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Primavera
Unifier Earned Value Management User Guide

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Introduction

The Earned Value Analysis (EV Analysis) is an industry standard for analyzing project performance, and it can be used to track:

- Progress to date
- Forecast completion date
- Forecast completion cost
- Schedule variances
- Budget variances
- Performance

As a feedback tool, the EV Analysis helps you to:

- Identify where the problems may occur and whether the problems are critical or not.
- Determine what needs to be done to put the project back on track.

The **Earned Value Analysis** node (**Earned Value Manager** > **Earned Value Analysis**) in Unifier is based on the project schedule data (activities and assignments) and company rates (resources and roles) imported from P6 through integration. The **Earned Value Analysis** node in Unifier:

- Optimizes the use of Unifier cost control features.
- Calculates earned value and other related measures for a project, such as planned value, actual cost, variances, performances indexes, and at completion values using rates defined in Unifier.

> **Note**: Unifier EVM requires database partition tables in Oracle Database. The database partition feature is only available in Oracle Database Enterprise Edition and should be enabled with license.

Use the **Earned Value Analysis Report** node (**Earned Value Manager** > **Earned Value Analysis Report**) to generate ANSI Reports.

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Prerequisite

To be able to use the Earned Value Management (EVM) module:

- You need a license for Primavera Unifier Earned Value Management
- Oracle DB, being used for Unifier, must have DB Partition feature enabled.
- The following Oracle third-party applications must be available:
  - P6

- Gateway

- Unifier and P6 Integration through Gateway must be established.

  Ensure that P6, Gateway, and Unifier integration have configured properly. P6 must have at least one project (if baseline is available in P6 you are set; otherwise, you must use the P6 Current Schedule as baseline).

  The option to enable multiple projects mapping between P6 and Unifier is included in the Shell Attributes form. In the Shell Attributes form, use the Integration tab to map multiple P6 projects with the respective shell in Unifier using P6 Project ID.

Summary of Steps for Earned Value (EV) Analysis

The following is a summary of steps that you must perform for EV Analysis:

1) Begin by setting up integration parameters in Gateway, P6 and Unifier.
2) In Company Workspace (Admin mode), use the two new synchronizations in Unifier Gateway node to import P6 activities, assignments, and rates for EV analysis.
3) In Company Workspace (User mode), initiate the synchronizations from the company-level Master Rate Sheet node to fetch the global roles and resources data from P6.
4) In Shell Details, Integration tab, select the Link Multiple P6 Projects check box and add P6 projects.

   Notes:

   - The same P6 project cannot be mapped to other Unifier shells. The one-many relationship is unique for EVM functionality.
   - The Unifier company currency and P6 base currency must be the same.

5) In the Shell (User mode), the **Activity Manager** module is available to store an activity sheet and shell-level rate, WBS, and OBS sheets.
   I. Initiate synchronizations in the **Activity Sheets** log to get:
      1. The *activities and assignments data* from the linked P6 projects.
   2. In the **Rate Sheet** node, create rate sheets, if shell-specific rates are required. This creates a shell-level Rate Sheet with roles and resources that will be used in the shell.
6) In the Shell (User mode):

   In the **Earned Value Analysis** node (**Earned Value Manager** > **Earned Value Analysis**), perform earned value analysis corresponding to an activity sheet.
   I. Activity sheet data (WBS, CBS, and all projects) is consolidated, rolled up, and displayed in summary tables in an EV scenario.
   2. Earned value analysis can be generated directly for cost loaded projects, with Unifier Rate Sheet.
   3. For resource loaded projects, resource and role rates must be present before analyzing earned value and other matrices.
   4. Duration based projects are ignored because they do not have cost data.
7) In the Company Workspace and Shell, the related areas in Unifier include all permissions, reporting, and Configuration Package Management modules.

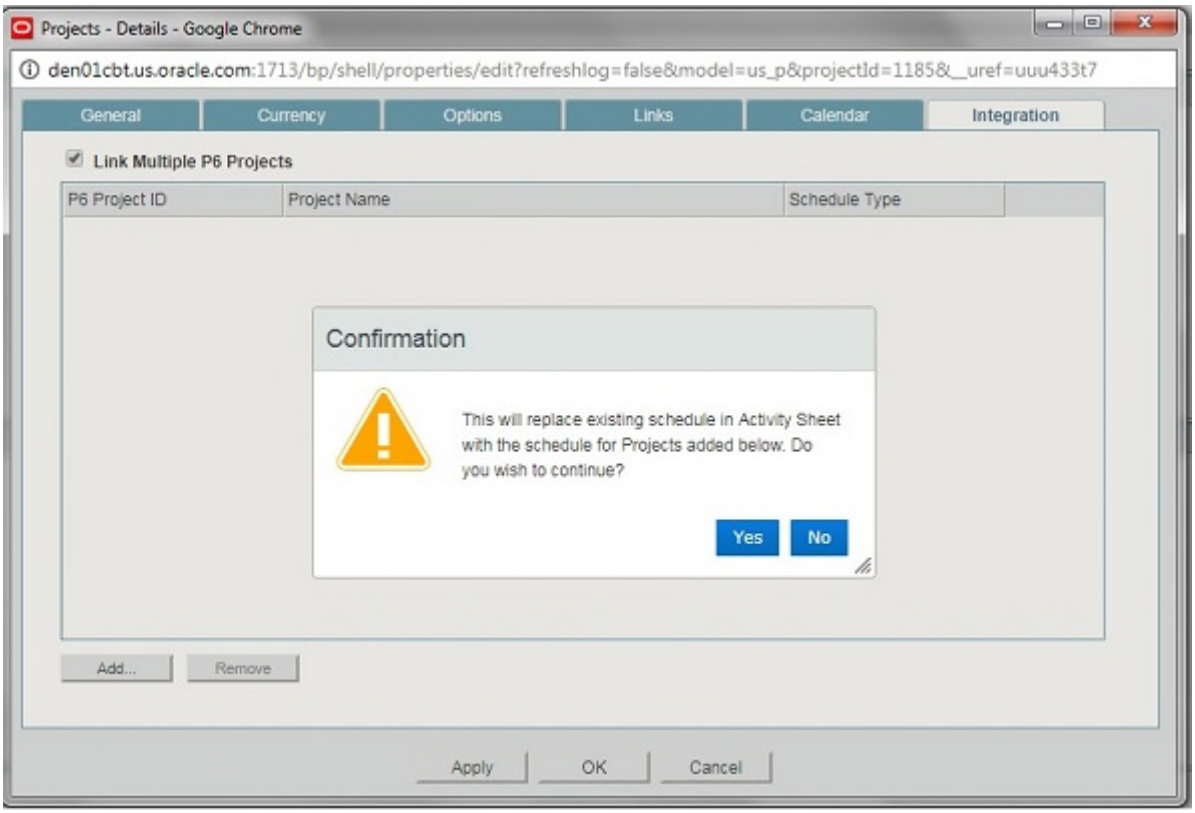
Note: Only the Cost-loaded and Resource-loaded projects are used for EV analysis. Although it can be included in an Activity Sheet, a duration-based project cannot be used for Earned Value Analysis.

Configuring the Gateway Integration

After integration parameters are set up in P6 and Gateway, configure the Gateway integration options in Unifier.

Notes:

- The Summary sheet Integration will not work when you enable link to multiple projects in the Integration tab of a shell.
- All existing Activities data, and corresponding Audit log data, will be deleted when you enable link to multiple projects in Integration tab of a shell.



- When the P6 project id is added in **General** tab of a Shell Details (which is already added in another Shell Integration tab), then the priority will be given to the shell in which the p6 project id added in **Integration** tab on running **Get Data** from any of the shells.

1) Go to the **Company Workspace** (**Admin** mode) and navigate to the **Gateway** node.
2) Open the Integration Settings dialog.
3) Complete the two synchronizations that are available to import P6 activities and rates for Earned Value analysis:
   I. Select Synchronization to import Activity & Assignment data.

2. Select Synchronization to import Role & Rate rates.

   The solution uses existing Unifier and P6 projects only. The existing export synchronization will be used to export data from Unifier to P6 for activity sheet with multiple projects.

   For a successful integration, the Schedule type must be selected in P6. This is a mandatory condition.

3. P6 Base Currency

   By default, the P6 currency is populated with Company Currency.

   If the P6 base currency is not the same as Company Currency, the admin can change it to the relevant P6 base currency.

Begin initiating the Gateway synchronizations to import and store P6 data:

- Role and Resource Rates
- Activity and Assignment Data

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Role and Resource Rates

In the **Company Workspace** (**User** mode), initiate the synchronization from the **Master Rate Sheet** node to fetch the global roles and resources data from P6.

Click **Get Data** to run the synchronization and create the **Master Rate Sheet**. The **Master Rate Sheet** fetches and stores global roles and resource data from P6. Effective dates and standard price/unit imported from P6 on first import can be modified in Unifier. Rates from the **Master Rate Sheet** are used in the Activity Sheet in a Unifier project for P6 resource loaded projects. See ***Master Rate Sheet*** (on page 17) for more information.

> **Note**: Rates are not imported on subsequent synchronizations. Only resource and role lists are updated.

Activity and Assignment Data

In the shell Details, use the **Integration** tab to map P6 projects.

1) Click to expand the the **Activity Manager** module.
2) Click the **Activity Sheet** node to open the log.
3) Click **Get Data** to run the synchronization and create the Activity Sheet.

The Activity Sheet fetches and stores the activity and assignment data from P6, and the role and resource rates data from the company-level Master Rate Sheet. Subsequent synchronizations will update the data. For more information, see the following:

- ***Mapping P6 Projects in Shell Details*** (on page 15)
- ***Attributes*** (on page 229)

Prerequisites for Configuring the Gateway Integration

- Integration Parameters in Gateway and P6
- Permissions

Integration Parameters in Gateway and P6

Complete configuration of the integration parameters in Gateway and P6. The Schedule type must be selected for projects in P6 for successful integration.

Permissions

Grant the required **Administration** and **User** mode permissions for the relevant modules in Unifier by using the following modules:

- Permission templates
- Access Control
- User Administration

For **Administration** mode access (Company) use:

- Gateway

For **User** mode access (Company) use:

- Master Rate Sheet

For **User** mode access (Project/Shell)

- Activity Manager
  - Activity Sheet
  - Rate Sheet
  - WBS Sheet
  - OBS Sheet
- Earned Value Manager
  - Earned Value Analysis
  - Earned Value Analysis Report

See ***Permissions*** (on page 221) for details.

Mapping P6 Projects in Shell Details

When Unifier is integrated with P6 via Gateway, an additional **Integration** tab is displayed in shell details.

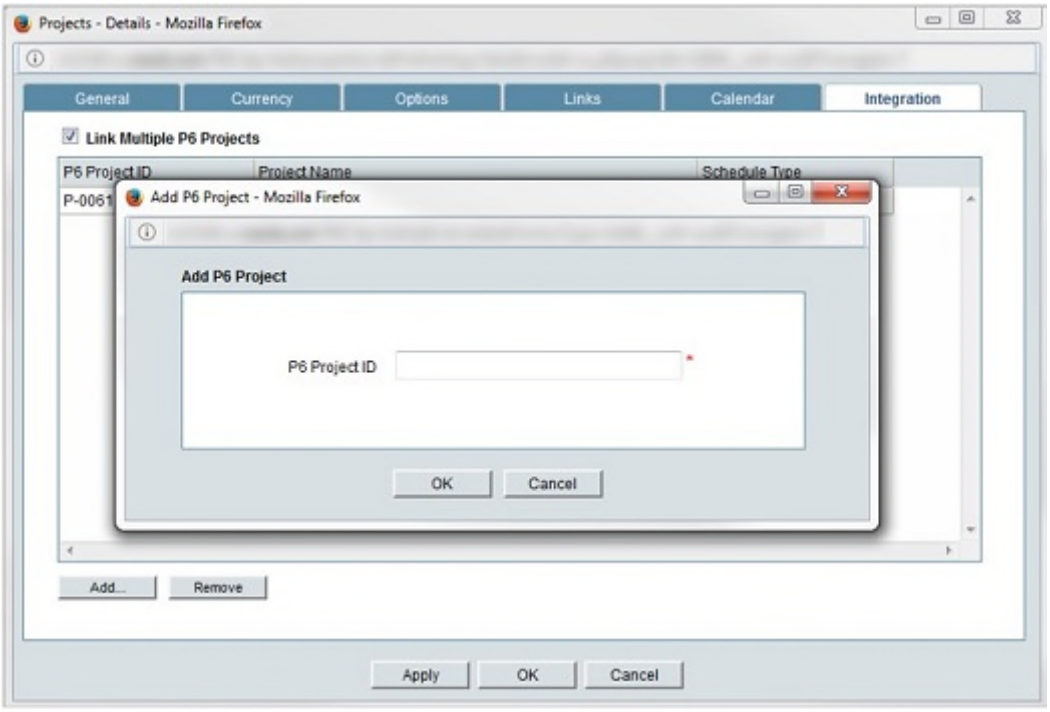
1) Navigate to the shell in which you want to map multiple P6 projects to perform Earned Value analysis.
2) In the **Integration** tab, select the **Link Multiple P6 Projects** checkbox. (This drives the synchronizations in the Gateway node).
3) Click **Add**.
4) In the Add P6 Project dialog, enter the project ID and click **OK**.

