived From Fact	P6 – Burn down
Total Scheduled	"Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"+"Primavera - Burn Down"."Metrics"."Scheduled and Not Completed Count"	Derived From Fact	P6 – Burn down
Original Schedule Compliance %	CASE WHEN ("Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"/ ("Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"+"Primavera - Burn Down"."Metrics"."Scheduled and Not Completed Count")) IS NULL THEN 0 ELSE ("Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"/ ("Primavera - Burn Down"."Metrics"."Scheduled and Completed Count"+"Primavera - Burn Down"."Metrics"."Scheduled and Not Completed Count")) END	Derived From Fact	P6 – Burn down

Labor Units History Dashboard

Description: .

Number of Canvases: 1

Default Canvas: Canvas 1

Canvas/Dashboard Name: Labor Units History

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity History

Datasets: Not applicable

Dashboard

Figure 4-10   Labor Units History

Table 31: Shutdown / Turnaround / Outage - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
All Canvas	Year Name	P6 – Activity History
All Canvas	Month Name	P6 – Activity History

Table 32: Shutdown / Turnaround / Outage – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
All Canvas	Actual Labor Units	Fact	P6 – Activity History
	At Completion Labor Units	Fact	P6 – Activity History
	Planned Labor Units	Fact	P6 – Activity History
	Remaining Labor Units	Fact	P6 – Activity History

Table 33: Shutdown / Turnaround / Outage – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
All Canvas	Dashboard	No	Year Name	P6 – Activity History

CPI, SPI, and Labor Units Dashboard

Description: .

Number of Canvases: 1

Default Canvas: Canvas 1

Canvas/Dashboard Name: CPI, SPI, and Labor Units

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity

Datasets: Not applicable

Dashboard

Figure 4-11   CPI, SPI, and Labor Units

Table 34: Shutdown / Turnaround / Outage - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
All Canvas	Project Name	P6 – Activity

Table 35: Shutdown / Turnaround / Outage – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
All Canvas	Cost Performance Index (Cost)	Fact	P6 – Activity
	Schedule Performance Index (Units)	Fact	P6 – Activity
	Actual Labor Units	Fact	P6 – Activity
	Remaining Labor Units	Fact	P6 – Activity

Table 36: Shutdown / Turnaround / Outage – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
All Canvas	Dashboard	No	Performance % Complete	P6 – Activity
All Canvas	Dashboard	No	Project Name	P6 – Activity

Project Risk - Cost Overview Dashboard

Description: .

Number of Canvases: 3

Default Canvas: Project Risk Overview

Canvas/Dashboard Name: Project Risk - Cost Overview

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity, P6 - Project History

Datasets: Not applicable

Dashboards

Figure 4-12   Project Risk Overview

Figure 4-13   Project Risk Overview-Project Nano

Figure 4-14   Risk Analysis
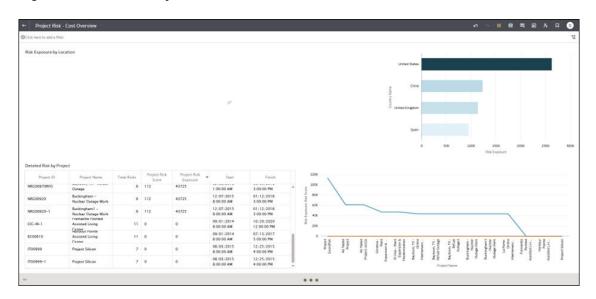
Table 37: Project Risk - Cost Overview - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Project Risk Overview Project Nano Risk Analysis	Project Name	P6 – Activity P6 - Project History
Project Risk Overview	Project Status	P6 - Project History
Project Risk Overview	Project Score	P6 - Project History
Project Risk Overview	Project Owner	P6 - Project History
Project Risk Overview	Portfolio Name	P6 - Project History
Project Risk Overview	Project risk Level	P6 - Project History

Canvas	Dimension / Attribute	Subject Area / Dataset
Project Risk Overview Risk Analysis	Project Risk Score	P6 – Activity P6 - Project History
Project Risk Overview Risk Analysis	Project Risk Exposure	P6 – Activity P6 - Project History
Project Nano	WBS Name Level 1	P6 – Activity
Project Nano	Activity Name	P6 – Activity
Project Nano	Risk Score	P6 – Activity
Project Nano	Variance-Baseline Project Duration	P6 – Activity
Risk Analysis	Country Name	P6 – Activity
Risk Analysis	Project ID	P6 – Activity
Risk Analysis	Start	P6 – Activity
Risk Analysis	Finish	P6 – Activity

Table 38: Project Risk - Cost Overview - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Project Risk Overview	Risk Score	Fact	P6 - Project History
Project Risk Overview	Risk Exposure	Fact	P6 - Project History
Project Risk Overview	Planned Total Cost	Fact	P6 - Project History
Project Risk Overview	Actual Total Cost	Fact	P6 - Project History
Project Nano	Planned Total Cost	Fact	P6 – Activity
Project Nano	Estimate At Completion (Cost)	Fact	P6 – Activity
Risk Analysis	Risk Exposure	Calculated from Fact	P6 – Activity
Risk Analysis	Total Risks	Calculated from Fact	P6 – Activity
Risk Analysis	Risk Score	Calculated from Fact	P6 – Activity

Table 39: Project Risk - Cost Overview - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Project Risk Overview	Dashboard	No	Portfolio Name	P6 - Project History
Project Nano	Visual	No	Planned Total Cost	P6 – Activity
Project Nano	Visual	No	Critical	P6 – Activity
Project Nano	Visual	Yes	Planned Total Cost	P6 – Activity
Project Nano	Visual	No	Project Name	P6 – Activity
Risk Analysis	Visual	No	Risk Exposure	P6 – Activity
Risk Analysis	Visual	No	Total Risks	P6 – Activity

Table 40: Project Risk - Cost Overview - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Risk Exposure	SUM("Primavera - Activity"."General - (Project)"."Project Risk Exposure")	Derived From Fact	P6 – Activity
Total Risks	COUNT(DISTINCT "Primavera - Activity"."Risk"."Risk Id" by "Primavera - Activity"."General - (Project)"."Project ID")	Derived From Fact	P6 – Activity
Risk Score	SUM("Primavera - Activity"."General - (Project)"."Project Risk Score")	Derived From Fact	P6 – Activity

Project Health Assessment Dashboard

Description: The Project Health Assessment dashboard provides an overall assessment of your projects, portfolios, and activities using project metrics to measure the project schedule

Default Canvas: Assessment

Canvas/Dashboard Name: Project Health – Assessment

Data Source(s): P6 - EPPM

Subject Area: P6 – Activity

Datasets: NA

Dashboards: 2

Table 41: Project Health Assessment - Dimensions

Canvas	Dimension / Attribute	Is Calculated Field	Subject Area / Dataset
Assessment	Portfolio Name	No	P6 – Activity
Project Worksheet	Project Name	No	P6 – Activity
Activity Worksheet	Activity Name	No	P6 – Activity
All Canvas	Missing Logic (%)	Yes	P6 – Activity
All Canvas	Negative Lags (%) <	Yes	P6 – Activity
All Canvas	Lags (%) <	Yes	P6 – Activity
All Canvas	Long Lags (hours) >	Yes	P6 – Activity
All Canvas	Long Lags (%) <	Yes	P6 – Activity
All Canvas	FS Relationships (%) >	Yes	P6 – Activity
All Canvas	Hard Constraints (%) <	Yes	P6 – Activity
All Canvas	Soft Constraints (%) <	Yes	P6 – Activity
All Canvas	Large Float (hours) >	Yes	P6 – Activity
All Canvas	Large Float (%) <	Yes	P6 – Activity
All Canvas	Negative Float (%) <	Yes	P6 – Activity

Canvas	Dimension / Attribute	Is Calculated Field	Subject Area / Dataset
All Canvas	Large Durations (hours) >	Yes	P6 – Activity
All Canvas	Large Durations (%) <	Yes	P6 – Activity
All Canvas	Invalid Progress (%) <	Yes	P6 – Activity
All Canvas	Resource / Cost (%) <	Yes	P6 – Activity
All Canvas	Late Activiites (%) <	Yes	P6 – Activity
All Canvas	BEI (%) >	Yes	P6 – Activity

Table 42: Project Health Assessment – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
All Canvas	Missing Logic	Calculated from Fact	P6 – Activity
All Canvas	Negative Lags	Calculated from Fact	P6 – Activity
All Canvas	Lags	Calculated from Fact	P6 – Activity
All Canvas	Long Lags	Calculated from Fact	P6 – Activity
All Canvas	FS Rel.	Calculated from Fact	P6 – Activity
All Canvas	Hard Constraints	Calculated from Fact	P6 – Activity
All Canvas	Soft Constraints	Calculated from Fact	P6 – Activity
All Canvas	Large Float	Calculated from Fact	P6 – Activity
All Canvas	Negative Float	Calculated from Fact	P6 – Activity
All Canvas	Large Durations	Calculated from Fact	P6 – Activity
All Canvas	Invalid Progress	Calculated from Fact	P6 – Activity
All Canvas	Resource / Cost	Calculated from Fact	P6 – Activity
All Canvas	Lat Activities	Calculated from Fact	P6 – Activity
All Canvas	BEI	Calculated from Fact	P6 – Activity

Table 43: Project Health Assessment – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
All Canvas	Dashboard	No	Portfolio Name	P6 – Activity
Assessment	Dashboard	No	Project Owner	P6 – Activity
Project Nano	Dashboard	No	Project Name	P6 – Activity