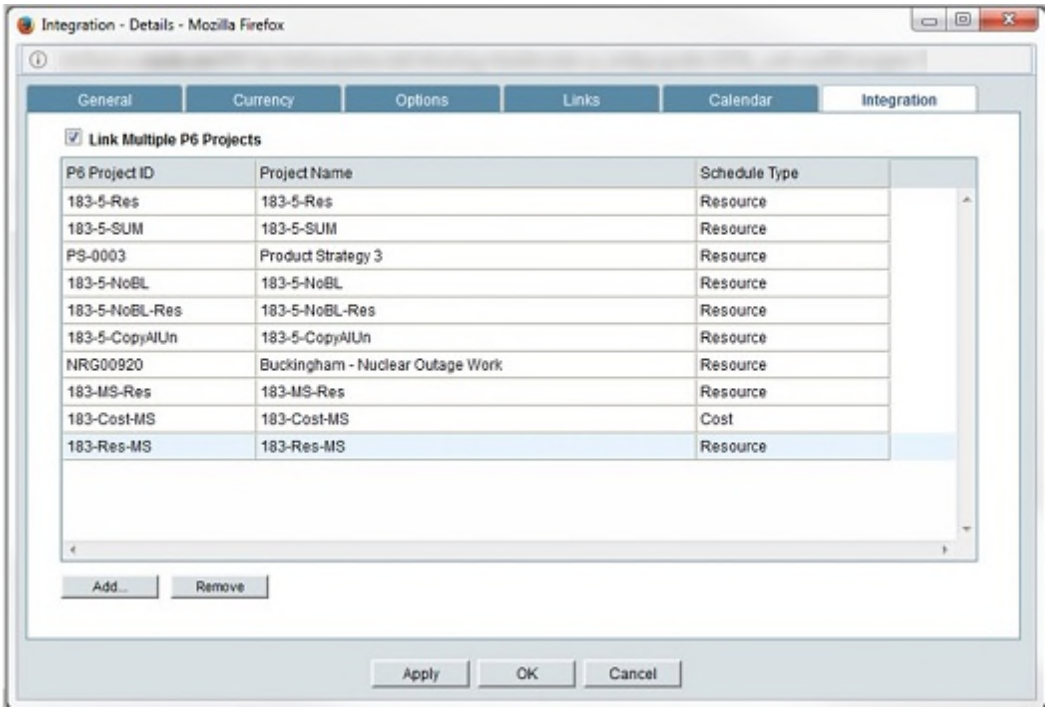
The project name and schedule type are auto-populated after running the sync.

Only Cost Loaded and Resource Loaded projects are used in Earned Value Analysis. Duration Based projects are ignored because they do not have cost data.

After the P6 project and its activities are synced to the Activity Sheet, you cannot modify or delete respective Project IDs. Deselecting the **Link Multiple P6 Projects** check box also cannot be done if any P6 project Ids are added.

The same P6 shells cannot be mapped to other Unifier shells. The one-to-many relationship is unique for Earned Value Management functionality.





Note: The same P6 shells cannot be mapped to another Unifier shell. The one-to-many relationship is unique for Earned Value Management functionality.

Master Rate Sheet

Unifier enables you to set a series of rate rules that should be applied when certain conditions are met in a project by way of the **Master Rate Sheet**.

In P6, users can assign a role, or resource, to an activity under the assignments tab of an activity for any project. The rates (Price/Unit) for assigned roles and resources are managed at global level in P6, which can then be used in a project while doing the costing (calculating Present Value, Earned Value, etc.) of the project depending on the rate source (resource, role or override) corresponding to that assignment in an activity.

A **Master Rate Sheet** is created after the first P6-Unifier integration via Gateway. It fetches and stores global roles and resource data (and their corresponding rates) from P6.

Subsequent synchronizations will update roles and resources but not the rates. By default, the rates present in the **Master Rate Sheet** are used across all the resources and roles present in the activity sheets across all shells unless you assign a shell-level rate sheet to the **Activity Sheet** in that shell.

There is no support to export data from the **Master Rate Sheet** in Unifier to P6 in the multiple mapping paradigm.

The sheet stores all the changes made across all the resources and roles present in it manually or by way of synchronization.

The P6 synchronization for Resource rates and Role rates can result one of the following scenarios:

Scenario One:

P6 Resource currency = P6 Project currency = Unifier Company currency

No changes required

Scenario Two:

P6 Resource currency <> P6 Project currency = Unifier Company currency

The value against any resource rate from P6 comes in P6 company currency, even if the resource currency is different. As a result, while synchronizing with P6, the value coming from P6 as resource rate will be converted to the respective amount in the resource currency.

The exchange rate for doing this will be fetched from the Standards and Libraries with unifier company currency as the base currency.

If there is no exchange rate, then by default Unifier uses zero as the exchange rate. The converted resource rate will be stored in the Master Rate Sheet for an effective date.

If there are multiple rates with different effective dates, then Unifier uses the exchange rate applicable at that effective for conversion.

Scenario Three:

P6 Resource currency = P6 Project currency = <> Unifier Company currency

The currency object between P6 and Unifier will be mapped in Gateway to get the P6 Project currency. Once, Unifier receives the P6 project currency, Unifier treats it as explained in *Scenario Two*, by applying the exchange rate to individual resources.

Scenario Four:

P6 Resource currency <> P6 Project currency <> Unifier Company currency

Unifier implements the process indicated in *Scenario Three*; thereby, converting all the resource rates in unifier company currency.

If the resource rate currency is different from the P6 project currency, then Unifier applies the process indicated in Scenario *Two* to handle this scenario (*Scenario Four*).

> **Note**: While creating a shell-level rate sheet Unifier keeps the currencies that are being used in the Company Workspace because that is where the currency is going to be used by a resource.

Master Rate Sheet and P6 (Multiple Row Rates)

In P6 both the resource and role rates are maintained globally. You can import P6 resource and role rates into the Unifier **Master Rate Sheet**.

For a *resource loaded schedule*, you need rates corresponding to these roles and resources for doing costing of any project in Unifier.

There are two types of rate sheets in Unifier:

- **Master Rate Sheet** (at **Company Workspace**)
  Company Workspace > **User** mode > **Master Rate Sheet**
- **Rate Sheet** (at Project/Shell)
  Project/Shell > **User** mode > **Activity Manager** > **Rate Sheet**

For P6 resource loaded schedule, the **Master Sheet** receives the standard rates which correspond to the roles and resources, and the rates are used in costing of any project in Unifier.

In P6 you can define a role with multiple rates and multiple effective dates and bring the information into the Unifier **Master Rate Sheet**.

> **Note**: When you click on **Get Data** from the **Master Rate Sheet** log, the rate sheet displays all of the existing role rates with effective date as 01/01/2020.

When you create a project rate sheet that only has the resources and roles that are being used in the resource-loaded project in the system activity sheet of a shell, you can see the assigned roles, with the multiple rates, that have been sent to the **Master Rate Sheet**.

You can assign the role rate to the activities and resource assignments and any cost calculations will use the assigned rate.

When you refresh data in the **Master Rate Sheet**, Unifier performs all of the existing validations.

For a *cost loaded schedule*, there are no calculations conducted in Unifier, and Unifier uses the data directly from P6.

In P6, rates are assigned to a role or resource at global level. To maintain the consistency, the P6 global data is imported to Unifier Company Workspace. This data is captured under the **Master Rate Sheet**. That is to say, the rate sheet is created through P6-Unifier integration and is saved as "Master Rate Sheet" under a new node in company workspace called **Master Rate Sheet**.

Under **Company Workspace**, there is only one rate sheet called **Master Rate Sheet**. You are not permitted to create a copy sheet of the **Master Rate Sheet** under **Company Workspace**. The **Master Rate Sheet** contains rates for both *roles* and *resources*. You will be able to toggle between *role* and *resource* rates within the window.

> **Note**: By default, the rates present in the **Master Rate Sheet** are used across all *roles* and *resources* present in all activity sheets across all shells unless the user has assigned another rate sheet (present at the shell level) to the activity sheet/project.

To assign rates at the activity sheet level, you can use a subset of **Master Rate Sheet** in a shell with the *roles* and *resources* being used in the resource-loaded projects in the system activity sheet of that shell, only. Rate sheets present at any shell are subsets of **Master Rate Sheet**. This means, when you click on refresh data (Refresh) for any rate sheet at shell level, then Unifier updates the **Master Rate Sheet** with:

- The list of *roles* and *resources* based on the latest data available in resource-loaded projects in the activity sheet
- The corresponding rates from **Master Rate Sheet**

The following rules are in place when refreshing data:

- If a *role or resource* rate has been removed from the system activity sheet (for that shell0, then Unifier deletes the *role or resource* rate along with the rates in the **Rate Sheet** being refreshed.
- If a *role or resource* rate has been added in the activity sheet, then Unifier updates the rate sheet being refreshed with the new *role or resource* rate along with the rates in the **Master Rate Sheet**.
- For a *role or resource* rate that appears across both the system activity sheet and rate sheet, Unifier updates the currency or Resource/Role name (if applicable), using the *role or resource* ID as the identifier.

A rate sheet in the Master Rate Sheet (at **Company Workspace**) is updated through P6, but a rate sheet in the **Rate Sheet** (at Project/Shell) gets updated in Unifier through the Master Rate Sheet at Company Workspace) and system activity sheet at that shell.

Accessing the Master Rate Sheet Log

To access the **Master Rate Sheet** log:

1) Go to the **Company Workspace**.
2) Switch to **User** mode.

3) On the left-hand Navigator, click the **Master Rate Sheet** node.

> **Note**: The location of the node may differ in your implementation based on the **Company Workspace User Mode Navigator** configuration.

The **Master Rate Sheet** (at **Company Workspace**, **User** mode) log displays the **Master Rate Sheet** created at **Company Workspace** through P6-Unifier integration. When you click on the **Master Rate Sheet** module, the **Master Rate Sheet** log opens.

The **Master Rate Sheet** log contains the following toolbars:

- **Get Data**

  To initiate getting the data.

The **Master Rate Sheet** log contains the following columns:

- **Name**

  For the master rate sheet being created through P6-Unifier integration, the name will be "Master Rate Sheet."
- **Description**

  It will be left blank while creating the master rate sheet through P6-Unifier integration and is an editable field.
- **Last Updated**

  Date when master rate sheet was last updated.
- **Created By**

  For master rate sheet being created through P6-Unifier integration the created by will be P6 or any other Oracle 3rd part applications (if applicable).

The *gear menu* ( ) next to the **Master Rate Sheet** enables you to:

- **Open**
- **Export CSV**
  - **Export Role Rate Breakdown**
  - **Export Resource ate Breakdown**
- **Update Data**
  - **Import Role Rate Breakdown**
  - **Import Resource ate Breakdown**

The **Master Rate Sheet** log contains the following tabs (right-hand pane):

Audit Log	Stores all the changes made across all *roles* and *resource* present in the **Master Rate Sheet** (manual/synchronization).
Schedule	To schedule get data and see the history. The **Schedule** tab enables you to: - Set frequency for getting data or sending data (**Set Frequency for**). - Select the frequency time (**Frequency**). - Set the start and end dates.

History	The History tab enables you to see a history of changes made on the system activity sheet such as: ▸ Action ▸ Requestor ▸ Initiated On ▸ Start Date ▸ End Date ▸ Status

When you open the **Master Rate Sheet**, the **Master Rate Sheet - Resource** overlay page opens.

The **Master Rate Sheet - Resource** overlay page contains the following toolbars:

Status	Enables you to select to see which status to display on page. The options are: ▸ **Active** ▸ **Inactive** ▸ **Delete**
View	Enables you to select the items according to **Resource** or **Role**.
Print	Enables you to print or export the items listed on the page.
Refresh	To refresh the list of items on the page.
Edit View	To change the view of the listed items on the page.
Search	To search for a particular item.
Find on Page	To find an item on the page.
Collapse or **Expand**	Enables you to collapse or expand the items on the page.

The **Master Rate Sheet - Resource** overlay page contains the following columns which provide details about the resource:

- **ID**
- **Name**
- **Type**
- **Currency**
- **Status**

The *gear menu* ( ) next to an item listed on the **Master Rate Sheet - Resource** enables you to:

- **Open Expand Row**
- **Collapse Row**

Master Rate Sheet Log: Toolbar Functions

Get Data is the only option available. Click **Get Data** to initiate the synchronization from the **Master Rate Sheet** node to fetch the global roles and resources data from P6. Currency and Rates are not imported on subsequent synchronizations. Only resource and role lists are updated. Rates can be modified in the **Master Rate Sheet**.

The main grid of the log displays the **Master Rate Sheet**. The log columns are as follows:

- **Name**: Master Rate Sheet
- **Description**: Master list of Resource and Role. Not editable.
- **Last Updated**: Date when sheet was last updated via synchronization or manually.
- **Created By**: The user who initiated the synchronization.

The *gear menu* ( ) for the **Master Rate Sheet** are:

- **Open**: Select to open the Master Rate Sheet.
- **Export CSV**: Use the options to export Role or Resource Rates as CSV. This comprises the global list imported from P6. The structure includes the following information:
  - Resource ID
  - Resource Name
  - Resource Type (Labor, Non-labor, Material)
  - Status
  - Effective From
  - Price/Unit
- **Update Data**: Use the options to import the modified Role or Resource Rates CSV files in order to update role and resource rates.

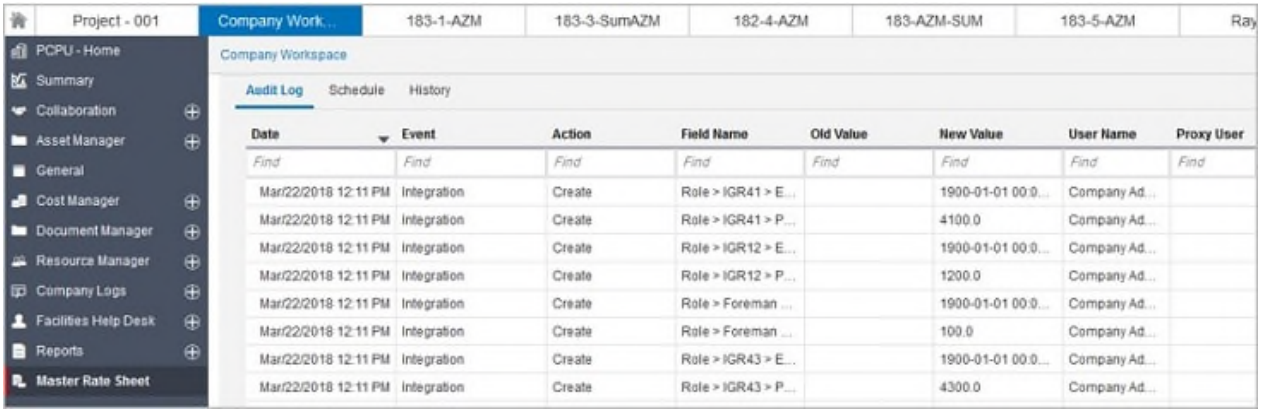
> **Note**: You cannot modify the name and status fields in the import file. The rest (ID, effective from date and price/unit) are all required fields.

Master Rate Sheet Log: Tabs

The right pane of the Master Rate Sheet log has the following tabs:

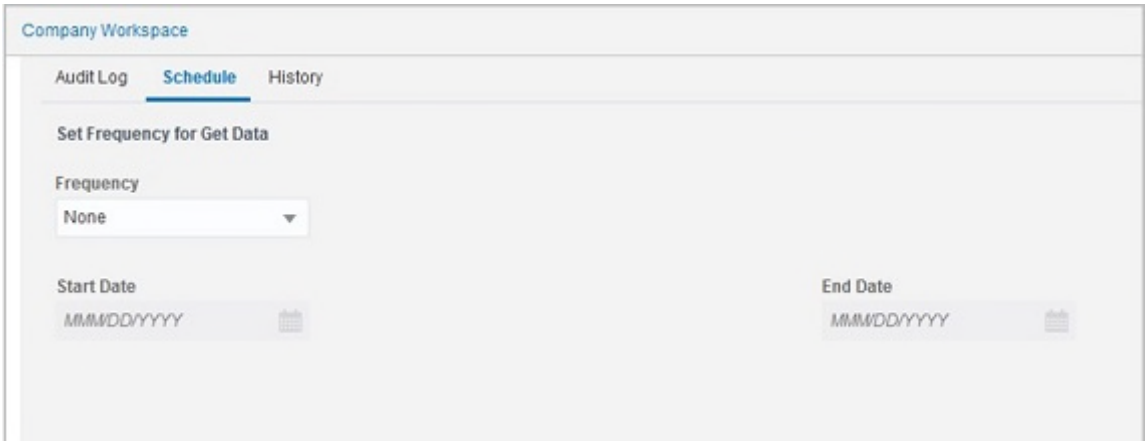
- **Audit Log**
- **Schedule**
- **History**

The **Audit Log** tab tracks all changes made inside the rate sheet.

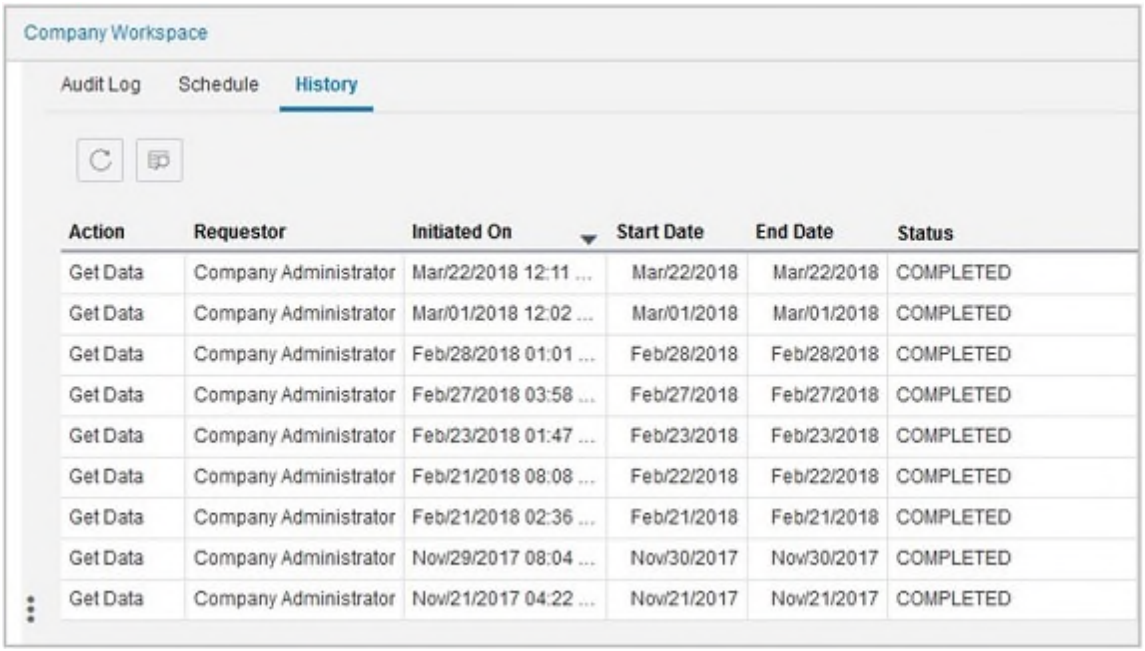


The **Schedule** tab allows you to set the frequency of automatically running the Get Data synchronization at daily, weekly, monthly or quarterly intervals between the specified start and end dates. Possible values in the Status field are:

- Running
- Completed
- Failed



The **History** tab captures information about manual/synchronization (schedule get data) job. The toolbar has **Refresh** and **Find of Page** functions. When you click **Refresh**, Unifier refreshes the History. This enables you to track the status of an ongoing synchronization. For example, when you click **Get Data**, and switch to the **History** tab, and you see new record with "RUNNING" (sometimes empty), then click **Refresh** to see the status changed to "Completed," if the job is done.



Action	Requestor	Initiated On	Start Date	End Date	Status
Get Data	Company Administrator	Mar/22/2018 12:11 ...	Mar/22/2018	Mar/22/2018	COMPLETED
Get Data	Company Administrator	Mar/01/2018 12:02 ...	Mar/01/2018	Mar/01/2018	COMPLETED
Get Data	Company Administrator	Feb/28/2018 01:01 ...	Feb/28/2018	Feb/28/2018	COMPLETED
Get Data	Company Administrator	Feb/27/2018 03:58 ...	Feb/27/2018	Feb/27/2018	COMPLETED
Get Data	Company Administrator	Feb/23/2018 01:47 ...	Feb/23/2018	Feb/23/2018	COMPLETED
Get Data	Company Administrator	Feb/21/2018 08:08 ...	Feb/22/2018	Feb/22/2018	COMPLETED
Get Data	Company Administrator	Feb/21/2018 02:36 ...	Feb/21/2018	Feb/21/2018	COMPLETED
Get Data	Company Administrator	Nov/29/2017 08:04 ...	Nov/30/2017	Nov/30/2017	COMPLETED
Get Data	Company Administrator	Nov/21/2017 04:22 ...	Nov/21/2017	Nov/21/2017	COMPLETED

The following rules are followed while synchronizing the **Master Rate Sheet** data with P6:

- If a resource/role has been removed from the global list in P6, the **Master Rate Sheet** role/resource and corresponding rates will not change.
- If a resource/role has been added to the global list in P6, then the new role/resource is added to the **Master Rate Sheet** along with its corresponding rates.
- If the resource/role exists in both P6 and the **Master Rate Sheet**, then the system updates only the resource/role name, if applicable (using resource or role ID as the identifier).

Opening Master Rate Sheet

Click on the *gear menu* ( ) to open the menu and click **Open** to open the Master Rate Sheet. When opened, the **Master Rate Sheet** displays as an overlay.

The **Master Rate Sheet** log window has the following toolbar options :

- **Status**
- **View**
- **Print**
- **Refresh**
- **Find on Page**
- **Expand All or Collapse All**

The **Status** option enables you to assign one of the following standings on the sheet:

- **Active**
- **Inactive**
- **Deleted**

There are two default views available under the **View** option which enables you to switch between views:

- **Resource**
- **Role**

The **Master Rate Sheet** log window has the following tab:

- **Rates**

The **Rates** tab provides Price/Unit, populated from P6. Click **Create** to manually add new breakdown structure for the following:

- **Cost Type**
- **Rate Type**
- **Price/Unit**

To add new values, click the **Add** icon (the plus + icon). When finished, click **Save**.

You can use a formula to establish rates based on other cost types. When you edit the cell Price/Unit, a formula icon is displayed and when you select the formula icon a new formula window will be displayed.

> **Note**: In Master Rate Sheet some Resources or Roles have incorrect breakdown structure, but they are not assigned to any project. If the Resources or Roles have correct breakdown structure in the project, then the recost will work.

See ***Attributes*** (on page 229) for details about column headings and elements. Refer to the *Unifier Reference Guide* for details on each element.

Activity Manager

Unifier enables you to create, consolidate, and monitor activities that must be completed on a schedule by way of the **Activity Manager**.

To access the **Activity Manager** node:

1) Go to your shell in **User** mode.
2) Click **Activity Manager** node to expand.

The following provides details about each sub-node.

> **Note**: To view the **Activity Sheet**, or other sheets, you must have the appropriate permissions.

You can create user-defined reports (UDRs) from the Activity Sheet Data Elements (DEs).

For a cost loaded schedule, we don't do any calculations in Unifier and use the data directly from P6.

The **Activity Manager** node contains the following sub-nodes:

Node name	Description
Activity Sheet	The **Activity Sheet** node contains a list of activity sheets listed in the **Activity Sheets** log window. You can have have multiple activity sheets. An activity sheet captures scheduling data from the mapped P6 projects and role and resource rates from the company-level Master Rate Sheet (default) or shell-level rate sheets, and calculates the Earned Values metrics and derivatives. It is the primary source of data for the Earned Value Analysis.

Rate Sheet	The **Rate Sheet** node captures the list of resources and roles (based on the latest data available in activity sheet) and corresponding rates from the master rate sheet. In P6, users can assign a role, or resource, to an activity under the Assignments tab of an activity for any project. In P6, rates are assigned to a role or resource at global level. To maintain the consistency, we will import the P6 global data to Unifier company workspace. This data will be captured under a new entity called Master Rate Sheet. The rate sheet being created through P6-Unifier integration will be saved as 'Master Rate Sheet' under a new node in company workspace called Master Rate Sheet. The rates (Price/Unit) for assigned roles and resources are managed at global level in P6, which can then be used in a project while doing the costing (calculating Present Value, Earned Value, etc.) of the project depending on the rate source (resource, role or override) corresponding to that assignment in an activity. For a resource loaded schedule, we need rates corresponding to roles and resources for costing of any project in Unifier. There will be two types of rate sheets in Unifier: ▸ Master Rate Sheet (at company workspace) ▸ Rate Sheet (at Shell) explained in the subsequent sections. A company will only have one Rate Sheet called the "Master Rate Sheet." So, users are not allowed to create a copy sheet of the Master Rate Sheet under company workspace. This sheet will contain rates for both roles and resources, users will be able to toggle between resource and role rates from the display. By default, the rates present in master rate sheet will be used across all the resources and roles present in all activity sheets across all shells unless user has assigned another rate sheet present at the shell level to the activity sheet/project. Refer to the *Unifier Earned Value Management User Guide* for details.
WBS Sheet	A **WBS Sheet** (Work Breakdown Structure sheet) contains the following information: ▸ Planned Units ▸ Planned Total Cost ▸ Actual Units ▸ Actual Total Cost ▸ Remaining Units ▸ Remaining Total Cost ▸ At Completion Units ▸ At Completion Total Cost The WBS Sheet node log displays the only available WBS sheet. Refer to the *Unifier Earned Value Management User Guide* for details.

OBS Sheet	An **OBS Sheet** (Organization Breakdown Structure sheet) contains the following information: ▸ Full Name ▸ Short Name ▸ Unifier User ▸ Title ▸ Department ▸ Status ▸ WBS Name ▸ Contract No ▸ Weekly Capacity The OBS Sheet node log displays the only available OBS sheet. Refer to the *Unifier Earned Value Management User Guide* for details.

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Activity Sheet Node 29
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Activity Sheet Node

An activity sheet captures scheduling data from the mapped P6 projects and role and resource rates from the company-level **Master Rate Sheet** (default) or shell-level rate sheets, and calculates the Earned Values metrics and derivatives. It is the primary source of data for the Earned Value Analysis.

The **Activity Sheet** node contains a list of activity sheets listed in the **Activity Sheets** log window. You can have have multiple activity sheets.

After P6-Unifier integration has been run and P6 projects mapped in the **Integration** tab of shell details, a single activity sheet can be created in the **Activity Sheets** log of the shell. (Shell > **User** mode > **Activity Manager** > **Activity Sheet** > **Activity Sheets** log)

Each P6 project is associated with a baseline project sheet and a current schedule project sheet. The activity sheet allows you to switch between baseline and current project types and view the specific scheduling information – activities, assignments, dates, etc.

Notes:

- Once produced, the baseline project sheet cannot be altered; however, you can update the current project sheet, per Data Date.
- If you update the project baseline in p6, then the project baseline will get updated in Unifier (when running the sync by selecting the

Baseline option for the respective project).

P6 projects in the activity sheet are classified as:

Duration Based projects

Duration Based projects bring activity duration data only. They do not include resource assignment or cost related information, and are, therefore, not available for Earned Value analysis.

Resource Loaded projects

Resource Loaded projects load duration and resource assignment information, but no cost related information from P6. In Unifier, you can assign rate sheet and costing to calculate resource costs in the projects. After costing is completed, they are available for Earned Value analysis.

Cost Loaded projects

Cost Loaded projects bring duration, resource assignment as well as cost information from P6. No further cost calculation is necessary. You can directly use the Earned Value module for cost comparisons and analyses in these projects.

After integration, data brought in to the Activity Sheet are constrained by project categories and the constrains govern the behavior of the Activity Sheet.