Table 44: Project Health Assessment – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Missing Logic	FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."Relationships - (Activity)"."Type" = 'orphan')/"Primavera - Activity"."Metrics"."# of Activities"	Derived from Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
Negative Lags	IFNULL(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING (("Primavera - Activity"."Relationships - (Activity)"."Lag" < 0.0) AND ("Primavera - Activity"."Relationships - (Activity)"."Predecessor Activity Id" IS NOT NULL) AND ("Primavera - Activity"."General - (Activity)"."Activity Status" IN ('In Progress','Not Started')))) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."General - (Activity)"."Activity Status" IN ('In Progress','Not Started'))), 0.0)	Derived from Fact	P6 - Activity
Lags	IFNULL(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING (("Primavera - Activity"."Relationships - (Activity)"."Lag" > 0.0) AND ("Primavera - Activity"."Relationships - (Activity)"."Predecessor Activity Id" IS NOT NULL) AND ("Primavera - Activity"."General - (Activity)"."Activity Status" <>'Completed'))) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."General - (Activity)"."Activity Status" IN ('In Progress','Not Started'))), 0.0)	Derived from Fact	

Calculated Member	Expression	Source	Subject Area / Dataset
Long Lags	IFNULL(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING (("Primavera - Activity"."Relationships - (Activity)"."Lag" > CAST('@{Long_Lags_hr}{352}' AS double)) AND ("Primavera - Activity"."Relationships - (Activity)"."Predecessor Activity Id" IS NOT NULL) AND ("Primavera - Activity"."General - (Activity)"."Activity Status" <>'Completed'))) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ("Primavera - Activity"."General - (Activity)"."Activity Status" IN ('In Progress','Not Started'))), 0.0)	Derived from Fact	P6 - Activity
FS Rel.	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING (("Primavera - Activity"."Relationships - (Activity)"."Predecessor Activity Id" IS NOT NULL) AND ("Primavera - Activity"."Relationships - (Activity)"."Relationship Type" = 'Finish to Start')))/"Primavera - Activity"."Metrics"."# of Activities")	Derived from Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
Hard Constraints	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."General - (Activity)"."Primary Constraint Type" IN ('Mandatory Start', 'Mandatory Finish', 'Must Start On', 'Must Finish On', 'Start No Later Than', 'Finish No Later Than') OR "Primavera - Activity"."General - (Activity)"."Secondary Constraint Type" IN ('Mandatory Start', 'Mandatory Finish', 'Must Start On', 'Must Finish On', 'Start No Later Than', 'Finish No Later Than')))/ "Primavera - Activity"."Metrics"."# of Activities"	Derived from Fact	P6 - Activity
Soft Constraints	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING IFNULL("Primavera - Activity"."General - (Activity)"."Primary Constraint Type", '') NOT IN ('Mandatory Start', 'Mandatory Finish', 'Must Start On', 'Must Finish On', 'Start No Later Than', 'Finish No Later Than') OR IFNULL("Primavera - Activity"."General - (Activity)"."Secondary Constraint Type", '') NOT IN ('Mandatory Start', 'Mandatory Finish', 'Must Start On', 'Must Finish On', 'Start No Later Than', 'Finish No Later Than')))/ "Primavera - Activity"."Metrics"."# of Activities"	Derived from Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
Large Float	(IFNULL(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."Durations - (Activity)"."Total Float" > CAST('@{Large_Float_Hr}{352}' AS double)), 0.0) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."General - (Activity)"."Activity Status" <> 'Completed'))	Derived from Fact	P6 - Activity
Negative Float	FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."Durations - (Activity)"."Total Float" < 0.0) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."General - (Activity)"."Activity Status" <> 'Completed')	Derived from Fact	P6 - Activity
Large Durations	FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."Durations - (Activity)"."Remaining Duration"> CAST('@{Large_Durations_Hr}{352}' AS double)) / "Primavera - Activity"."Metrics"."# of Activities"	Derived from Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
Invalid Progress	((CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Activity"."Dates - (Project)"."Data Date", "Primavera - Activity"."Dates - (Activity)"."Actual Start") > 0 OR TIMESTAMPDIFF(SQL_TSI_DAY, "Primavera - Activity"."Dates - (Project)"."Data Date", "Primavera - Activity"."Dates - (Activity)"."Actual Finish") > 0 THEN "Primavera - Activity"."Metrics"."# of Activities" ELSE 0.0 END)/ "Primavera - Activity"."Metrics"."# of Activities")	Derived from Fact	P6 - Activity
Resource / Cost	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING ((("Primavera - Activity"."Expense"."Expense Object Id" IS NULL) AND ("Primavera - Activity"."General - (Resource)"."Resource Id" IS NULL) AND ("Primavera - Activity"."General - (Activity)"."Activity Type" in ('Task Dependend', 'Resource Dependent'))))/"Primavera - Activity"."Metrics"."# of Activities")	Derived from Fact	P6 - Activity
Late Activities	((CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Dates - (Activity)"."Baseline Project Finish", "Primavera - Activity"."Dates - (Activity)"."Finish") > 0.0 THEN "Primavera - Activity"."Metrics"."# of Activities" ELSE 0.0 END)/ "Primavera - Activity"."Metrics"."# of Activities")	Derived from Fact	P6 - Activity

Calculated Member	Expression	Source	Subject Area / Dataset
BEI	(FILTER("Primavera - Activity"."Metrics"."# of Activities" USING TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Dates - (Activity)"."Baseline Project Finish", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 AND TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Dates - (Activity)"."Baseline Project Finish", "Primavera - Activity"."Dates - (Activity)"."Actual Finish") <= 0 AND ("Primavera - Activity"."General - (Activity)"."Activity Status" = 'Completed')) / FILTER("Primavera - Activity"."Metrics"."# of Activities" USING "Primavera - Activity"."General - (Activity)"."Activity Status" = 'Completed'))	Derived from Fact	P6 - Activity

5

Sample Visualizations Using Unifier Data

This section describes the sample data visualizations that are provided with Construction and Engineering Analytics using Unifier data for Executives, and PMOs.

Cash Flow Summary Dashboard

Description: The Cash Flow Summary dashboard provides users to see how the initial baseline compares to current baseline, actuals, and forecasts on a year to year basis.

Number of Canvases: 2

Default Canvas: Currency Type - Base

Canvas/Dashboard Name: Cash Flow Summary

Data Source(s): Unifier

Subject Area: not applicable

Datasets: Cash Flow Dataset – Base, Cash Flow Dataset – Project

Canvases

Figure 5-1   Cash Flow Summary - Currency Type - Base

Figure 5-2   Cash Flow Summary - Currency Type - Project

Table 45: Cash Flow - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Currency Type - Base	Month Name	Cash Flow Dataset – Base
Currency Type - Base	Year Name	Cash Flow Dataset – Base
Currency Type – Project	Month Name	Cash Flow Dataset – Project
Currency Type – Project	Year Name	Cash Flow Dataset – Project

Table 46: Cash Flow - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Currency Type - Base	Initial Baseline (cum.)	Calculated from Fact	Cash Flow Dataset – Base
Currency Type - Base	Current Baseline (cum.)	Calculated from Fact	Cash Flow Dataset – Base
Currency Type - Base	Actuals (cum.)	Calculated from Fact	Cash Flow Dataset – Base
Currency Type - Base	Forecast (cum.)	Calculated from Fact	Cash Flow Dataset – Base
Currency Type - Base	Initial Baseline	Fact	Cash Flow Dataset – Base
Currency Type - Base	Current Baseline	Fact	Cash Flow Dataset – Base
Currency Type - Base	Actuals	Fact	Cash Flow Dataset – Base
Currency Type - Base	Forecast	Fact	Cash Flow Dataset – Base
Currency Type - Base	Initial Baseline [cum.]	Calculated from Fact	Cash Flow Dataset – Project
Currency Type - Base	Current Baseline [cum.]	Calculated from Fact	Cash Flow Dataset – Project
Currency Type - Base	Actuals [cum.]	Calculated from Fact	Cash Flow Dataset – Project
Currency Type - Base	Forecast [cum.]	Calculated from Fact	Cash Flow Dataset – Project
Currency Type - Base	Initial Baseline	Fact	Cash Flow Dataset – Project
Currency Type - Base	Current Baseline	Fact	Cash Flow Dataset – Project
Currency Type - Base	Actuals	Fact	Cash Flow Dataset – Project
Currency Type - Base	Forecast	Fact	Cash Flow Dataset – Project

Table 47: Cash Flow - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset (s)
Initial Baseline (cum.)	RSUM(XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Initial Baseline")	Derived From Fact	Cash Flow Dataset – Base
Current Baseline (cum.)	RSUM(XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Current Baseline")	Derived From Fact	Cash Flow Dataset – Base
Actuals (cum.)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH,XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Calendar Date",MAX(MAX(CASE WHEN XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Actuals" > 0 THEN XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Calendar Date" ELSE NULL END BY XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Datasource Id") BY 1)) >= 0 THEN RSUM(XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Actuals") ELSE NULL END	Derived From Fact	Cash Flow Dataset – Base