In Unifier, we use the Schedule type for defining the projects, and it is displayed as:

Resource	The Activity Sheet receives the entire duration based information from P6 The Activity Sheet receives the entire resource assignment related information (Not always) The Activity Sheet receives the entire cost related information The Activity Sheet is available as a source for Cash Flow and Cost Sheet The Activity Sheet has all cost related feature (Assign rate sheet and Recost) The Activity Sheet is available for Earned Value Analysis

Cost	The Activity Sheet receives the entire duration based information from P6 The Activity Sheet receives the entire resource assignment related information The Activity Sheet receives the entire cost related information The Activity Sheet is available as a source for Cash Flow and Cost Sheet The Activity Sheet does not have any cost related feature (Assign rate sheet and Recost) The Activity Sheet is available for Earned Value Analysis
Duration (without 'Based')	The Activity Sheet receives duration based information from P6 (Not always) The Activity Sheet receives resource assignment related information (Not always) The Activity Sheet receives cost related information The Activity Sheet is not available as a source for Cash Flow and Cost Sheet The Activity Sheet does not have any cost related feature (Assign rate sheet and Recost) The Activity Sheet is not available for Earned Value Analysis

When you click on the **Activity Sheet** node the **Activity Sheets** log opens. The following explains the **Activity Sheets** log.

Activity Sheets Log

The **Activity Sheets** log lists the activity sheets which capture project scheduling data coming from P6.

To access the **Activity Sheets** log, go to the shell (**User** mode), click to expand the **Activity Manager** module, and click **Activity Sheet** sub-node.

> **Note**: The location may differ in your implementation based on the Project/Shell **User Mode Navigator** configuration.

You can use the **Activity Sheets** log to:

- Create an activity sheet
- See a list of activity sheets.
- Review the following information (on the right-hand pane of the log) about a System Activity Sheet:
  - Mapped Projects
  - Schedule

- History

- Review the following information (on the right-hand pane of the log) about a selected activity sheet:
  - Properties
  - Permissions
  - Audit Log
  - History

Activity Sheets Log Toolbar Options

If you have the **Create Manual Activity Sheets** permission, or the **Full Access** permission (see the ***Activity Sheet in Shell (User Mode) Permissions*** (on page 223) topic in this document), then the toolbar options in the **Activity Sheets** log are as follows:

Toolbar Option	Description
Create	Enables you to create new activity sheets. This option is enabled when the user has at least the **Create** permission for the manual activity sheets. The **Create** option has two additional sub-options to support the manual creation of an activity sheet and creating an activity sheet from Activity Sheet templates (when the Activity Sheet templates is made available in the admin mode). When you click **Create**, Unifier checks for manual activity attribute form, if a system activity sheet has been created by using the system activity sheet attribute form. If there is no system activity sheet attribute form defined, or there is no manual activity attribute form, in the design, then Unifier uses the canned form for the activities in the activity sheet. An activity attribute form must be defined in order for you to be able to create custom activity sheets. If a system activity attribute form is defined in uDesigner, but there is no manual activity attribute form, then Unifier displays this message: `Activity attribute form must be defined in order to create custom activity sheets.`

Toolbar Option	Description
View	Enables you to select how to view the list of the activity sheets that are available. To be able to see any activity sheets in the Activity Sheets log, you must have the **View** permission, or above. The **View** drop-down field displays the following out-of-the box, or default, options: **All** To display all of the activity sheets. **Active** To display all of the activity sheets with active status. Available if there are activity sheets in the log that have active status. **Note**: The System Activity Sheet will be active (Status) at all times, and the status cannot be changed.
Actions	To set permissions and import options: **Permissions** To assign activity sheet-level permissions similar to the record-level permissions set for the non-Workflow BPs. **Import** (**Microsoft MPP** or **P6XML**)

Toolbar Option	Description
Get Data **Get Data into System Activity Sheet**	The **Get Data** option will be enabled when you have the **Get Data** permission at the node level in the **Permissions** tab. This option enables you to receive the schedules from P6 or Primavera Cloud based on synchronization selected in Gateway settings. Use the **Get Data** option to: ▸ Create an activity sheet for the first time. ▸ Update an existing activity sheet with the most recent activity spread data from the Oracle Primavera Cloud project. Updating an existing activity sheet triggers a new OOTB import synchronizations if you have selected the Select Synchronization to Exchange Activity Data option in Gateway integration settings drop-down list. All of the synchronized Oracle Primavera Cloud project activities, planned dates, actual, at completion dates, and associated WBS Code will be displayed in the activity sheet. If the shell is not active (inactive shell), then Gateway integration will fail. When you select **Get Data**, the system checks for the Oracle Primavera Cloud project that as defined in the **Integration** tab and then brings the Oracle Primavera Cloud project activity data and their schedules into the activity sheet based on the import synchronization defined in Gateway settings, and if Oracle Primavera Cloud and Unifier projects are linked. If you select **Get Data** and there is no Project ID added in the **Integration** tab, Unifier will display this message: Valid Project ID is not specified in the Shell Integration Tab. Unifier does not bring the baseline (project data) from Primavera Cloud.

Toolbar Option	Description
Send Data **Send Data from System Activity Sheet**	The **Send Data** option will be enabled when you have the **Send Data** permission at the node level in the **Permissions** tab. This option enables you to receive the schedules from P6 or Primavera Cloud based on synchronization selected in Gateway settings. Use the **Send Data** option to run the export synchronization in order to send the updated activities and schedules from Unifier Activity Sheet to the Oracle Primavera Cloud. The data elements in the business processes, or the shell attribute form, which have been set to reverse auto-populate (RAP) back to the Oracle Primavera Cloud Activity Sheet (using P6 Activity Picker) will get the latest updates into the Oracle Primavera Cloud Activity Sheet. You can send the updated Unifier Activity Sheet data (such as: updated Actual Start Date or Finish Dates) to the Oracle Primavera Cloud project which is linked by way of the OOTB export synchronization option: Update Unifier Activity data in to Primavera Cloud. The Schedule tab, in the Activity Sheet log, shows this option, and you can set the scheduled send data based on frequency. Before the initial synchronization, the **Get Data** is the only toolbar function available in the log. Click **Get Data** to initiate synchronization and create the Activity Sheet.
Refresh	To retrieve the latest number of activity sheets created in the log.
Print	To print the log contents into HTML, CSV, or Excel formats.
Find on Page	To search in the log.

If you do not have the **Create Manual Activity Sheets** permission, or the **Full Access** permission (see the ***Activity Sheet in Shell (User Mode) Permissions*** (on page 223) topic in this document), then the toolbar options in the **Activity Sheets** log are as follows:

Toolbar Option	Description
View	See the entry in the table above.
Actions	See the entry in the table above.

Toolbar Option	Description
Get Data **Get Data into System Activity Sheet**	See the entry in the table above.
Send Data **Send Data from System Activity Sheet**	See the entry in the table above.
Refresh	See the entry in the table above.
Print	See the entry in the table above.
Find on Page	See the entry in the table above.

Activity Sheets Log Columns

The **Activity Sheets** log lists the activity sheets. Each activity sheet has a *gear menu* ( ) that can be used to open the activity sheet.

Note: You can also double-click to open the sheet.

In Unifier, you can use an activity sheet to capture the scheduling data from P6 or Primavera Cloud. A single activity sheet (called **System Activity Sheet**) is mapped to multiple source projects, by way of integration. You have the option to view the activities (from the mapped source projects) by using the project drop-down field which contains a list of all source projects mapped to your shell.

The **Activity Sheets** log enables you to see all of the activity sheets, including the system activity sheet. The log displays the following columns that describe the listed activity sheets:

- **Name**

  The name of the activity sheet provided. This field is a required when capturing the activity sheet properties. The activity sheet name must be unique across the activity sheets. For an activity sheet that is created by way of integration from P6 or Primavera Cloud, this column will show the activity sheet as, "System Activity Sheet."
- **Description**

  The activity sheet description entered in the properties for the manual activity sheets.
- **Source Type**

  The activity sheet as either System or Custom. Activity sheets that are created by way of using Get Data will be displayed as "System," and the activity sheets that are created manually will be displayed as "Custom."
- **Status**

  The status of the activity sheet. For the System Activity Sheet the status is active and you cannot change the status. For the manual activity sheets, the default status is active, and you can change status to inactive. The Status column is used in rolling up the costs and spreads to the Earned Value Analysis, Cash Flow, or Cost Sheet, and so forth.
- **Last Updated On**

  Populated with the latest date that the activity sheet was updated. The activity sheet will be updated by means of the schedule, as well as manual updates.
- **Creation Date**

  Populated with the date that activity sheet was created.

All of the date columns will honor the data preference set at the user-level.

Activity Sheets Log Tabs

The **Activity Sheets** log displays the activity sheet properties on the right-hand pane.

For a System Activity Sheet, the following tabs display the properties:

- **Mapped Projects**
  - **Assign Rate Sheet**
  - **Recost**
- **Schedule**
- **History**

For Manual Activity Sheets, where source-type is, "Custom," the following tabs display the properties:

- **Properties**
- **Permissions**
- **Audit Log**
- **History**

To view the tabs, the three vertical dots.

To view the tabs details, click the expand icon, in the right pane or tab screen.

The following explains each tab in details.

Mapped Projects Tab

The **Mapped Projects** tab lists the P6 projects drawn from the **Integration** tab of shell details into the **Activity Sheet**.

The **Mapped Projects** tab toolbar options are:

The toolbar options are:

- **Assign Rate Sheet**
  See below for details.
- **Recost**
  See below for details.
- **Refresh**
- **Find** on Page

Use the toolbar options to assign a shell-level rate sheet to selected projects, recost resource loaded or cost loaded projects, refresh page, and find an item displayed on the page respectively.

The **Mapped Projects** tab columns are:

- Project ID
- Project Name
- Project Type: The values are Current or Baseline
- Project Start Date
- Data Date: The date a project is updated in P6
- Schedule Type: The values are Duration, Resource, or Cost
- ETC Technique: The formula used to calculate the Estimate to Complete. For example: PF = 1/CPI; PF = 1; (1/CPI)*(BAC - EV); 0.75 * (BAC – EV)
- Rate Sheet (Planning): The **Master Rate Sheet** or a shell-level rate sheet used to calculate the costs.
- Rate Sheet (Actuals): The **Master Rate Sheet** or a shell-level rate sheet used to calculate the costs.

Assign Rate Sheet

By default, the resource and role rates in the activity sheet are retrieved from the **Master Rate Sheet** and applied across all the projects. If you have created shell level rate sheets, you can assign a rate sheet to one or more projects.

1) Select one or more projects in the tab.
2) Click **Assign Rate Sheet** to open the **Assign Rate Sheet** window. The **Assign Rate Sheet** window has the following options:
   a. **Planning**

      If you are familiar with the rate sheets in the shell, you can click the drop-down arrow to select a rate sheet, or Master Rate Sheet, as the source. If you need more details about the rate sheets, click the select icon (next to the drop-down arrow) to open the Select Rate Sheet window and review the details of the available rate sheets before selecting.

      Alternatively, you can enter the name of the rate sheet in this window that you want to use to calculate the respective cost.

   b. **Actuals**

      If you are familiar with the rate sheets in the shell, you can click the drop-down arrow to select a rate sheet, or Master Rate Sheet, as the source. If you need more details about the rate sheets, click the select icon (next to the drop-down arrow) to open the Select Rate Sheet window and review the details of the available rate sheets before selecting.

      Alternatively, you can enter the name of the rate sheet in this window that you want to use to calculate the respective cost.
3) Click **Assign** (or click **Cancel** to exit without making any changes).

> **Note**: An alert “No Rate Sheets to Assign” is displayed if no rate sheets exist. You can Assign Rate Sheet only to Resource-loaded projects in the Activity Sheet.

The role and resource rates are applied to the activities/assignments in the selected projects, when refreshed. You must perform **Recost** in order to apply rates from the new assigned rate sheets.

When a different rate sheet is assigned to a project, Unifier displays the following alert message: Perform Recost to see updated costs.

Recost

Recost enables you to perform the cost calculations in an activity sheet, for type selected (i.e., current schedule or baseline schedule). Upon initiating this option, Unifier refreshes the rates for Price/Unit for each assignment, based on the rate source from the rate sheet assigned using the latest rates present. The field will be updated (or used) in recost according to the following rules:

- If the rate source is Resource, then Unifier gets the corresponding data from the resource rate sheet.
- If the rate source is Role, then Unifier gets the corresponding rate from the role rate sheet.
- If the rate source is Override, then Unifier update the Price/Unit and uses the Price/Unit for the respective assignment present in the Activity Sheet.

This functionality applies to Resource loaded projects. Recost for Cost-loaded Projects also takes care of applying the exchange rates for Cost fields if P6 Currency is different than Unifier Company Currency or Shell Currency. Use Recost to perform cost calculations in the Activity Sheet for the schedule type selected (current or baseline).

> **Note**: Recosting cannot be performed on Duration-based projects.

By default, the **Master Rate Sheet** is used to perform costing; however, if a shell level rate sheet is assigned, then values are derived from it instead.

When you activate recost, the following fields (within activities and assignments) are refreshed using the spread data and rates from the assigned rate sheet.

See the following topics for details:

- ***Recost – Activity Attributes*** (on page 229)
- ***Recost – Assignment Attributes*** (on page 233)

The values are taken from the baseline or the corresponding baseline values from the current schedule.

The *activity attributes* are re-calculated by using the spread data and rates from the assigned rate sheet.

The corresponding values at the activity level are calculated by rolling up the values from the assignments.

> **Note**: For recosting, if price/unit and resource/role rates are not defined in the **Activity Sheet**, a default value of 0 is used, and a warning is displayed. If the values are defined, then the project currency is used for the calculations. The rate is multiplied by the number of units to get the cost.

Unifier applies the following logic to recosting:

The calculations are triggered while doing the re-costing for Activity Sheet. Once Unifier receives all the rates, Unifier proceeds according to one of the following scenarios:

Scenario One

Resource Currency = Company Currency = Shell Currency

No changes are required.

Scenario Two

Resource Currency <> Company Currency = Shell Currency

Unifier calculates all the spread data (currency fields) that is present in the Activity Sheet (in the company currency) by using the resource/role rates applicable at each spread Data Date field.

If the resource rate currency is different from the company currency, then the exchange rate will be applied at each spread Data Date field to calculate the spread data.

The spread data will then be rolled up to the respective currency field.