Calculated Member	Expression	Source	Subject Area / Dataset (s)
Forecast (cum.)	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH,XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Calendar Date",MAX(MAX(CASE WHEN XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Actuals" > 0 THEN XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Calendar Date" ELSE NULL END BY 1) BY 1)) < 1 THEN RSUM(XSA('demouser'.'Cash Flow Dataset - Base')."Columns"."Forecast") ELSE NULL END	Derived From Fact	Cash Flow Dataset – Base
Initial Baseline [cum.]	RSUM(XSA('demouser'.'Cash Flow Dataset')."Columns"."Initial Baseline")	Derived From Fact	Cash Flow Dataset – Base
Current Baseline [cum.]	RSUM(XSA('demouser'.'Cash Flow Dataset')."Columns"."Current Baseline")	Derived From Fact	Cash Flow Dataset – Base
Actuals [cum.]	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH,XSA('demouser'.'Cash Flow Dataset')."Columns"."Calendar Date",MAX(MAX(CASE WHEN XSA('demouser'.'Cash Flow Dataset')."Columns"."Actuals" > 0 THEN XSA('demouser'.'Cash Flow Dataset')."Columns"."Calendar Date" ELSE NULL END BY XSA('demouser'.'Cash Flow Dataset')."Columns"."Datasource Id") BY 1)) >= 0 THEN RSUM(XSA('demouser'.'Cash Flow Dataset')."Columns"."Actuals") ELSE NULL END	Derived From Fact	Cash Flow Dataset – Base

Calculated Member	Expression	Source	Subject Area / Dataset (s)
Forecast [cum.]	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH,XSA('demouser'.'Cash Flow Dataset')."Columns"."Calendar Date",MAX(MAX(CASE WHEN XSA('demouser'.'Cash Flow Dataset')."Columns"."Actuals" > 0 THEN XSA('demouser'.'Cash Flow Dataset')."Columns"."Calendar Date" ELSE NULL END BY 1) BY 1)) < 1 THEN RSUM(XSA('demouser'.'Cash Flow Dataset')."Columns"."Forecast") ELSE NULL END	Derived From Fact	Cash Flow Dataset – Base

Cost Analytics Overview Dashboard

Description: The Cost Overview dashboard enables Executives and PMOs to track cost forecasts for individual projects on a quarterly basis. They can compare costs between baseline, actuals and forecasts by project name and owner. They can then make informed decisions about which projects or owners have the highest cost variance.

Number of Canvases: 1

Default Canvas: Forecasted Cost Overview

Canvas/Dashboard Name: Cost Analytics

Data Source(s): Unifier

Subject Area: Unifier – Cash Flow

Datasets: Not Applicable

Figure 5-3   Cost Analytics
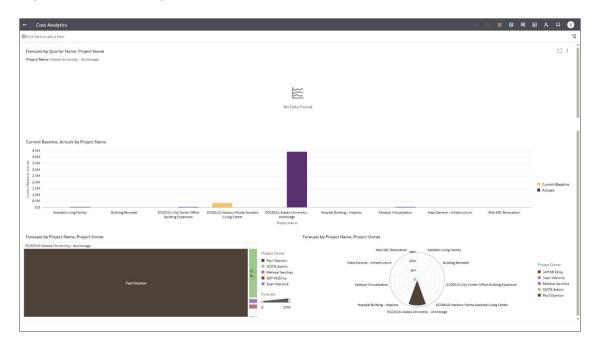
Table 48: Cost Analytics - Dimensions

Canvas	Dimension	Dimension / Attribute	Subject Area / Dataset
Canvas 1	Calendar	Quarter Name	Unifier – Cash Flow
Canvas 1	Project	Project Name	Unifier – Cash Flow
Canvas 1	Project	Project Owner	Unifier – Cash Flow

Table 49: Cost Analytics - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Canvas 1	Current Baseline	Fact	Unifier – Cash Flow
Canvas 1	Actuals	Fact	Unifier – Cash Flow
Canvas 1	Forecast	Fact	Unifier – Cash Flow

Table 50: Cost Analytics - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Canvas 1	Visualization	No	Project Name	Unifier – Cash Flow

Submittals Overview Dashboard

Number of Canvases: 1

Default Canvas: Submittals Overview

Canvas/Dashboard Name: Submittals Overview

Data Source(s): Unifier

Subject Area: Unifier – Cash Flow

Datasets: Not Applicable

Dashboard

Figure 5-4   Submittals Overview
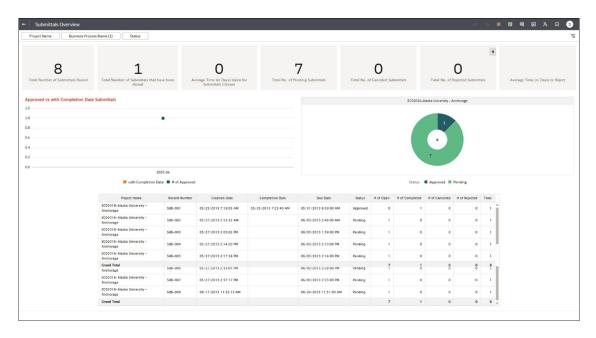
Table 51: Submittals Overview – Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Submittals Overview	Calendar	Project id	Unifier – Business Process History
Submittals Overview	Project	Project Name	Unifier – Business Process History
Submittals Overview	Business Process – General (BP)	Record Number	Unifier – Business Process History
Submittals Overview	Business Process – General (BP)	Status	Unifier – Business Process History
Submittals Overview	Business Process – General (BP)	Creation Date	Unifier – Business Process History
Submittals Overview	Business Process – General (BP)	Completion Date	Unifier – Business Process History
Submittals Overview	Business Process – General (BP)	Due Date	Unifier – Business Process History

Table 52: Submittals Overview – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Submittals Overview	# of BP Records	Fact	Unifier – Business Process History
Submittals Overview	# of Open	Calculated from Fact	Unifier – Business Process History
Submittals Overview	# of Completed	Calculated from Fact	Unifier – Business Process History
Submittals Overview	# of Cancelled	Calculated from Fact	Unifier – Business Process History
Submittals Overview	# of Rejected	Calculated from Fact	Unifier – Business Process History
Submittals Overview	# of Approved	Calculated from Fact	Unifier – Business Process History
Submittals Overview	with Completion Date	Calculated from Fact	Unifier – Business Process History
Submittals Overview	Average Time (in Days) taken for Submittals Closure	Calculated from Fact	Unifier – Business Process History
Submittals Overview	Average Time (in Days) to Reject	Calculated from Fact	Unifier – Business Process History

Table 53: Submittals Overview – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Submittals Overview	Dashboard	No	Project Name	Unifier – Business Process History
Submittals Overview	Dashboard	No	Business Process Name	Unifier – Business Process History
Submittals Overview	Dashboard & Visualization	No	Status	Unifier – Business Process History
Submittals Overview	Visualization	Yes	Creation Date	Unifier – Business Process History
Submittals Overview	Visualization	Yes	Completion Date	Unifier – Business Process History

Table 54: Submittals Overview – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset (s)
# of Open	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" Using "Primavera - Business Process History"."General - (BP)"."Status" IN ('Approved','Pending') AND "Primavera - Business Process History"."Dates - (BP)"."Completion Date" IS NULL)	Derived From Fact	Unifier – Business Process History
# of Completed	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" USING NOT("Primavera - Business Process History"."Dates - (BP)"."Completion Date" IS NULL) AND "Primavera - Business Process History"."General - (BP)"."Status" = 'Approved')	Derived From Fact	Unifier – Business Process History
# of Cancelled	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" Using "Primavera - Business Process History"."General - (BP)"."Status" IN ('Cancelled','Canceled'))	Derived From Fact	Unifier – Business Process History
# of Rejected	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" Using "Primavera - Business Process History"."General - (BP)"."Status" = 'Rejected')	Derived From Fact	Unifier – Business Process History
# of Approved	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" USING "Primavera - Business Process History"."General - (BP)"."Status" = 'Approved')	Derived From Fact	Unifier – Business Process History

Calculated Member	Expression	Source	Subject Area / Dataset (s)
with Completion Date	FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" USING NOT("Primavera - Business Process History"."Dates - (BP)"."Completion Date" IS NULL))	Derived From Fact	Unifier – Business Process History
Average Time (in Days) taken for Submittals Closure	SUM(CASE WHEN "Primavera - Business Process History"."General - (BP)"."Status" = 'Approved' THEN TIMESTAMPDIFF(SQL_TSI_ DAY, "Primavera - Business Process History"."Dates - (BP)"."Creation Date", "Primavera - Business Process History"."Dates - (BP)"."Completion Date") ELSE 0 END) / (FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" USING NOT("Primavera - Business Process History"."Dates - (BP)"."Completion Date" IS NULL) AND "Primavera - Business Process History"."General - (BP)"."Status" = 'Approved'))	Derived From Fact	Unifier – Business Process History
Average Time (in Days) to Reject	SUM(CASE WHEN "Primavera - Business Process History"."General - (BP)"."Status" = 'Rejected' THEN TIMESTAMPDIFF(SQL_TSI_ DAY, "Primavera - Business Process History"."Dates - (BP)"."Creation Date", "Primavera - Business Process History"."Dates - (BP)"."Completion Date") ELSE 0 END) / (FILTER("Primavera - Business Process History"."Metrics"."# of BP Records" Using "Primavera - Business Process History"."General - (BP)"."Status" = 'Rejected'))	Derived From Fact	Unifier – Business Process History

Tracking Maintenance Status Dashboard

Description: Tracking open and closed work orders by week over time.

Number of Canvases: 4

Default Canvas: Issues

Canvas/Dashboard Name: Tracking Maintenance Status

Data Source(s): Unifier

Subject Area: N/A

Datasets: Created and Completed BP Overtime Dataset

Dashboard(s)

Table 55: Tracking Maintenance Status – Dimensions

Canvas	Dimension Name	Dimension / Attribute	Subject Area / Dataset
Issues by Building		Week Name	Created and Completed BP Overtime Dataset
All Canvases		Status	Created and Completed BP Overtime Dataset
By Building Table		Project Name	Created and Completed BP Overtime Dataset
Table Details		Project Name (Root Level)	Created and Completed BP Overtime Dataset
Table Details		Project Hierarchy Name Level 1	Created and Completed BP Overtime Dataset
Details		Record Number	Created and Completed BP Overtime Dataset
Details		Title	Created and Completed BP Overtime Dataset

Table 56: Tracking Maintenance Status – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Issues By Building Table	# of BP Records	Fact	Created and Completed BP Overtime Dataset
Issues By Building	# of Created BP Records	Calculated from Fact	Created and Completed BP Overtime Dataset
Issues By Building	# of Completed BP Records	Calculated from Fact	Created and Completed BP Overtime Dataset

Table 57: Tracking Maintenance Status – Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
All Canvases	Dashboard	No	Project Portfolio Name	Created and Completed BP Overtime Dataset
All Canvases	Dashboard	No	Project Name	Created and Completed BP Overtime Dataset
All Canvases	Visualization	No	Status	Created and Completed BP Overtime Dataset
All Canvases	Dashboard & Visualization	No	Business Process Name	Created and Completed BP Overtime Dataset
Issues By Building	Dashboard & Visualization	No	Open Cases Tag	Created and Completed BP Overtime Dataset

Table 58: Tracking Maintenance Status – Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset (s)
# of Created BP Records	CASE WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Creation Date" >= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Start Date" AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Creation Date" <= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week End Date" THEN 1 ELSE 0 END	Derived From Fact	Created and Completed BP Overtime Dataset

Calculated Member	Expression	Source	Subject Area / Dataset (s)
# of Completed BP Records	CASE WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Completion Date" >= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Start Date" AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Completion Date" <= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week End Date" THEN 1 ELSE 0 END	Derived From Fact	Created and Completed BP Overtime Dataset

Project Status Dashboard

Description: .

Number of Canvases: 1

Default Canvas: Project Status

Canvas/Dashboard Name: Project Status

Data Source(s): Unifier

Subject Area: Unifier - Cost Sheet

Datasets: Not applicable
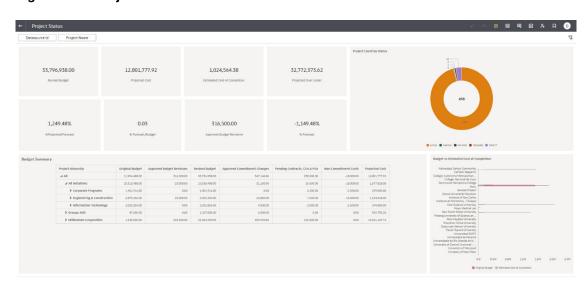
Dashboard

Figure 5-5   Project Status Dashboard

Table 59: Project Status - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Project Status	Project Status	Unifier - Cost Sheet
Project Status	Project Hierarchy	Unifier - Cost Sheet
Project Status	Project Name	Unifier - Cost Sheet

Table 60: Project Status – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Project Status	Revised Budget	Fact	Unifier - Cost Sheet
Project Status	Projected Cost	Calculated from Fact	Unifier - Cost Sheet
Project Status	Estimated Cost At Completion	Calculated from Fact	Unifier - Cost Sheet
Project Status	Projected Over Under	Calculated from Fact	Unifier - Cost Sheet
Project Status	% Projected / Forecast	Calculated from Fact	Unifier - Cost Sheet
Project Status	% Projected / Budget	Calculated from Fact	Unifier - Cost Sheet
Project Status	Approved Budget Revisions	Fact	Unifier - Cost Sheet
Project Status	% Forecast	Calculated from Fact	Unifier - Cost Sheet
Project Status	Project Count	Fact	Unifier - Cost Sheet
Project Status	Original Budget	Fact	Unifier - Cost Sheet
Project Status	Approved Commitment Changes	Calculated from Fact	Unifier - Cost Sheet
Project Status	Pending Contracts, cos & POs	Calculated from Fact	Unifier - Cost Sheet
Project Status	Non Commitment Cost	Calculated from Fact	Unifier - Cost Sheet
Project Status	Total Costs Incurred	Calculated from Fact	Unifier - Cost Sheet
Project Status	Estimate to Complete (ETC)	Calculated from Fact	Unifier - Cost Sheet
Project Status	% Projected Costs	Calculated from Fact	Unifier - Cost Sheet

Table 61: Project Status - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Project Status	Dashboard	No	Datasource ID	Unifier - Cost Sheet
Project Status	Dashboard	No	Project Name	Unifier - Cost Sheet
Project Status	Visualization	Yes	"Primavera - Cost Sheet"."General - (Project)"."Project Status" is not null	Unifier - Cost Sheet

Table 62: Project Status - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Projected Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet
Estimated Cost At Completion	"Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet
Projected Over Under	"Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13")	Derived From Fact	Unifier - Cost Sheet
% Projected / Forecast	(("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6") / ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"))	Derived From Fact	Unifier - Cost Sheet
% Forecast / Budget	("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13") / "Primavera - Cost Sheet"."Costs"."Revised Budget"	Derived From Fact	Unifier - Cost Sheet

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Calculated Member	Expression	Source	Subject Area / Dataset
% Forecast	1-(("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6") / ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"))	Derived From Fact	Unifier - Cost Sheet
Project Count	COUNT(DISTINCT "Primavera - Cost Sheet"."General - (Project)"."Project Object Id")	Derived From Fact	Unifier - Cost Sheet
Pending Contracts, Cos & POs	"Primavera - Cost Sheet"."Costs"."Pending PO Amendments"+"Primavera - Cost Sheet"."Costs"."Pending Change Orders"	Derived From Fact	Unifier - Cost Sheet
Non Commitment Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet
Total Costs Incurred	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"	Derived From Fact	Unifier - Cost Sheet
% Projected Costs	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"/("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6")* 100	Derived From Fact	Unifier - Cost Sheet
Estimate to Complete (ETC)	"Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet

Root Cause Analysis Dashboard

Description: .

Number of Canvases: 1

Default Canvas: Root Cause Analysis

Canvas/Dashboard Name: Root Cause Analysis

Data Source(s): Unifier

Subject Area: Unifier - Cost Sheet

Datasets: Not applicable

Dashboard

Figure 5-6   Root Cause Analysis Dashboard
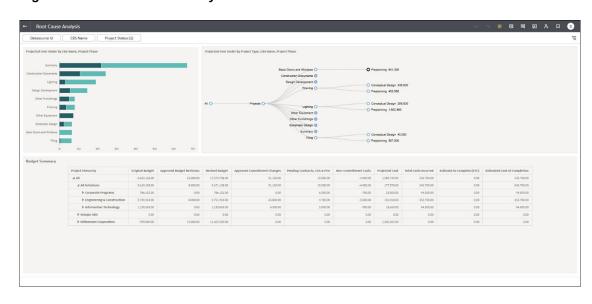
Table 63: Root Cause Analysis - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Root Cause Analysis	CBS Name	Unifier - Cost Sheet
Root Cause Analysis	Project Phase	Unifier - Cost Sheet
Root Cause Analysis	Project Name	Unifier - Cost Sheet
Root Cause Analysis	Project Type	Unifier - Cost Sheet
Root Cause Analysis	Project Hierarchy	Unifier - Cost Sheet

Table 64: Root Cause Analysis – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Root Cause Analysis	Revised Budget	Fact	Unifier - Cost Sheet
Root Cause Analysis	Projected Cost	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Estimated Cost At Completion	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Projected Over Under	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	% Projected / Forecast	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	% Projected / Budget	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Approved Budget Revisions	Fact	Unifier - Cost Sheet

ORACLE

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Root Cause Analysis	% Forecast	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Project Count	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Original Budget	Fact	Unifier - Cost Sheet
Root Cause Analysis	Approved Commitment Changes	Fact	Unifier - Cost Sheet
Root Cause Analysis	Pending Contracts, COs & POs	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Non Commitment Cost	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Total Costs incurred	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	Estimate to Complete (ETC)	Calculated from Fact	Unifier - Cost Sheet
Root Cause Analysis	% Projected Costs	Calculated from Fact	Unifier - Cost Sheet

Table 65: Root Cause Analysis - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Root Cause Analysis	Dashboard	No	Datasource ID	Unifier - Cost Sheet
Root Cause Analysis	Dashboard	No	CBS Name	Unifier - Cost Sheet
Root Cause Analysis	Dashboard	No	Project Status	Unifier - Cost Sheet
Root Cause Analysis	Visualization	Yes	("Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."Revised Commitments")) is not null and ("Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."Revised Commitments")) <> 0	Unifier - Cost Sheet

Table 66: Root Cause Analysis - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Projected Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet

ORACLE

Calculated Member	Expression	Source	Subject Area / Dataset
Estimated Cost At Completion	"Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet
Projected Over Under	"Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13")	Derived From Fact	Unifier - Cost Sheet
% Projected / Forecast	(("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6") / ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"))	Derived From Fact	Unifier - Cost Sheet
% Forecast / Budget	("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13") / "Primavera - Cost Sheet"."Costs"."Revised Budget"	Derived From Fact	Unifier - Cost Sheet
% Forecast	1-(("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6") / ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"))	Derived From Fact	Unifier - Cost Sheet
Project Count	COUNT(DISTINCT "Primavera - Cost Sheet"."General - (Project)"."Project Object Id")	Derived From Fact	Unifier - Cost Sheet

Calculated Member	Expression	Source	Subject Area / Dataset
Pending Contracts, Cos & POs	"Primavera - Cost Sheet"."Costs"."Pending PO Amendments"+"Primavera - Cost Sheet"."Costs"."Pending Change Orders"	Derived From Fact	Unifier - Cost Sheet
Non Commitment Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet
Total Costs Incurred	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"	Derived From Fact	Unifier - Cost Sheet
% Projected Costs	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"/("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6")* 100	Derived From Fact	Unifier - Cost Sheet
Estimate to Complete (ETC)	"Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet

Budget Insights Dashboard

Description: .