These calculated values in the company currency are used to calculate any dependent field (for example, CPI, SPI, etc.) as part of recosting.

Scenario Three

Resource Currency = Company Currency <> Shell Currency

Unifier calculates all the spread data (currency fields) that is present in the Activity Sheet (in the company currency) by using the resource/role rates applicable at each spread Data Date field.

The spread data will then be rolled up to the respective currency field.

These calculated values in the company currency are used to calculate any dependent field (for example, CPI, SPI, etc.) as part of recosting.

> **Note**: Only Scenario Three is applied to the cost-loaded.

The values in the shell currency will be calculated by using the applicable exchange rate for that shell currency at each spread Data Date field for all currency fields. Unifier uses these values to calculate any dependent field (for example, CPI, SPI, etc.) as part of recosting.

> **Note**: Despite being in the Activity Sheet user interface, you can only see the Activity Sheet data in the Shell currency.

Scenario Four

Resource Currency <> Company Currency <> Shell Currency

Apply the steps indicated in Scenario Two and then apply the steps indicated in Scenario Three.

The **Recost** action must be manually triggered by the user after the following actions are performed in the Activity Sheet, or the Rate Sheet:

1. Assign CBS.
2. Assign Rate Source.
3. Assign Price/Unit.
4. Update Data in actions button inside the activity sheet.
5. Changes in Rates for any of the resources/roles in Rate Sheet in case the resources/roles are referred in Assignments.

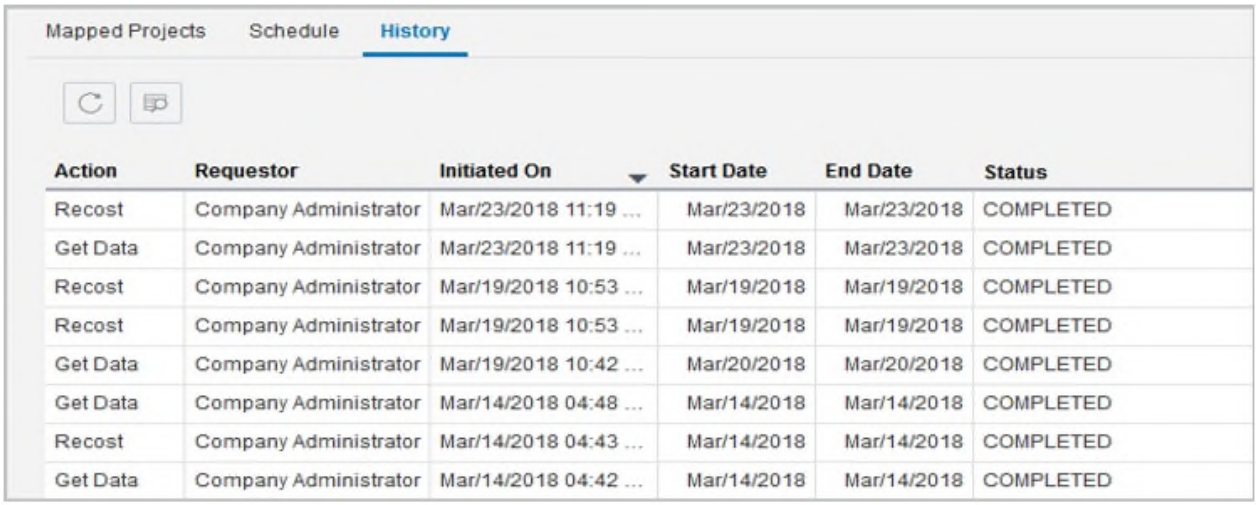
Schedule Tab

Set the frequency of synchronizations to automatically get data from P6 or send data from Unifier at daily, weekly, monthly, or quarterly intervals. The default value is *None*. Define the start and end dates for the scheduled syncs.

History Tab

The tab displays the history of all scheduled jobs that are performed across the projects included in the Activity Sheet. Toolbar has Refresh and Find on Page actions. Columns include:

- Action – Displays actions related to Get Data, Send Data, Recost, and Cost Roll up
- Requestor
- Initiated On
- Start Date
- End Date
- Status - Displays Failed, Running, or Completed



Action	Requestor	Initiated On	Start Date	End Date	Status
Recost	Company Administrator	Mar/23/2018 11:19 ...	Mar/23/2018	Mar/23/2018	COMPLETED
Get Data	Company Administrator	Mar/23/2018 11:19 ...	Mar/23/2018	Mar/23/2018	COMPLETED
Recost	Company Administrator	Mar/19/2018 10:53 ...	Mar/19/2018	Mar/19/2018	COMPLETED
Recost	Company Administrator	Mar/19/2018 10:53 ...	Mar/19/2018	Mar/19/2018	COMPLETED
Get Data	Company Administrator	Mar/19/2018 10:42 ...	Mar/20/2018	Mar/20/2018	COMPLETED
Get Data	Company Administrator	Mar/14/2018 04:48 ...	Mar/14/2018	Mar/14/2018	COMPLETED
Recost	Company Administrator	Mar/14/2018 04:43 ...	Mar/14/2018	Mar/14/2018	COMPLETED
Get Data	Company Administrator	Mar/14/2018 04:42 ...	Mar/14/2018	Mar/14/2018	COMPLETED

Properties Tab

All the activity sheets that are defined in Unifier will be displayed with source type as 'Custom' in the Activity Sheets log. Upon expanding the split pane, the first tab shown will be the activity sheet properties (**Properties** tab). In the right pane, under the **Properties** tab, You can change the values for the following fields:

- **Name**
- **Description**
- **Status**
- **Calendar**
- **Activity Sequence Numbering**

The **Project Schedule Start Date** can be modified if there are no activities that are in progress in the log.

You can modify the activity sequence number in the **Properties** tab. The modified sequence will be displayed for any new activity sheets that are created after the sequence got modified. The activity sheets will not be impacted with this change in the activity sequencing.

When changes are made in the **Properties** tab, the **Cancel** and **Save** options will be enabled. There will be an entry in the activity sheet **Audit Log** tab for the changes made.

Permissions Tab

Use the **Permissions** tab to define, edit, or view other members' permissions in the project. The activity sheet owner, or the user with full access permission, will be able to assign, modify, and view other members' permissions.

The permissions that are allowed to be assigned to other users are:

- **Modify Permissions**
- **Edit Data**
- **View**

The permissions will be similar to record-level permissions set for earned value reports or non-workflow business process. You can select an activity sheet or multiple activity sheets, right-click, and select Permissions. This action enables you to assign permissions to multiple groups and users.

Audit Log Tab

The **Audit Log** tab in the Activity Sheets log captures the following events:

- Creation of the sheet.
- Update of the activity sheet properties, including the data date and activity sequence numbering field.
- The Cost Sheet roll up of costs (in the future).

The **Audit Log** tab will be available for the activity sheets that are created manually.

About System Activity Sheet

The **Activity Sheets** log captures project scheduling data coming from P6. A single activity sheet, for example **System Activity Sheet**, in Unifier will be mapped to multiple project schedule sheets, which are created by way of integration.

Default View of System Activity Sheet

The activity sheets in Unifier are used to capture project scheduling data coming from P6 or Primavera Cloud. An activity sheet created in Unifier can be mapped to multiple source projects which get created by way of integration.

When you open the **System Activity Sheet**, (<shell> > **User** mode > **Activity Manager** node > **Activity Sheet** sub-node > **Activity Sheets** log > **System Activity Sheet** > *gear menu* ( ) > **Open**) that is created by way of integration with P6, or Primavera Cloud, it will list all of the activities in the **Activity Sheet** log.

In the **Activity Sheet** log, the list of all activities are displayed in a flat grid. The first three columns as fixed columns (**Spread** column, **Activity ID**, and **Activity Name**). All of the other columns seen in the grid are in the same order as showing the activity attribute form. The column labels are derived from the activity attribute form.

You can view the activity spread data by using the *gear menu* ( ) option, "**View Activity Spread**" or by navigating to the **Activity Spread** tab in the dock at the bottom of the screen (or the bottom right pane where the activity details can be viewed). When you click **View Activity Spread**, the activity spread tab will be highlighted, and you can view the spread data of the selected activity.

The activity details and other tabs can be seen in the bottom pane, by default, the first time when a sheet is created. You can use the split pane to view the activity and assigned resources details.

Within the **System Activity Sheet**, the default name of the view is "**Default**." The default view is not editable. You can create new views based on the default view, when editing the view settings. This is similar to the default view available in **WBS Sheet**.

The **Source Project** drop-down field is visible at the top of the activity sheet as, "<Source name> Project : <Project ID>." The Source Project drop-down contains list only if the activity sheet received activity data from multiple source projects.

The link to the source project is base on the source URL, provided in the company properties.

The ink to view the baseline project is displayed next to the source project, where you can select the link to view the baseline data for the selected source project. If there are no baselines received for the selected source project, then this link is not displayed.

The **CBS Code** column is an editable column in the **Activity Sheet** for all of the activities, and the picker is displayed when you double-click the **CBS Code** column cell.

You can assign the CBS codes to the activities by selecting the picker, or by using the type-ahead functionality. You can assign a single **CBS Code** to multiple rows by dragging.

The **CBS Code** assigned to an activity for the first time automatically assigns the same **CBS Code** to all of its resources. Unifier does not push to the resources any subsequent updates of the **CBS Code**, at the activity level.

The **Save** and **Cancel** options will become available once you edit the **CBS Code**, or the **Rate Source**, in the activity sheet.

When you click the *gear menu* ( ) for an activity, you can click the **Apply CBS Code to All Assignments** to assign the **CBS Code** to all of the resources under that activity.

Once the **CBS Code** is updated at the activity level, you can assign same **CBS Code** to all of the resource assignments of the activity by using right-click on the activity and selecting the option "**Apply CBS Code to all Assignments**". This selection causes all of the assigned resources **CBS Code** to be updated.

Once you assign or update the **CBS Code**, both at the activity level and the assignment level, Unifier updates the contents of the the **Audit Log** tab.

You can select multiple activities and update the **CBS Code** to the resources of the selected activities by right-clicking and selecting the option "**Assign CBS Code to All Assignments**."

All of the actions related to the export of the activities and the assignments, and the import of the **CBS Code** assignments to the activities and the assignments, can be done by way of the **Menu** (the icon with three horizontal lines), on the right-hand side of the window. The **Menu** has the following options:

- **Export**
  - **CSV Template for Activities**
  - **CSV Template for Assignments**
  - **All Activities**
  - **All Assignments**
- **Import**
  - **CBS Code for Activities**
  - **CBS Code for Assignments**
- **Audit Log**

You can assign the same **CBS Code** to multiple activities by selecting multiple consecutive cells, in the **CBS Code** column, and adding **CBS Code**. Similarly, you can remove CBS assignment by selecting the **Clear** option in the picker column itself. The following option is available within the **Actions** menu: **Apply CBS Code to all Assignments**. Using this option enables you to apply the **CBS Code** assignments to all of the resources associated to the highlighted activities.

You can also use the *gear menu* ( ) option "**Apply CBS Code to all Assignments**" to highlight multiple activities and apply the same CBS Code to the assigned resources.

In the **Activity Sheet** log, you can view the activity details by selecting a row and clicking on the split panel. When you select the split panel, the bottom pane will expand to show the details of the activity in multiple tabs: **General**, **Resource Assignments**, **Activity Spread**, and **Audit Log**.

General tab

Contains all of the details related to the activity sheet, which are defined in activity attribute form including the **WBS Details**. The data elements and the order of the data elements, shown in the **General** tab, are based on the activity attribute form. The hidden data elements are not shown in the **General** tab. You can dock this pane to the right side of the screen. If you dock the pane at bottom, or right side, manually, Unifier retains your choice after closing the **Activity Sheet** window. You can expand the bottom pane by using the expand icon on the right-hand side.

Activity Spread tab

When you select the spread column option for an activity, the **Activity Spread** tab will be highlighted to show the spread of the selected activity. The **Activity Spread** tab will show all of the data (both for costs and for units) in one spread sheet. Also, the **Type** drop-down field will no longer be available because the costs and units spread data appears on one single sheet. You can expand the screen to view more spread data. The order of the columns in the **Activity Spread** tab are as follows:

- **Periods (Instead of Period Start)**
- **Cost & Rate Type**
- **Planned units**
- **Actual Units**
- **Remaining Units**
- **At Completion Units**
- **Planned Cost**
- **Actual Cost**
- **Remaining Cost**
- **At Completion Cost**

The **Frequency** drop-down field shows "Day" timescale to enable you to view the daily spread data. The toolbar options available are:

- **Find on Page**
- **Print**
- **Frequency**
- **Cost & Rate Type**

You can view the spread data for each activity by navigating to different activities under the spread column.

> **Note**: Only one activity spread data is displayed. If you select multiple activity rows, then Unifier displays: "**Details of multiple activities cannot be viewed.**"

Resource Assignments tab

In the **Resource Assignments** tab, all of the resources associated with the activity are displayed. Both the **CBS Code** and the **Rate Source** columns are editable. By default, the picker icon is not displayed until you click on the cell of the columns.

You can edit a **CBS Code** for a particular resource and assign the same **CBS Code** to other resources by dragging the **CBS Code** to multiple rows.

The **Rate Source** drop-down field displays all of the rate sources:

- **Resource**
- **Role**
- **Override**

In the case of the resource, the **Rate Source** field drop-down shows the option "**Resource**" as selected.

For the roles, the **Rate Source** field drop-down shows the option "**Role**" as the source selected.

You can edit the price or unit for planning and actuals if the value for the Rate Source is selected as: "**Override**."

The **Cancel** and **Save** options appear when you attempt to edit the **Rate Source** value, or the **CBS Code**, or other fields based on the **Rate Source** in the **Resource Assignments** tab.

If you try to navigate to an activity sheet without saving the tab information, then Unifier notifies you.

Selecting the "**View Assignment Spread**" from *gear menu* ( ) option (for any selected resource) displays the spread data for that resource (a full screen overlay window). You can view the daily spread data of the resource. The **Frequency** drop-down field will show additional option to select: "**Daily**."