Number of Canvases: 1

Default Canvas: Budget Insights

Canvas/Dashboard Name: Budget Insights

Data Source(s): Unifier

Subject Area: Unifier - Cost Sheet

Datasets: Not applicable

Dashboard

Figure 5-7   Budget Insights Dashboard

Table 67: Budget Insights - Dimensions

Canvas	Dimension / Attribute	Subject Area / Dataset
Budget Insights	Project Name	Unifier - Cost Sheet

Table 68: Budget Insights – Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Budget Insights	Revised Budget	Fact	Unifier - Cost Sheet
Budget Insights	Projected Cost		Unifier - Cost Sheet
Budget Insights	Estimated Cost At Completion		Unifier - Cost Sheet
Budget Insights	Projected Over Under		Unifier - Cost Sheet
Budget Insights	Approved Budget Revisions		Unifier - Cost Sheet
Budget Insights	Project Count		Unifier - Cost Sheet
Budget Insights	Original Budget		Unifier - Cost Sheet
Budget Insights	Approved Commitment Changes		Unifier - Cost Sheet
Budget Insights	Pending Contracts, Cos & POs		Unifier - Cost Sheet
Budget Insights	Non Commitment Cost		Unifier - Cost Sheet
Budget Insights	Total Costs Incurred		Unifier - Cost Sheet
Budget Insights	Estimate to Complete(ETC)		Unifier - Cost Sheet
Budget Insights	% Projected Costs		Unifier - Cost Sheet

Table 69: Budget Insights - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Budget Insights	Dashboard	No	CBS Name	Unifier - Cost Sheet

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute / Measure	Subject Area / Dataset
Budget Insights	Visualization	Yes	"Primavera - Cost Sheet"."Costs"."User Defined Column 7" > 0 And ("Primavera - Cost Sheet"."Costs"."User Defined Column 7"/ ("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6")* 100) is not null	Unifier - Cost Sheet

Table 70: Budget Insights - Calculated Members

Calculated Member	Expression	Source	Subject Area / Dataset
Projected Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet
Estimated Cost At Completion	"Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet
Projected Over Under	"Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13")	Derived From Fact	Unifier - Cost Sheet
Project Count	COUNT(DISTINCT "Primavera - Cost Sheet"."General - (Project)"."Project Object Id")	Derived From Fact	Unifier - Cost Sheet

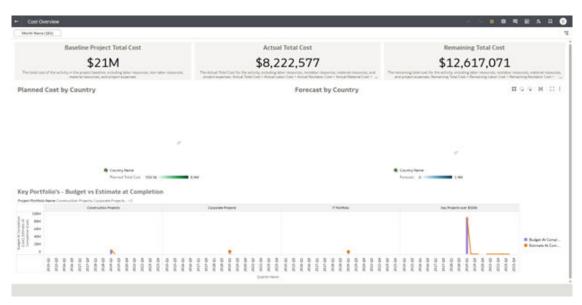| Calculated Member	Expression	Source	Subject Area / Dataset
Pending Contracts, Cos & POs	"Primavera - Cost Sheet"."Costs"."Pending PO Amendments"+"Primavera - Cost Sheet"."Costs"."Pending Change Orders"	Derived From Fact	Unifier - Cost Sheet
Non Commitment Cost	"Primavera - Cost Sheet"."Costs"."User Defined Column 6"	Derived From Fact	Unifier - Cost Sheet
Total Costs Incurred	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"	Derived From Fact	Unifier - Cost Sheet
% Projected Costs	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"/("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6")* 100	Derived From Fact	Unifier - Cost Sheet
Estimate to Complete (ETC)	"Primavera - Cost Sheet"."Costs"."User Defined Column 13"	Derived From Fact	Unifier - Cost Sheet

6

Sample Visualizations Using Blended Data

This section describes the sample data visualizations that are provided with Construction and Engineering Analytics using data blended from on or more source applications.

Cost Overview Project

Description: This project gives an Executive/PMO insights on how the organization is tracking its budgeted cost and where most of the cost/work is going to happen. This helps them focus on the key portfolios and gather how they are performing to cost. In case there are outliers, the users can take preemptive corrective actions.

Figure 6-1 Cost Overview Default Canvas

Number of Canvases: 1

Default Canvas: Cost KPI's Global Outlook

Canvas/Dashboard Name: Cost KPI's Global Outlook

Data Source(s): P6 EPPM, Unifier

Subject Areas: P6-Project History, P6-Activity, P6-Resource Utilization, and Unifier-Cash Flow

Table 83: Cost KPI's Global Outlook - Dimensions

Canvas	Dimension / Attribute	Subject Canvas Area / Dataset
Cost KPI's Global Outlook	Country Name	P6 - Project History

Canvas	Dimension / Attribute	Subject Canvas Area / Dataset
Cost KPI's Global Outlook	Quarter Name	P6 - Activity
Cost KPI's Global Outlook	Portfolio Name	P6 - Activity

Table 84: Cost KPI's Global Outlook - Measures

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Cost KPI's Global Outlook	Baseline Project Total Cost	Fact	P6 - Project History
Cost KPI's Global Outlook	Actual Total Cost	Fact	P6 - Project History
Cost KPI's Global Outlook	Remaining Total Cost	Fact	P6 - Project History
Cost KPI's Global Outlook	Planned Total Cost	Fact	P6 - Project History
Cost KPI's Global Outlook	Forecast	Fact	Unifier – Cash Flow
Cost KPI's Global Outlook	Budget At Completion Cost	Fact	P6 - Activity
Cost KPI's Global Outlook	Estimate At Completion Cost	Fact	P6 - Activity

Table 85: Cost KPI's Global Outlook - Filters

Canvas	Filter Type	Is Expression Filter	Dimension / Attribute	Subject Area / Dataset
Cost KPI's Global Outlook	Dashboard	No	Month Name	P6 – Resource Utilization
Cost KPI's Global Outlook	Visualization	No	Portfolio Name	P6 - Activity

Table 86: Cost KPI's Global Outlook - Data Actions

Data Action Name	Action Type	Anchor To	Target	Canvas Link	Pass Values	Multiselection
Test DA	Analytics Link	None	CEO DB Project	Canvas 1	All	On

Project Performance Measurement

Number of Canvases: 6

Default Canvas: Overview

Canvas/Dashboard Name: Project Performance Measurement

Data Sources: P6 EPPM, Unifier

Subject Areas: P6-Activity, Unifier- Cost Sheet, Unifier – Cash Flow, P6 – Project History, Unifier – Business Process

Datasets: Not applicable.

Figure 6-2   Project Performance Measurement - Overview Dashboard

Figure 6-3   Project Performance Measurement - Cost
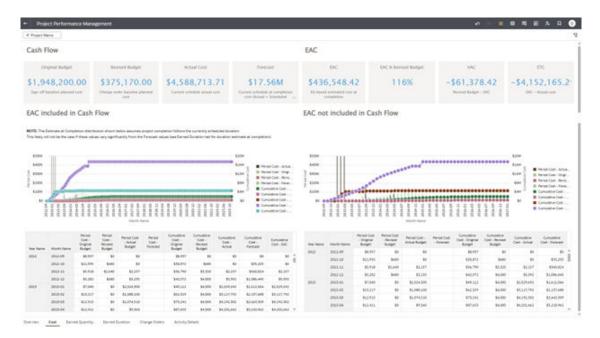
Figure 6-4   Project Performance Measurement - Earned Quantity
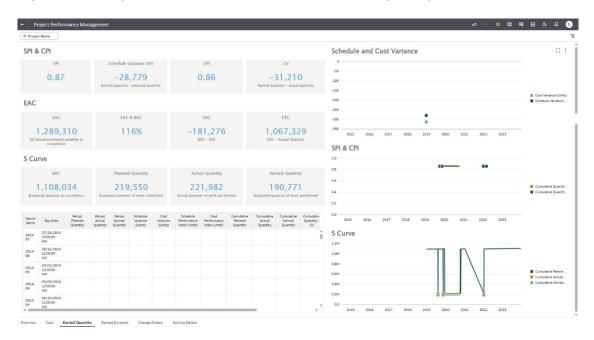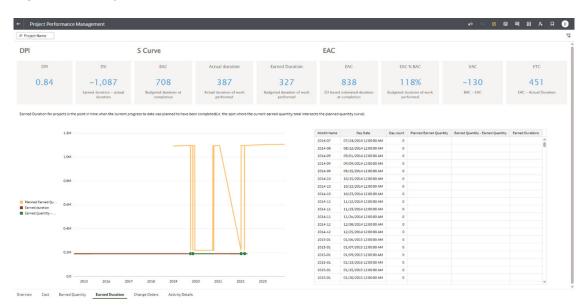
Figure 6-5   Project Performance Measurement - Earned Duration
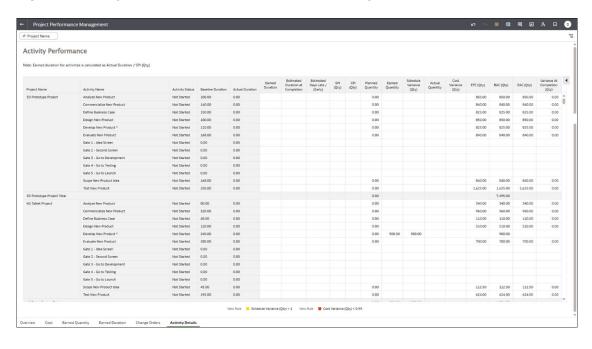
Figure 6-6   Project Performance Measurement - Changed Orders

Figure 6-7   Project Performance Measurement - Activity Details

The following components have been used to create this data visualization.

Table 87: Project Performance Measurement - Dimensions Table

Canvas	Dimension / Attribute	Subject Area / Dataset
Overview	Status	Unifier - Business Process
Overview	Business Process Name	Unifier - Business Process

Canvas	Dimension / Attribute	Subject Area / Dataset
Overview	Project Name	P6 - Activity
Overview	Link to Project	P6 - Activity

Table 88: Project Performance Measurement - Measures Table

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Cost	Initial Baseline	Fact	Unifier - Cash Flow
Cost	Current Baseline	Fact	Unifier - Cash Flow
Cost	Actuals	Fact	Unifier - Cash Flow
Cost	Forecast	Fact	Unifier - Cash Flow
Cost	Period Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Forecast	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - EAC	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Cumulative Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Forecast Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - EAC	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Period Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Forecast Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - EAC	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Cumulative Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Forecast Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - EAC	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Period Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Forecast	Calculated From Fact	Unifier - Cash Flow

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Cost	Cumulative Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Actual	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Forecast	Calculated From Fact	Unifier - Cash Flow
Cost	Cost - Estimate at Completion (EAC)	Calculated From Fact	Unifier - Cash Flow
Cost	Cost - Estimate to Completion (ETC)	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Cost - EAC % Revised Budget	Calculated From Fact	Unifier - Cash Flow / P6 - Activity
Cost	Cost - Variance at Completion (VAC)	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Actual Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Period Cost - Forecast	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Original Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Revised Budget	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Actual	Calculated From Fact	Unifier - Cash Flow
Cost	Cumulative Cost - Forecast	Calculated From Fact	Unifier - Cash Flow
Change Orders	Change Order count	Calculated From Fact	Unifier - Business Process
Change Orders	Forecast	Fact	Unifier - Cash Flow
Change Orders	Revised Budget	Fact	Unifier - Cash Flow
Change Orders	Original Budget	Fact	Unifier - Cash Flow
Change Orders	Revised Budget	Fact	Unifier - Cash Flow
Change Orders	Forecast	Fact	Unifier - Cash Flow
Change Orders	Amount	Fact	Unifier - Business Process
Change Orders	Pending change order	Calculated From Fact	Unifier - Business Process
Change Orders	Amount	Fact	Unifier - Business Process
Activity Details	Earned Duration	Calculated From Fact	P6 - Activity
Activity Details	Estimated Duration at Completion	Calculated From Fact	P6 - Activity
Activity Details	Estimated Days Late / (Early)	Calculated From Fact	P6 - Activity
Activity Details	SPI (Qty)	Calculated From Fact	P6 - Activity
Activity Details	CPI (Qty)	Calculated From Fact	P6 - Activity
Activity Details	Planned Quantity	Calculated From Fact	P6 - Activity
Activity Details	Earned Quantity	Calculated From Fact	P6 - Activity
Activity Details	Schedule Variance (Qty)	Calculated From Fact	P6 - Activity
Activity Details	Actual Quantity	Calculated From Fact	P6 - Activity
Activity Details	Cost Variance (Qty)	Calculated From Fact	P6 - Activity
Activity Details	ETC (Qty)	Calculated From Fact	P6 - Activity
Activity Details	BAC (Qty)	Calculated From Fact	P6 - Activity
Activity Details	EAC (Qty)	Calculated From Fact	P6 - Activity

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Activity Details	Variance At Completion (Qty)	Calculated From Fact	P6 - Activity
Earned Duration	Planned Earned Quantity	Calculated From Fact	P6 - Activity
Earned Duration	Earned quantity	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration.	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Earned duration	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Actual Duration	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Budget at Completion (BAC)	Calculated From Fact	P6 - Activity
Earned Duration	Day Count	Calculated From Fact	P6 - Activity
Earned Duration	Planned Earned Quantity	Calculated From Fact	P6 - Activity
Earned Duration	Earned quantity	Calculated From Fact	P6 - Activity
Earned Duration	Earned duration	Calculated From Fact	P6 - Activity
Earned Duration	Duration Performance Index (DPI)	Calculated From Fact	P6 - Activity
Earned Duration	Duration Variance (DV)	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Estimate at Completion (EAC)	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Variance at Completion (VAC)	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - Estimate to Complete (ETC)	Calculated From Fact	P6 - Activity
Earned Duration	Earned Duration - EAC % BAC	Calculated From Fact	P6 - Activity
Overview	Revised Budget	Fact	Unifier - Cost Sheet
Overview	Actual Cost	Calculated From Fact	Unifier - Cost Sheet
Overview	Forecast	Fact	Unifier - Cost Sheet
Overview	Original Budget	Fact	Unifier - Cost Sheet
Overview	Revised Budget	Fact	Unifier - Cost Sheet
Overview	Actual Cost	Calculated From Fact	Unifier - Cost Sheet
Overview	Forecast	Fact	Unifier - Cost Sheet
Overview	Cost EAC	Calculated From Fact	Unifier - Cost Sheet
Overview	Cost EAC	Calculated From Fact	Unifier - Cost Sheet
Overview	EAC % Revised Budget	Calculated From Fact	P6 - Activity / P6 - Activity
Overview	Forecast % Revised Budget	Calculated From Fact	Unifier - Cost Sheet
Overview	Planned Quantity	Calculated From Fact	P6 - Activity
Overview	Actual Quantity	Calculated From Fact	P6 - Activity
Overview	Earned Quantity	Calculated From Fact	P6 - Activity
Overview	Earned Quantity - Estimate at completion (EAC)	Calculated From Fact	P6 - Activity
Overview	Cost Performance Index (Units)	Fact	P6 - Activity
Overview	Earned Quantity - EAC % BAC	Calculated From Fact	P6 - Activity
Overview	Earned Duration - Budget at Completion (BAC)	Calculated From Fact	P6 - Activity

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Overview	Earned Duration - Actual Duration	Calculated From Fact	P6 - Activity
Overview	Earned Duration - Earned duration	Calculated From Fact	P6 - Activity
Overview	Duration Performance Index (DPI)	Calculated From Fact	P6 - Activity
Overview	Earned Duration - EAC % BAC	Calculated From Fact	P6 - Activity
Overview	Earned Duration - Estimate at Completion (EAC)	Calculated From Fact	P6 - Activity
Overview	Original Budget	Fact	Unifier - Cost Sheet
Overview	Amount	Fact	Unifier - Business Process
Overview	Pending change order	Calculated From Fact	Unifier - Business Process
Overview	Change Order count	Calculated From Fact	Unifier - Business Process
Overview	Planned Quantity	Calculated From Fact	P6 - Activity
Overview	Actual Quantity	Calculated From Fact	P6 - Activity
Overview	Earned Quantity	Calculated From Fact	P6 - Activity
Overview	Earned Quantity - Estimate at completion (EAC)	Calculated From Fact	P6 - Activity
Overview	CPI (Qty)	Calculated From Fact	P6 - Activity
Overview	SPI (Qty)	Calculated From Fact	P6 - Activity
Earned Quantity	Budget At Completion (Units)	Fact	P6 - Activity
Earned Quantity	Cost Variance (Units)	Fact	P6 - Activity
Earned Quantity	Schedule Variance (Units)	Fact	P6 - Activity
Earned Quantity	Cumulative Planned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Actual Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Earned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - CPI	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - SPI	Calculated From Fact	P6 - Activity
Earned Quantity	Period Planned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Period Actual Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Period Earned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Schedule Variance (Units)	Fact	P6 - Activity
Earned Quantity	Cost Variance (Units)	Fact	P6 - Activity
Earned Quantity	Schedule Performance Index (Units)	Fact	P6 - Activity
Earned Quantity	Cost Performance Index (Units)	Fact	P6 - Activity
Earned Quantity	Cumulative Planned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Actual Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Earned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - SV	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - CV	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - SPI	Calculated From Fact	P6 - Activity
Earned Quantity	Cumulative Quantity - CPI	Calculated From Fact	P6 - Activity
Earned Quantity	Schedule Variance (Units)	Fact	P6 - Activity
Earned Quantity	Cost Variance (Units)	Fact	P6 - Activity

Canvas	Fact / Measure	Measure Type	Subject Area / Dataset
Earned Quantity	Schedule Performance Index (Units)	Fact	P6 - Activity
Earned Quantity	Cost Performance Index (Units)	Fact	P6 - Activity
Earned Quantity	Earned Quantity - Estimate at completion (EAC)	Calculated From Fact	P6 - Activity
Earned Quantity	Earned Quantity - Variance at Completion (VAC)	Calculated From Fact	P6 - Activity
Earned Quantity	Earned Quantity - Estimate to Complete (ETC)	Calculated From Fact	P6 - Activity
Earned Quantity	Earned Quantity - EAC % BAC	Calculated From Fact	P6 - Activity
Earned Quantity	Planned Earned Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Actual Quantity	Calculated From Fact	P6 - Activity
Earned Quantity	Earned Quantity	Calculated From Fact	P6 - Activity

Table 89: Project Performance Measurement - Filters Table

Canvas	Filter Type	Is Expression Filter	Filter	Subject Area / Dataset
Overview	Visualization	No	Business Process Name	Unifier - Business Process
Overview	Visualization	Yes	Cost Performance Index (Units) is not null and Schedule Performance	P6 - Activity
All Canvas	Dashboard	No	Project Name	P6 - Activity
Overview	Visualization	No	Calendar Day Date	P6 - Activity
Change Order	Visualization	No	Business Process Name	Unifier - Business Process
Change Order	Visualization	No	Business Process Name	Unifier - Business Process
Change Order	Visualization	No	Business Process Name	Unifier - Business Process