This window will have an additional drop-down field to select the resources that are in the Resource Assignments tab, for the selected activity. Both the costs and the Units spread will be seen in a single spread sheet. Click **Close** to close the spread sheet. In the **Activity Sheet** the following two default views are available:

- **Default View**
- **WBS View**

> **Note**: Any existing views that were created prior to the 20.10 upgrade will not be seen in the View drop-down field.

The **Default View** will be seen by default when you open the sheet. In the **Default View** drop-down field, all of the activities will be in flat mode.

When you select the **WBS View** drop-down field, all of the activities within the sheet will be grouped by WBS hierarchy. At WBS (Summary level), all of the costs show the sum of the costs of all of the activities, as well as the costs that are received at the summary level.

The **Start** and **Finish** dates, in the WBS row, will show the earliest start date and latest finish dates for all of the activities under that WBS.

All the attributes defined in the **Activity Attribute** form will be displayed as columns in the **WBS View**, similar to the **Default View**. The order of columns will be the same as selected in the design, in uDesigner.

You can create views with filters, groupings, and so forth (within an activity sheet) in order to view the filtered and small list of activities and associated columns, instead of scrolling down and right to navigate to specific activities.

For the default and user-defined views, you can perform the following functions, in addition to adding, deleting, and updating the activities and the schedules:

- Drag and drop columns and reorder the columns, except the first 2 columns (Activity ID and Activity Name) which are fixed.
- Click at a column header to change the Sort By option.
- Right-click at a column header and select Lock after this column option to lock a column.
- Right-click at a column and select Lock after this column option to lock a column.

> **Note**: You cannot lock before this column beyond the **Activity Name** column.

Similar to a Cost Sheet or a WBS Sheet, you can group selected columns in the sheet.

Creating System Activity Sheet

The **System Activity Sheet** can be created using the following synchronizations:

- Get Activity data from P6
- Get Activity and Assignment data from P6 for EVM
- Send Primavera Cloud Activity data to Unifier

> **Note**: For an activity sheet, the blocks and fields on the right-hand pane can differ based on the synchronizations.

You have the option to view activities present in a P6 Project mapped to Unifier Shell, in the **Activity Sheets** log, by selecting the corresponding P6 Project ID in the **Project** drop-down present inside the **Activity Sheet** log, when you open the system activity sheet from the **Activity Sheets** log.

The **Project** drop-down will contain the list of all P6 projects mapped to the shell and selecting a project from this drop-down will load the respective scheduling data (activities) in the **Activity Sheets** log.

A project in P6 can be a current schedule project or a baseline schedule project. Over the project life span, a user can create multiple baseline projects which are mapped to a current schedule project.

While sending data from P6, a baseline project sheet is created for the Project baseline (and not for Primary baseline, Secondary baseline, or Tertiary baseline, etc.). As a result, every project from P6 will have a baseline project sheet and current schedule project sheet (which will have the scheduling information i.e. activities, assignments, etc.).

If a P6 project has only current schedule, then Unifier treats the planned data in current schedule as the baseline.

The project sheets which are created in Unifier by way of integration are grouped under a single activity sheet that can be selected to perform Earned Value (EV) analysis. Refer to the *Unifier Earned Value Management User Guide* to learn how to calculate earned value and related measures for your project.

The fields related to costing can be updated in Unifier and re-costed for a resource loaded schedule.

You can assign a rate sheet to a resource-loaded projects present in the **Activity Sheet** log, when you open the system activity sheet from the **Activity Sheets** log, but if you want to perform an operation at the project sheet level, then you can open the activity sheet, select the project and schedule type, while working on the activity sheet.

You have the option to switch between current schedule and baseline schedule for the project that you have selected from the drop-down list.

The **Activity Sheet** node, **Activity Sheets** log, has the following toolbar options:

Get Data	Enables you to create an Activity Sheet for the first time, or update an existing Activity Sheet with the most recent data from P6. The **Get Data** synchronization that created the activity sheet also populates the activity sheet with the: ▸ Scheduling data (activities along with assignments and spread data) from the P6 projects mapped to the current shell in the **Integration** tab. ▸ Role and resource rates data from the Master Rate Sheet for the mapped projects. **Note**: Subsequent updates of Role and Resource Rates in P6 will not trigger the updates in Unifier Master Rate Sheet; however, subsequent updates of CBS Code for activities in P6 will trigger the updates in the Unifier Activity Sheet CBS assignments.
Send Data	Enables you to send data from Unifier to P6. This will trigger the synchronizations at Gateway level.

The **Activity Sheet** node, **Activity Sheets** log, has the following columns:

Name	The shell name that the activity sheet is being created through P6-Unifier integration.
Description	Populated with the value "System Activity Sheet created via P6-Unifier Integration" for system activity sheet.
Last Updated	The date when the activity sheet was last updated, based on either Recost or Integration.
Created By	The user who initiated the Get Data flow for activity sheet that is being created through P6-Unifier integration. If there are no data present (when Get Data is launched) Unifier creates a line item (with history), by default.

The *gear menu* ( ) next to the system activity sheet enables you to open the system activity sheet.

The **Activity Sheet** node, **Activity Sheets** log, has the following tabs (right-hand pane):

Mapped Projects	The **Mapped Projects** tab has the following toolbar options: ▸ **Assign Rate Sheet**: To select **Planning** and **Actuals** specifications. You can select a rate sheet from the list and specify the project to which the rate sheet will be assigned (from the Project). ▸ **Recost**: To roll up the CBS costs (Cost Loaded), or to re-calculate all costs (Resource Loaded). It enables you to perform the cost calculations in an activity sheet, for type selected (i.e., current schedule or baseline schedule). ▸ **Refresh**: To refresh the **Mapped Projects** tab log items. ▸ **Find on Page**: To find a particular project in the **Mapped Projects** tab log items. The **Mapped Projects** tab has the following columns: ▸ Project ID ▸ Project Name ▸ Project Type ▸ Project Start Date ▸ Data Date ▸ Schedule Type ▸ ETC Technique ▸ Rate Sheet (Planning) ▸ Rate Sheet (Actuals)
Schedule	The **Schedule** tab enables you to: ▸ Set frequency for getting data or sending data (**Set Frequency for**). ▸ Select the frequency time (**Frequency**). ▸ Set the start and end dates.
History	The **History** tab enables you to see a history (the history of all events that have been performed across project sheets present in the activity sheet) of changes made on the system activity sheet such as: ▸ Action ▸ Requestor ▸ Initiated On ▸ Start Date ▸ End Date ▸ Status

When you open the activity sheet (system activity sheet) from the **Activity Sheets** log the **Activity Sheet** overlay page opens. The **Activity Sheet** overlay page displays all of the activities data, in columns, and it enables you to view activity spreads, source project, and so forth.

The **Activity Sheet** overlay page has the following toolbar options:

Actions	Enables you to: **Assign CBS** The option **Assign CBS** changes to **Assign CBS Code** in an existing activity sheet that has been created by using "Get Activity and Assignment from P6 for EVM" synchronization, and the **Assign CBS** window label changes to the **Assign CBS Code**. **Export CSV** (Activities - Assignments - Audit Log) **Update Data** **Activities** (Export CSV Template - Import CSV) **Assignments** (Export CSV Template - Import CSV)
View	Enables you to: ▸ View all activities (**All**). The default view with all the columns. ▸ Create a new view (**Create New View**). Create a new view and save it under a user defined custom name. ▸ Manage your views (**Manager Views**)
Refresh	To refresh the list of items on the page.
Edit View	To change the view of the listed items on the page. ▸ Columns: Enables you to add or remove any column to the default Activity sheet view. Also enables you to arrange columns in any order within the sheet. ▸ Filter: Enables you to filter the results based on a column. ▸ Group by: Enables you to change the Group By option. ▸ Sort by: Enables you to choose a sort order.
Search	To search for a particular item.
Find on Page	To find an item on the page.
Project	Enables you to select a project for the list.

Open Project in <source name> <source name> = Oracle Primavera Cloud or P6	You can use the **Open Project in <source name>** option (also see ***About Unifier and Oracle Primavera Cloud Integration*** (on page 172)) to open the Oracle Primavera Cloud page and open the source URL either in P6 or Oracle Primavera Cloud, in a new tab with the **Activities** tab pointing to the relevant project data (the project that is selected in the drop-down provided there is an active login session). The login on the new tab for P6 or Oracle Primavera Cloud will be displayed where you ender your login credentials to sign in and see the relevant project data. **Note**: You can see the project is opened even when that particular project is closed in the source server. Selecting this icon will open the source application in a new tab provided there is a valid URL specified. If no URL is defined in the company properties page, then this link will not be shown in the Activity Sheet. Also when you switch to Baseline, the link is not displayed.

The **Activity Sheet** overlay page has columns that provide more details such as:

- **Activity ID**
- **Activity Name**
- **Activity % Complete**
- **Activity Status**
- **Activity Type**

More information about the columns below.

The *gear menu* ( ) next to the activity enables you to:

- **View Activity Spread**
- **Assign CBS**

The **Activity Sheet** overlay page has the following tabs (right-hand pane):

General	This tab provides information about: - **WBS Attributes** - **Activity Attributes (General)** - **Activity Attributes (Schedule)** - **Activity Attributes (Units)** - **Activity Attributes (Cost)** - **Activity Attributes (Earned Value)** More information about fields within the information above:

Assignments	This tab provides information about: ▸ **Resource Name** ▸ **Role Name** ▸ **Rate Source** ▸ **CBS Code** ▸ **Planned Units** ▸ **Actual Units** ▸ **Remaining Units** ▸ **At Completion Units** ▸ **Price/Unit (Planning)** ▸ **Price/Unit (Actuals)** ▸ **Planned Cost** ▸ **Actual Cost** ▸ **Remaining Cost** ▸ **At Completion Cost** The *gear menu* (⚙) enables you to: ▸ **View Assignment Spread** ▸ **Assign CBS** ▸ **Assign Rate Source**
Audit Log	This tab enables you to see audit details.

Creating an Activity Sheet

In the **Activity Sheets** log window, click **Get Data** to open the **Get Data** window.

1) Choose one of the following options:
   a. Click to select the **All Projects** field and populate the field box with all available projects. You can use the x in front of the project name to remove it from the field box.
   b. Click the field box to see the list of projects and then click on the project that you need.
2) Select the project type: **Type**. You may have to scroll down, if you select all projects.
3) Click **OK** to apply your selection and close the window.

When the **Activity Sheets** log window opens, you will see the following additional options on the toolbar:

- **Send Data**: Use this to send Unifier activity sheet data to the projects in P6. This will trigger the synchronizations at Gateway level.

Creating an Activity Sheet (Manual)

In the **Activity Sheets** log (User mode):

If you have permission to receive and send the scheduling and resource data into an activity sheet from P6 or Primavera Cloud, then the Activity Sheets log displays the following options in the log window:

- **Get Data**
- **Send Data**

As explained in the previous topic, you can use these toolbar options to create an activity sheet.

If you have permission to use **Get Data** only, then you will see the **Get Data** option in the log window.

If you have the **Create Manual Activity Sheets** permission, or the Full Access permission, (see the ***Activity Sheet in Shell (User Mode) Permissions*** (on page 223) topic in this document), then you will see the **Create** option in the log window.

If only the standard activity attribute form is defined but not manual activity attribute form (in uDesigner), then the **Create** option in the **Activity Sheets** log is not displayed.

When you click **Create**, the **Create Activity Sheet** window opens which enables you to name the manually created activity sheet, determine the status, select a calendar, select the source for the project schedule start date, select the schedule start date, data date, and the activity sequence number.

When you have permission to create activity sheets both manually and through synchronization with P6 or Primavera Cloud, the following options are displayed in the log:

- **Create**
- **Send Data**
- **Get Data**

The following explains the Create Activity Sheet window fields:

Name	To specify the activity sheet name. This is a required field. The name specified should be unique. Also, you cannot enter the sheet name as 'System Activity Sheet'. The field allows up to 150 characters long names.
Description	To describe the activity sheet. This field allows alphanumeric characters and supports all special characters. It is a long description field that allows up to 400 characters long.
Status	To make an activity sheet active or inactive. The default status is Active. The activity sheet can later be set as active or inactive through the properties screen. Only the active sheet data will be rolled up to other cost modules like Cost Sheet, EVM Sheet, and Cash Flow, and so forth.
Calendar	A drop-down field with 'Project/Shell Calendar' as the default value. It lists all of the calendars that have been defined at the Custom Calendars node, in the shell, project, and company calendars (as defined in Standards & Libraries). This field enables you to select any calendar for the project schedule. You cannot deselect the calendar from the drop-down, but you can change the selected calendar.

Project Schedule Start Date	This field is identified as the start date for the project schedule as defined in the activity sheet. The project schedule start date can be entered manually by selecting the Manual option or by using the shell attribute: uuu_project_start_date. This is a required field in the activity sheet properties. If it is selected as manual, then you must provide a start date in order to be able to save the activity sheet properties. The second option 'From Shell Attribute' will populate the start date on the activity sheet by using the targeted project start date (uuu_project_start_date) on the shell or project properties which in turn can be received from the project creation business process. Any change in the project start date in shell properties will automatically update the activity sheet start date. Synchronous update to the activity sheet takes place as long as there is no activity which is either in-progress or has been completed.
Data Date	The value in this field will populate the data date for the scheduled activity sheet. Initially, the value is the project start date, if no schedule has been run.
Activity Sequencing Numbering	To define the sequence number for the Activity ID while defining activities or tasks in the activity sheet. The following sub-fields are available:
Activity ID Prefix	To define the sequence prefix which can be a sequence of characters. The limit on the number of characters will be between 1 to 20. This is a required field, and the default value is'A.' The field allows alphanumeric characters.
Activity ID Suffix	This field defines the suffix for the Activity ID. It allows integer digits from 1 to 6 characters long. The range will be between 1 to 999,999. No negative and decimal values are allowed. The default value will be 1000.

Increment	To define the increment that each activity sheet can be incremented. It allows only integer digits from 1 to 1000. The default value i '1.' No negative and decimal values are allowed. Unifier shows the unique ID for each activity sheet that is defined. Example: Prefix of A combined with the suffix of 1000 with default increment as '1' would show the activity IDs as A1000, A1001, etc. The above activity sequencing format will be honored for all new activities that get created within the Sheet. Any activities that get imported from an external source (MPP or P6 XML) or CSV import then the activity ID column will show the imported IDs if provided otherwise would use the activity sequence defined in the sheet properties to generate a unique Activity ID for all the activities that are imported. You can change the activity sequencing anytime from the properties window. All of the new activities will honor the new sequence format, if the activity sequencing is changed. Any changes to the activity sequence numbering fields will be audited (Audit Log).

Activity Sheets Log - Activity Sheet Window

The **Get Data** synchronization that created the activity sheet also populates the activity sheet with the:

- Scheduling data (activities along with assignments and spread data) from the P6 projects mapped to the current shell in the **Integration** tab.
- Role and resource rates data from the **Master Rate Sheet** for the mapped projects.

> **Note**: Subsequent updates of CBS Code, Role Rate, and Resource Rate in P6 will not trigger the update of the CBS Code (in the **Activity Sheet**) and Role Rate and Resource Rate (in the **Master Rate Sheet**) in Unifier. This is to prevent data in Unifier to be overridden by updates in P6.

Go to the shell (**User** mode) > **Activity Manager** module > **Activity Sheet** node to open the **Activity Sheets** log which lists the activity sheets. You can also double-click to open the activity sheet.

Each activity sheet has a *gear menu* ( ) that can be used to:

- **Open**

  To open the Activity Sheet from the log. Alternatively, you can highlight a row, right-click, and use the **Open** option.
- **Copy**

Also available by using right-click on the activity sheet. To create a new activity sheet by copying all of the activities, schedules, associated WBS, and assignments (in future). The default name of the Activity Sheet will be 'Copy of <Activity Sheet Name>'. This *gear menu* ( ) option will not be seen if you select multiple activity sheets or for the System Activity Sheet.

- **Permissions**

  To assign **Edit**, **View**, and **Modify** permissions to other users for the selected activity sheets. The functionality supported is same as assigning permissions to non Workflow BPs.

When you open an activity sheet, the **Activity Sheet** log window opens.

The **Activity Sheet** log window contains the full log. By default, the left grid displays the current schedule for the first project (displayed in the **Project** field) as a flat and alphabetically organized list of the project activities and attributes.

The **Activity Sheet** log window right-hand pane displays the following tabs:

- **General**
- **Assignments**
- **Audit Log**

You can use the toolbar options in the **Activity Sheet** log window to:

- Assign a rate sheet to the project
- View, create, edit, and manage log views
- Filter by project
- Switch between schedule types (current or baseline) of the project

The following explains each toolbar option:

Actions	The **Actions** drop-down list has the following options: ▸ **Permissions** This option is not applicable to the System Activity Sheet. This option is available when you select a single or multiple activity sheets (manual or custom). The functionality is the same as when the Permissions option is selected using the *gear menu* ( ) option. You can assign permissions to multiple activity sheets that are created manually from the log. his includes the sheets created using import from MPP or P6 XML files. ▸ **Export CSV** To export information from the tabs in a CSV (Comma Separated Value) file. ▸ Select the Activities option to export the WBS and activity attributes data in the General tab. ▸ Select the Assignments option to export the assignment information in the Assignments tab. ▸ Select the Audit Log option to export the activity-related events in the Audit Log tab. Audit Log option (in Export CSV) exports the project-related events which also consists of Activity-related events. The Audit Log option is not the same as Audit Log tab. The Audit log tab is specific only to the selected Activity-related events. ▸ **Update Data** Use the options to export the activities and assignments column structure in CSV templates, and then import the modified templates to make changes in editable fields. ▸ Select the Activities, Export CSV Template option to export the activity attributes data in the sheet. ▸ Select the Activities, Import CSV Template option to import the modified CSV file and update activity data in the sheet. ▸ Select the Assignments, Export CSV Template option to export the assignments data in the sheet. ▸ Select the Assignments, Import CSV Template option to import the modified CSV file and update assignment data in the sheet. ▸ **Assign CBS** To assign CBS to multiple activities at a time.

View	The **View** option enables you to switch between default and custom log views. The **View** drop-down list has the following options: ▸ **All** The default option displays all columns in the log. ▸ **Create New View** Use this option to create a custom view. Custom views appear in the View list. ▸ **Manage Views** Use this option to reorder, show/hide views, and delete custom views.
Refresh	When a different rate sheet is assigned to roles and resources or when recost is performed, values in the sheet are not automatically updated. Click **Refresh** to display updated data in the fields.
Edit View	Select or Hide columns, apply filters, group and sort by available fields. Save custom views. ▸ In the **Columns** tab, add/remove/reorder columns in the default view. You can save as a custom view. ▸ In the **Filter** tab, add conditions to filter the results of a column. ▸ In the **Group By** tab, create or modify groups using column elements. For example, activity status. ▸ In the **Sort By** tab, define the sorting order (Ascending or Descending) of columns.
Search	To search for related items in the database. You can filter the data based on cost type and rate type.
Find on Page	To filter results displayed on the screen. In any column, begin typing in the field below the header to trigger results.

Below the toolbar options, the following options are available:

Project	Enable you to select a project and display the project activities on the **Activity Sheet** log window., and the tabs on the right-hand pane are dynamically updated with the corresponding items
Switch to Baseline Project	A P6 project can be a current schedule project or a baseline schedule project. This is a toggle key that provides access to the current or baseline project types.

To view the **Activity Spread** for an activity sheet:

1) Select an activity in the **Activity Sheet** log window.
2) Click the *gear menu* ( ) and select **View Activity Spread** to open the **Activity Spread** window.

3) Select your options from the following fields to display the results on the **Activity Spread** window.
   - **Type**
   - **Frequency**
   - **Cost Type**
   - **Rate Type**

To assign CBS to an activity sheet:

1) Select an activity in the **Activity Sheet** log window.
2) Click the *gear menu* ( ) and select **Assign CBS** to open the **Assign CBS** window (cost code picker).
3) Click the drop-down arrow to select the CBS Code from the list.
4) Click the select icon (next to the drop-down arrow) to open the **CBS Picker** log window.
5) Click to select one or multiple CBS codes from the list and click **Select** to return to the **Assign CBS** window.
6) Click to select the **Apply to all Assignments in the Activity**. This enables you to apply the cost code to only the activity or all assignments of the activity.
7) Click **OK**.

The **Activity Sheet** log window has the following columns, in the default layout:

- Activity ID
- Activity Name
- Activity Status
- Activity Type
- Activity % Complete
- Actual Start
- Actual Finish
- Actual Duration
- Actual Total Cost
- At Completion Duration
- At Completion Total Cost
- Planned Start
- Planned Finish
- Planned Duration
- Planned Total Cost
- Start
- Finish
- Remaining Early Finish
- Remaining Early Start
- Remaining Duration
- WBS Code
- WBS Name

- WBS Path
- Remaining Total Cost
- Primary Constraint
- Secondary Constraint

> **Note**: Use can change the default by creating and managing custom views in the View drop-down list.

The **Activity Sheet** log window displays the activity sheet properties on the right-hand pane within the following tabs:

- **General**
- **Assignments**
- **Audit Log**

Tip: Click the expand icon, in the right pane, to better view the tab details.

The following explains each tab in details. Each tab provides information corresponding to activity attributes, assignments, and events respectively:

The **General** tab displays the attributes for the selected activity in groups:

- WBS Attributes
- Activity Attributes (General)
- Activity Attributes (Schedule)
- Activity Attributes (Units)
- Activity Attributes (Cost)
- Activity Attributes (Earned Value)

See ***Attributes*** (on page 229) for details.

The **Assignments** tab displays the resources and roles assigned to the activity selected in the main grid. The layout displays the following columns:

- Resource Name
- Role Name
- Rate Source
- CBS Code
- Planned Units
- Actual Units
- Remaining Units
- At Completion Units
- Price per Unit
- Planned Cost
- Actual Cost
- Remaining Cost
- At Completion Cost

Assign Price/Unit

To override the price or unit. The Planning and Actuals will be fetched from corresponding Rate Sheet or Overridden Price/Unit from override action. Whenever a different Rate is assigned to a Resource, system will display the following alert message: Perform Recost to see updated costs.

The *gear menu* ( ) in the **Assignments** tab are:

- **View Spread**
- **Assign CBS**
- **Assign Rate Source**

Select **View Spread** to view the spread of costs or units for a role or resource assignment in a separate pop-up window.

The *gear menu* ( ) in the **Assignments** tab vary depending on the project type. There is only one option for Cost-loaded and Schedule-based projects:

- View Assignment Spread

The following options are available for the Resource-loaded projects:

- View Assignment Spread
- Assign CBS
- Assign Rate Source

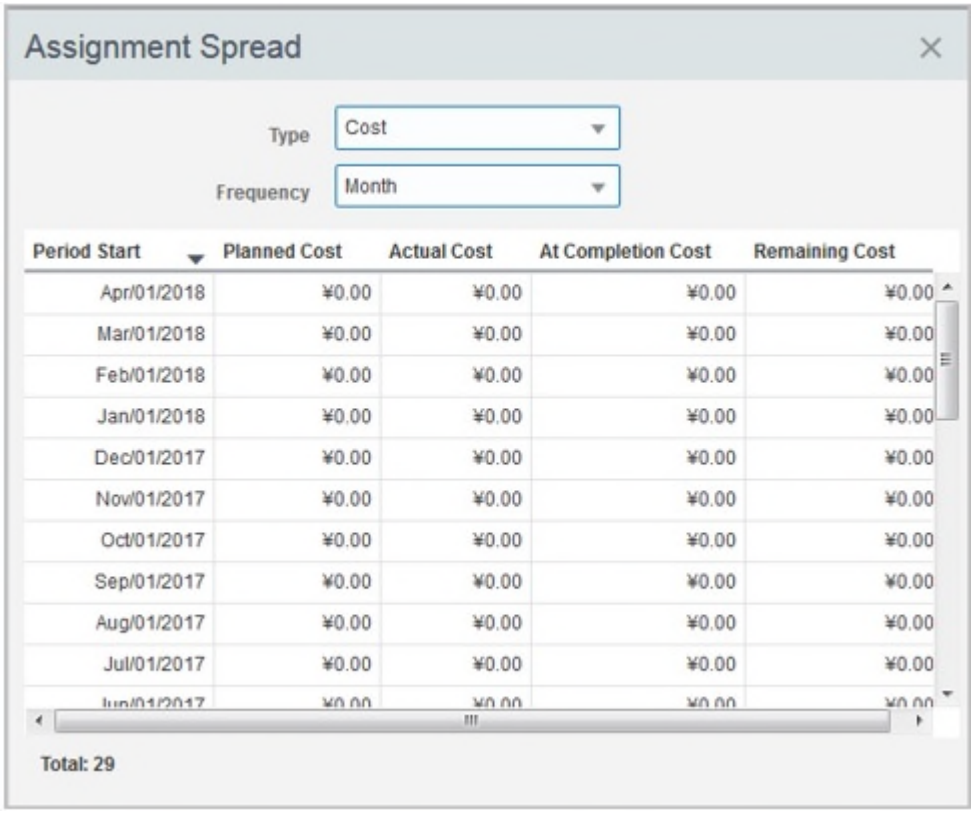
In the **Type** list, select Cost or Units. Column headings change accordingly.

In the **Frequency** list, change the granularity level of the spread to Week, Month, or Year.

In the **Assignment Spread** dialog, view values in the following columns:

- Period Start
- Planned Cost (or Units)
- Actual Cost (or Units)
- At Completion Cost (or Units)

- Remaining Cost (or Units)



Use this option to assign a CBS code to a resource and/or role. Select **Assign CBS** and select a code in the **CBS** field, and then click **OK**.

Select **Assign Rate Source** to assign a rate source to an assignment.

The **Rate Source** drop-down list has the following options:

- Resource (default)

- Role
- Override

Select an option.

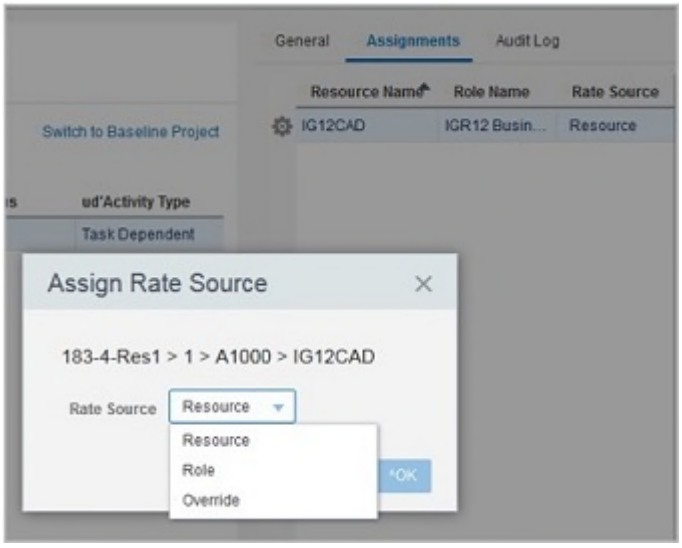
Unifier updates the rates for price/unit of each assignment after retrieving them from the corresponding source fields in the rate sheets as follows:

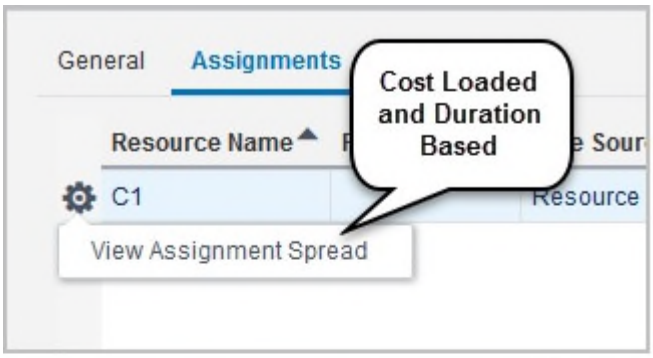
- If the rate source is **Resource**, the data is fetched from the Resource Rate Sheet.
- If the rate source is **Role**, the data is fetched from the Role Rate Sheet.
- If the rate source is **Override**, the Price/Unit data is not refreshed.