Table 90: Project Performance Measurement - Data Actions Table

Data Action Name	Action Type	Anchor To	Target	Canvas Link	Pass Values	Multiselection
Navigate to Change Orders	Analytics Link	Status	This Project	Change Orders	All	On
Navigate to Activity Details	Analytics link	Project Name	This Project	Activity Details	All	On

Table 91: Project Performance Measurement - Calculated Members Table

Calculated Measure	Expression	Source
Estimate at Completion (EAC)	Primavera - Cost Sheet."Costs"."Revised Budget"/ "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"	Derived From Fact
Actual Cost	Primavera - Cost Sheet."Costs"."User Defined Column 1"	Derived From Fact
Forecast % Revised Budget	Primavera - Cost Sheet."Costs"."Forecast"/"Primavera - Cost Sheet"."Costs"."Revised Budget"	Derived From Fact
EAC % Revised Budget	("Primavera - Cost Sheet"."Costs"."Revised Budget"/ "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)")/"Primavera - Cost Sheet"."Costs"."Revised Budget"	Derived From Fact
SPI (Qty)	Primavera - Activity."Earned Value - (Units)"."Schedule Performance Index (Units)"	Derived From Fact
CPI (Qty)	Primavera - Activity."Earned Value - (Units)"."Cost Performance Index (Units)"	Derived From Fact
Planned Quantity	Primavera - Activity."Earned Value - (Units)"."Planned Value (Units)"	Derived From Fact
Earned Quantity	Primavera - Activity."Earned Value - (Units)"."Earned Value (Units)"	Derived From Fact
Actual Quantity	Primavera - Activity."Units"."Actual Labor Units"	Derived From Fact
ETC (Qty)	Primavera - Activity."Earned Value - (Units)"."Estimate To Complete (Units)"	Derived From Fact
Cost Variance (Qty)	Primavera - Activity."Earned Value - (Units)"."Cost Variance (Units)"	Derived From Fact
Schedule Variance (Qty)	Primavera - Activity."Earned Value - (Units)"."Schedule Variance (Units)"	Derived From Fact

Calculated Measure	Expression	Source
BAC (Qty)	Primavera - Activity."Units"."Planned Labor Units"	Derived From Fact
EAC (Qty)	Primavera - Activity."Earned Value - (Units)"."Estimate At Completion (Units)"	Derived From Fact
Variance At Completion (Qty)	Primavera - Activity."Earned Value - (Units)"."Variance at Completion (Units)"	Derived From Fact
Earned Duration	Primavera - Activity."Earned Value - (Units)"."Schedule Performance Index (Units)" * "Primavera - Activity"."Durations - (Activity)"."Actual Duration"	Derived From Fact
Estimated Duration at Completion	Case when "Primavera - Activity"."Durations - (Activity)"."Actual Duration" > "Primavera - Activity"."Durations - (Activity)"."Baseline Duration" then "Primavera - Activity"."Durations - (Activity)"."Actual Duration" + ("Primavera - Activity"."Durations - (Activity)"."Actual Duration" - "Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)" * "Primavera - Activity"."Durations - (Activity)"."Actual Duration")/"Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"ELSE "Primavera - Activity"."Durations - (Activity)"."Actual Duration" + ("Primavera - Activity"."Durations - (Activity)"."Baseline Duration" - "Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"*"Primavera - Activity"."Durations - (Activity)"."Actual Duration")/"Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"END	Derived From Fact

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Calculated Measure	Expression	Source
Estimated Days Late / (Early)	Case when "Primavera - Activity"."Durations - (Activity)"."Actual Duration" > "Primavera - Activity"."Durations - (Activity)"."Baseline Duration" then "Primavera - Activity"."Durations - (Activity)"."Actual Duration" + ("Primavera - Activity"."Durations - (Activity)"."Actual Duration" - "Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)" * "Primavera - Activity"."Durations - (Activity)"."Actual Duration")/"Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"ELSE "Primavera - Activity"."Durations - (Activity)"."Actual Duration" + ("Primavera - Activity"."Durations - (Activity)"."Baseline Duration" - "Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"*"Primavera - Activity"."Durations - (Activity)"."Actual Duration")/"Primavera - Activity"."Earned Value - (Units)"."Schedule Performance Index (Units)"END - "Primavera - Activity"."Durations - (Activity)"."Baseline Duration"	Derived From Fact
Cost Variance (Qty) - Conditional	case when "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"< 1 then "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"when "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"<0.95 then "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"else null end	Derived From Fact
Pending change order	CASE WHEN "Primavera - Business Process"."General - (BP)"."Status" = 'In_Process' THEN "Primavera - Business Process"."Costs"."Amount" ELSE 0 END	Derived From Fact
Change Order count	Primavera - Business Process."Metrics"."# of BP Records"	Derived From Fact

Calculated Measure	Expression	Source
Revised Budget % Original	Primavera - Cost Sheet."Costs"."Revised Budget"/"Primavera - Cost Sheet"."Costs"."Original Budget"	Derived From Fact
Day Count	RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")	Derived From Fact
Duration Performance Index (DPI)	CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)	Derived From Fact

Calculated Measure	Expression	Source
Duration Variance (DV)	- CAST(MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR,"Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) ELSE NULL END) + CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)" , 0)) - 1 ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) -1 ELSE NULL END) END as INT)	Derived From Fact

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Calculated Measure	Expression	Source
Earned Duration - Estimate at Completion (EAC)	MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) / (CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END))	Derived From Fact

Calculated Measure	Expression	Source
Earned Duration - EAC % BAC	MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) / (CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)) / MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units"))	Derived From Fact
Planned Earned Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE RSUM("Primavera - Activity"."Units"."Planned Labor Units") END	Derived From Fact

ORACLE

Calculated Measure	Expression	Source
Earned quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") ELSE NULL END	Derived From Fact
Earned Duration - Earned duration	CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 ELSE NULL END) END	Derived From Fact
Earned Duration - Budget at Completion (BAC)	MAX((RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")))	Derived From Fact
Earned Duration - Actual Duration	MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)	Derived From Fact

Calculated Measure	Expression	Source
Earned Duration.	CASE WHEN CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) -1 ELSE NULL END) END >= RCOUNT("Primavera - Activity"."Units"."Planned Labor Units") THEN SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") ELSE NULL END	Derived From Fact
Earned duration	CASE WHEN CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) -1 ELSE NULL END) END = RCOUNT("Primavera - Activity"."Units"."Planned Labor Units") THEN RCOUNT("Primavera - Activity"."Units"."Planned Labor Units") ELSE NULL END	Derived From Fact

Calculated Measure	Expression	Source
Earned Duration - Variance at Completion (VAC)	MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) - MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) / (CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)	Derived From Fact

Calculated Measure	Expression	Source
Earned Duration - Estimate to Complete (ETC)	MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) / (CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)) - MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)	Derived From Fact

Calculated Measure	Expression	Source
Cumulative Quantity - SPI	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") ELSE NULL END / CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE RSUM("Primavera - Activity"."Units"."Planned Labor Units") END	Derived From Fact
Cumulative Quantity - CPI	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") ELSE NULL END / CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Units"."Actual Labor Units") ELSE NULL END	Derived From Fact
Period Planned Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN "Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)" ELSE "Primavera - Activity"."Units"."Planned Labor Units" END	Derived From Fact

Calculated Measure	Expression	Source
Period Actual Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN "Primavera - Activity"."Units"."Actual Labor Units" ELSE NULL END	Derived From Fact
Period Earned Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN "Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)" ELSE NULL END	Derived From Fact
Cumulative Planned Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE RSUM("Primavera - Activity"."Units"."Planned Labor Units") END	Derived From Fact
Cumulative Actual Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Units"."Actual Labor Units") ELSE NULL END	Derived From Fact
Cumulative Earned Quantity	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") ELSE NULL END	Derived From Fact

Calculated Measure	Expression	Source
Cumulative Quantity - SV	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Schedule Variance (Units)") ELSE NULL END	Derived From Fact
Cumulative Quantity - CV	CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Cost Variance (Units)") ELSE NULL END	Derived From Fact
Earned Quantity - Estimate at completion (EAC)	Primavera - Activity."Units"."Planned Labor Units" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"	Derived From Fact
Earned Quantity - Variance at Completion (VAC)	Primavera - Activity."Units"."Planned Labor Units" - ("Primavera - Activity"."Units"."Planned Labor Units" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)")	Derived From Fact
Earned Quantity - Estimate to Complete (ETC)	("Primavera - Activity"."Units"."Planned Labor Units" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)") - "Primavera - Activity"."Units"."Actual Labor Units"	Derived From Fact
Earned Quantity - EAC % BAC	("Primavera - Activity"."Units"."Planned Labor Units" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)")/"Primavera - Activity"."Earned Value - (Units)"."Budget At Completion (Units)"	Derived From Fact
Period Cost - Original Budget	Primavera - Cash Flow."Costs"."Initial Baseline"	Derived From Fact
Period Cost - Revised Budget	Primavera - Cash Flow."Costs"."Current Baseline"	Derived From Fact

Calculated Measure	Expression	Source
Period Cost - Forecast	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) < 1 THEN "Primavera - Cash Flow"."Costs"."Forecast" ELSE NULL END	Derived From Fact
Period Cost - EAC	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) < 1 THEN "Primavera - Cash Flow"."Costs"."Current Baseline" ELSE NULL END / (SUM(CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) < 1 THEN "Primavera - Cash Flow"."Costs"."Current Baseline" ELSE NULL END) / ((SUM("Primavera - Cash Flow"."Costs"."Current Baseline") / (SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") / SUM("Primavera - Activity"."Units"."Actual Labor Units"))) - SUM("Primavera - Cash Flow"."Costs"."Actuals")))	Derived From Fact
Period Cost - Actual Budget	Primavera - Cash Flow."Costs"."Actuals"	Derived From Fact
Cumulative Cost - Original Budget	RSUM("Primavera - Cash Flow"."Costs"."Initial Baseline")	Derived From Fact
Cumulative Cost - Revised Budget	RSUM("Primavera - Cash Flow"."Costs"."Current Baseline")	Derived From Fact
Cumulative Cost - Actual	CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) > 0 THEN RSUM("Primavera - Cash Flow"."Costs"."Actuals") ELSE NULL END	Derived From Fact
Cumulative Cost - Forecast	RSUM("Primavera - Cash Flow"."Costs"."Forecast")	Derived From Fact

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Calculated Measure	Expression	Source
Cumulative Cost - EAC	RSUM(CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) < 1 THEN "Primavera - Cash Flow"."Costs"."Current Baseline" / (SUM(CASE WHEN TIMESTAMPDIFF(SQL_TSI_MONTH, "Primavera - Cash Flow"."Calendar"."Calendar Date", CURRENT_DATE) < 1 THEN "Primavera - Cash Flow"."Costs"."Current Baseline" ELSE NULL END) / ((SUM("Primavera - Cash Flow"."Costs"."Current Baseline") / (SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") / SUM("Primavera - Activity"."Units"."Actual Labor Units"))) - SUM("Primavera - Cash Flow"."Costs"."Actuals"))) ELSE "Primavera - Cash Flow"."Costs"."Actuals" END)	Derived From Fact
Cost - Estimate at Completion (EAC)	Primavera - Cash Flow."Costs"."Current Baseline" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"	Derived From Fact
Cost - Estimate to Completion (ETC)	("Primavera - Cash Flow"."Costs"."Current Baseline" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)") - "Primavera - Cash Flow"."Costs"."Actuals"	Derived From Fact
Cost - EAC % Revised Budget	("Primavera - Cash Flow"."Costs"."Current Baseline" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)") / "Primavera - Cash Flow"."Costs"."Current Baseline"	Derived From Fact
Cost - Variance at Completion (VAC)	Primavera - Cash Flow."Costs"."Current Baseline" - ("Primavera - Cash Flow"."Costs"."Current Baseline" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)")	Derived From Fact

ORACLE

Calculated Measure	Expression	Source
Approved Change Orders	CASE WHEN "Primavera - Business Process"."General - (BP)"."Status" = 'Approved' THEN "Primavera - Business Process"."Costs"."Amount" WHEN "Primavera - Business Process"."General - (BP)"."Status" = 'Approved_Scheduled' THEN "Primavera - Business Process"."Costs"."Amount" ELSE 0 END	Derived From Fact
Cost EAC	Primavera - Cost Sheet."Costs"."Revised Budget" / "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)"	Derived From Fact
Forecast % Revised Budget Copy	Primavera - Cost Sheet."Costs"."Forecast"/"Primavera - Cost Sheet"."Costs"."Revised Budget"*100	Derived From Fact
EAC % Revised Budget Copy	("Primavera - Cost Sheet"."Costs"."Revised Budget"/ "Primavera - Activity"."Earned Value - (Units)"."Cost Performance Index (Units)")/"Primavera - Cost Sheet"."Costs"."Revised Budget"*100	Derived From Fact

Calculated Measure	Expression	Source
Earned Duration - EAC % BAC Copy	MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units")) / (CASE WHEN SUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") >= SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN MIN(CASE WHEN RSUM("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)", 0)) - 1 AS FLOAT) ELSE NULL END) ELSE MIN(CASE WHEN RSUM("Primavera - Activity"."Units"."Planned Labor Units") > SUM("Primavera - Activity"."Earned Value - (Units)"."Earned Value (Units)") THEN CAST(RCOUNT(IFNULL("Primavera - Activity"."Units"."Planned Labor Units", 0)) - 1 AS FLOAT) ELSE NULL END) END / MAX(CASE WHEN TIMESTAMPDIFF(SQL_TSI_HOUR, "Primavera - Activity"."Calendar"."Calendar Date", "Primavera - Activity"."Dates - (Project)"."Data Date") >= 0 THEN RCOUNT("Primavera - Activity"."Earned Value - (Units)"."Planned Value (Units)") ELSE NULL END)) / MAX(RCOUNT("Primavera - Activity"."Units"."Planned Labor Units"))	Derived From Fact

A
Custom Data Sets for Unifier Data

Created and Completed BP Overtime Dataset

Subject Area: Unifier – Business Process History

Table: Created and Completed BP Overtime Dataset Fields

Dimension	Dimension / Metrics	Attribute	Expression
	Calendar	Week Name	N/A
	Calendar	Calendar Date	N/A
	Dates - (BP)	Completion Date	N/A
	Dates - (BP)	Creation Date	N/A
	Dates - (BP)	Due Date	N/A
	Dates - (BP)	Send Date	N/A
	General - (BP)	Business Process Name	N/A
	General - (BP)	Status	N/A
	General - (BP)	Business Process Type	N/A
	General - (BP)	Record Number	N/A
	General - (BP)	Title	N/A
	Metrics	# of BP Records	N/A
	Metrics	# OF BP Line Items	N/A
	Metrics	Item Quantity	N/A
	Project Portfolio	Project Portfolio Name	N/A
	Project Portfolio	Project Portfolio Status	N/A
	General - (Project)	Project Object Id	N/A
	General - (Project)	Project ID	N/A
	General - (Project)	Project Name	N/A
	General - (Project)	Project Phase	N/A
	General - (Project)	Project Type	N/A
	General - (Project)	Project Status	N/A
	General - (Project)	Project Owner	N/A
	Location - (Project)	Country Name	N/A
	Project Hierarchy	Project Name (Root Level)	N/A
	Project Hierarchy	Project Hierarchy Name Level 1	N/A
	Derived from Week Name	Week Start Date	`TO_DATETIME(XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Name",'yyyy-mm-dd hh:mi:ss')`

Dimension	Dimension / Metrics	Attribute	Expression
	Derived from Week Name	Week End Date	`TIMESTAMPADD(SQL_TSI_DAY,6,TO_DATETIME(XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Name",'yyyy-mm-dd hh:mi:ss'))`
		# of Completed BP Records	`CASE WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Completion Date" >= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Start Date" AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Completion Date" <= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week End Date" THEN 1 ELSE 0 END`
		# of Created BP Records	`CASE WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Creation Date" >= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week Start Date" AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Creation Date" <= XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Week End Date" THEN 1 ELSE 0 END`

Dimension	Dimension / Metrics	Attribute	Expression
		Open Cases Tag	CASE WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Business Process Name" = 'Corrective Work Orders' AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Status" IN ('In_Progress','Pending_Estimate','Technician_assigned','Final_WO_Review') THEN 1WHEN XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Business Process Name" = 'Preventive Work Orders' AND XSA('demouser'.'Created and Completed BP Over Time Dataset')."Columns"."Status" IN ('In_Progress','Material_Requested') THEN 1ELSE 0END

B
Field Mappings Between Unifier Essentials and Construction and Engineering Analytics

The following table provides field mappings between Unifier Essentials and Unifier - Cost Sheet subject area in Construction and Engineering Analytics:

Unifier Essentials Field	Unifier - Cost Sheet Subject Area Fields
Project Cost 09	"Primavera - Cost Sheet"."Costs"."Revised Commitments"
Project Cost 4	"Primavera - Cost Sheet"."Costs"."Revised Budget"
Project Cost 21	"Primavera - Cost Sheet"."Costs"."User Defined Column 7"
Project Cost 22	"Primavera - Cost Sheet"."Costs"."User Defined Column 8"
Project Cost 24	"Primavera - Cost Sheet"."Costs"."User Defined Column 14"
Project Cost 16	"Primavera - Cost Sheet"."Costs"."User Defined Column 13"
Projected Costs	"Primavera - Cost Sheet"."Costs"."User Defined Column 14" +"Primavera - Cost Sheet"."Costs"."Revised Commitments" +"Primavera - Cost Sheet"."Costs"."User Defined Column 7"
%Projected/Forecast	(("Primavera - Cost Sheet"."Costs"."User Defined Column 14"+"Primavera - Cost Sheet"."Costs"."Revised Commitments"+"Primavera - Cost Sheet"."Costs"."User Defined Column 6") / ("Primavera - Cost Sheet"."Costs"."User Defined Column 7" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13"))
Estimated cost at Completion	"Primavera - Cost Sheet"."Costs"."User Defined Column 8" +"Primavera - Cost Sheet"."Costs"."User Defined Column 13"
% Forecast	1 - (% Projected / Forecast)
Projected Over Under	"Primavera - Cost Sheet"."Costs"."Revised Budget" - ("Primavera - Cost Sheet"."Costs"."User Defined Column 8" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13")

Unifier Essentials Field	Unifier - Cost Sheet Subject Area Fields
% Forecast / Budget	("Primavera - Cost Sheet"."Costs"."User Defined Column 8" + "Primavera - Cost Sheet"."Costs"."User Defined Column 13") / "Primavera - Cost Sheet"."Costs"."Revised Budget"
Project Count	COUNT(DISTINCT "Primavera - Cost Sheet"."General - (Project)"."Project Object Id")