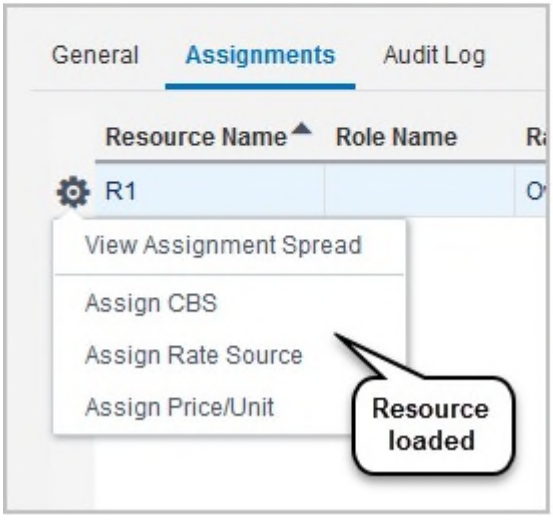
  In this case, you must manually specify the value. To do so, click **Rate Source** and follow the prompts. The Assign Rate Source is only applicable for Resource-loaded projects.
  - Select **Override** and click **OK**.
  - The *gear menu* ( ) displays an additional option for **Override**. Click the *gear menu* ( ) and select **Assign Price/Unit**.
  - Modify the existing rate and click **OK**.

When finished, click **OK**.

Unifier rolls up the assignment values to calculate values at the activity level.



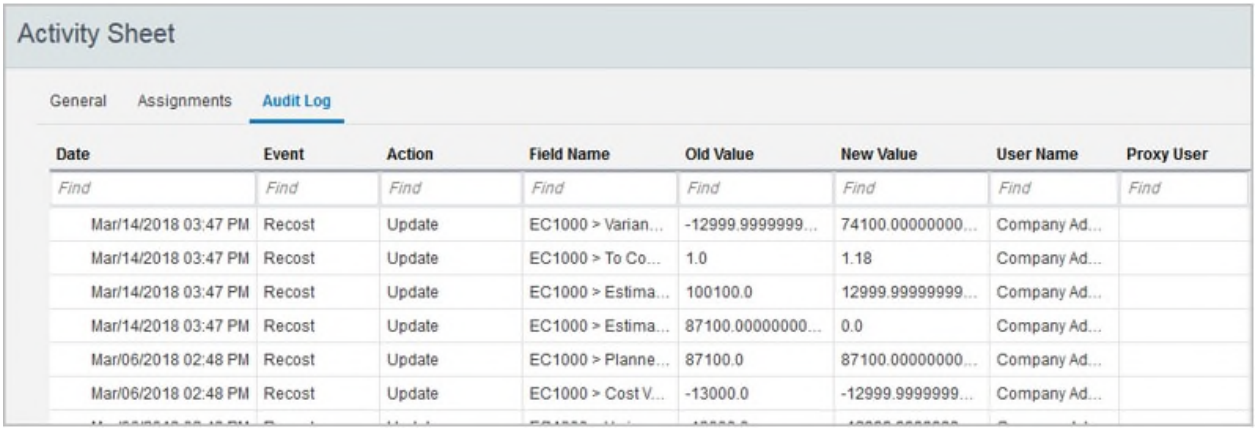




The **Audit Log** tab displays the audit details at the activity level in the following columns:

- Date
- Event

- Action
- Field Name
- Old Value
- New Value
- User Name
- Proxy User



Activity Sheet Default

When you create a new activity sheet, after defining the activity sheet properties (you can also populated the newly created activity sheet by way of opening an existing activity in the log), Unifier creates a default activity sheet.

> **Note**: In the process explained above, the Project Start Date and Project Finish Date fields will not be seen in Unifier 20.12, but the fields will be made available in later releases.

In the newly created activity sheet:

- **Project Start Date**

  Displays the earliest date of all the activities. In the case of a blank activity sheet, the scheduled start date will be the project start date.
- **Project End Date**

  Displays the latest date of all the activities on the activity sheet. In the case of a blank activity sheet, the scheduled start date will be the project end or finish date.

The following explains the first five columns displayed in a created activity sheet, in the grid section of the activity sheet:

- **Row Number**

  Displays the row number and errors, if any. This is a read-only column, with a sequential number starting from 1 (one).
- **Activity ID**

Displays the activity ID for each added activity sheet. Unifier uses the default sequence number specified in activity sheet properties to populate the activity ID. You can edit the column and enter custom activity ID for a selected activity sheet. This is a required field and alphanumeric characters are allowed, only. Verify that no special characters are entered when defining the activity ID.

- **Activity Name**

  Displays the name of the activity sheet. This is a required field and alphanumeric characters are allowed.

> **Note**: The attachments and notes features will not be seen in the activity sheet in Unifier 20.12, but the features will be made available in later releases.

A default lock will be seen after the first three columns.

- **Attachments**

  Displays the attachment icon. You can add attachments to the activity sheet in the Attachments tab (in the right pane or dock bottom pane).

- **Notes**

  Displays the notes icon. You can add notes for the selected activity sheet in the Notes tab. The functionality will be the same as in the CBS rows. This functionality will allow you to enter the notes. For example, you can use notes to specify the reasons for the change of the activity sheet dates or duration from the initial baseline.

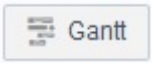
All the other columns are displayed in the order defined in uDesigner, followed by the Notes column. If there is no attribute form defined in uDesigner (for manual activity sheets), then all of the P6 data elements (uuu_P6 data elements) are displayed as columns.

Activity Sheet Default (Toolbar Options)

The following explains the toolbar options in a created activity sheet, in default view:

Toolbar	Description
Add	To add a new row. The row will have the Activity ID field value pre-populated with the sequence number specified in the activity sheet properties. The Activity Name field is displayed as required and other required columns will be highlighted with red triangle, on the right-hand side corner. Upon selecting Save All, the required fields will show as errors in the first column (similar to manage rows in the cost sheet). ▸ If you select an activity and click **Add**, then the new activity row will be created after the selected ▸ activity. ▸ If you do not select an activity and click **Add**, then the new activity row will be created after the selected ▸ activity. ▸ If the user do not select any activity, then the new activity row will be created at the very end. **Note**: The activity sheet shows the flat list of activities. Any user with edit permissions would be able to add and update the activities to the activity sheet.
Schedule	To enable the scheduling in the activity sheet, once you add the activities, and updating the activity schedules like planned, actual dates, duration, and so forth. It also enables you to remove the activities. All of the dependent activities will be rescheduled based on the data date specified in the schedule. If you select this option in a blank sheet, then Unifier displays this message: There are no activities in the sheet to be scheduled.
View	Same as in the System Activity Sheet, the **View** drop-down list displays the system-defined view 'Default' and 'WBS View', by default. You can create and manage views in the activity sheet. ▸ **Default** ▸ **Create New View** ▸ **Manage Views** You can add activities and change column structure in the Default view, also. Similar to the other activity sheets, the data creation (both rows and columns) will be available in the default view.
Edit View Settings	To edit the user-defined views.

Toolbar	Description
Actions	If you (the user) have at least Edit Data permission for manual activity sheet, then you can use the **Actions** option and perform the following: ▸ **Schedule** ▸ **Create Baseline** ▸ **Update Baseline** ▸ **Baseline Comparison** ▸ **Link Selected Activities** ▸ **Unlink Selected Activities** See the "Actions Option" topic, below, for more details.
Refresh	All of the existing export and import options available for CBS Code activities and assignments will be seen in the **Menu Options**. To refresh the contents of the activity Sheet. **Note**: If there are unsaved changes in the sheet, Unifier displays this message: You have unsaved changes in the sheet. These will be lost on refresh. Do you want to proceed? If you select 'Yes', then the activity sheet should be refreshed; otherwise, refreshing of the activity sheet will not happen.
Print	The following printing options are available: ▸ **Print** ▸ **Export to CSV** ▸ **Export to Excel**
Find on Page	To conduct search in the activities and other attributes within the activity sheet.
Search	To search the activities based on search parameters that are defined in uDesigner. **Note**: If there are unsaved changes in the activity sheet and you click 'Search', the search result will include the unsaved rows.
Menu Options (the three horizontal line icon with down-arrow)	There will be no option for updating the CBS Code for Activities or Assignments. Any Activity Sheet defined in project, where the logged user have at least edit data permission to the sheet, has the following options: ▸ **Export > Activity Details** ▸ **Export > All Activities** ▸ **Export > All Assignments** ▸ **Import > Activity Details** ▸ **CSV Import of Activities** ▸ **View History Log** See the "**Menu Options**" topic, below, for more details.

Toolbar	Description
Gantt 	Once you click Gantt, the following toolbar options become available: ▸ **Grid** ▸ **Focus Activity** ▸ **Baseline Comparison** Enables you to see the baseline bars along with current activities. The relationship between the current activities will be seen, also. ▸ **Critical Path** The Critical Path calculation follows a standard mathematical algorithm known as the Critical Path Method (CPM). CPM calculates the starting and ending times for each activity. CPM determines which activities are critical (uuu_float = 0) to the completion of the project (called Critical Path) and reevaluates activities with uuu_float values. The tooltip for the current activities will show the current and baseline dates, and the variance in number of days between the baseline start and start dates. The **Show** drop-down field will be editable once you select Gantt from the toolbar. This drop-down has the following options: ▸ **Default Gantt** ▸ **Critical Path** ▸ **Baseline Comparison** Dates and Numeric values displayed in tool-tip are based on the user preference set at company-level. For more details about Gantt view, see "Gantt View" below.
Switch to Current Project View	Enables you to see the current project.
Switch to Baseline Project View	Enables you to: ▸ See the baseline for the project. ▸ Add activity and change the activity schedule.

Actions Option

Depending on your permissions, the **Actions** option enables you to:

Option	Description

Schedule	To schedule the activities based on the data date. You update the progress of the activity both: ▸ At the activity-level in the sheet grid or in the **General** tab of activity. ▸ In the **Assignments** tab. The **Schedule** option, in the Activity Sheet, is similar to the scheduling option in P6. When you click **Schedule**, the **Schedule** window opens which enables you to select a date (from the Data Date field) and click **Schedule Now** to initiate the scheduling process. You can take any actions within the activity sheet, but the activity sheet data will be refreshed after schedule completion. You can use the **History Log** (available under **Menu** option) to view a lot of the actions that have been performed on the activity sheet, as a part of scheduling. The following actions will be performed as a part of rescheduling: - If the activity start, finish, duration, calendar, or predecessor changes, then Unifier reschedules the successor activities (based on the data date). - If the activity is in progress, then Unifier calculates the remaining duration of the activity (based on the data date) and recalculates the successor activities start and finish dates (if not started). Unifier also calculates the remaining duration for all incomplete activities (based on the data date). - Unifier moves the activities, or tasks, that are not finished (based on the data date). This happens even if the activities, or tasks, expected finish date is earlier than the data date. Unifier retains the relationship logi for the dependent activities, for example, Unifier recalculates the start and finish dates for the successor activities. - Unifier retains the schedule logic. Unifier moves the activities that are in progress and activities that are incomplete (with finish date earlier than the data date) to the data date which makes the activities the first tasks that must be completed. This also moves the start date of the successor activities to a future date, based on the Lead/Lag time and relationship. - Unifier recalculates the Float value for all of the activities, according to the schedule. - Unifier recalculates the Critical Path based on the changes in the duration or dates of the activities. The Critical Path is determined by the activities that contain a Total Float of zero. Once Resources or Roles have been assigned to activities you must: - Enter the progress and then recalculate the assignment costs. - Use Schedule to calculate both the Remaining units or costs as well as the At Completion units or costs. Unifier calculates all of the Remaining units or costs as well as the At Completion units or costs for the activities, based on the actuals that were entered for the activities that have progress update. Unifier calculates all of the costs, based on the new Resources or Roles assigned to the activities or based on the update of planned and actual units at the assignment level.

Create Baseline	Used for creating the baseline data for the project schedule defined in the Activity Sheet. Once you create the baseline, the **Update Baseline** option appears in the **Actions** drop-down allowing you to update the baseline view with the latest data and date. In the Project Baseline view, the window title will show the name that is given while creating the baseline, and the baseline creation date will be shown on the right-hand corner. This date retains the date preference set for the logged in user. Within the Project Baseline view all the fields are read-only and contain the current project data including CBS and WBS assignments. You can view the activity sheet details in the **General** tab. The creation date will be populated with the current date. The baseline name will be defaulted to the project schedule name.
Update Baseline	Used for updating the baseline data for the project schedule defined in the activity sheet. This option becomes available once you create a baseline. If there are no baselines, the Update Baseline option will be replaced by **Create Baseline**. You can navigate to the Project Baseline view by clicking the **Switch to Project Baseline** view link (this function is similar to the system activity sheet, once the baseline is created). You can export all the activities using the **Menu Options** > **Export** > **All Activities**.
Baseline Comparison	To compare the current project dates and costs with the baseline dates and costs and highlight the cells where: ▸ The activity progress is not as expected, or ▸ The activities are delayed (comparing to the baseline). The link to view the baseline data will be seen only when the baseline is created successfully. You can view the schedule comparison of current project data with baseline data by way of the **Menu** option > **Baseline Comparison**. When you click **Baseline Comparison**, the **Baseline and Current Project Comparison** window opens. This window displays all of the activities comparing the schedules based planned, actual, remaining dates, and other dates. Variance will show the number of days the activity has been delayed, and the number of days the activity has started ahead or on time. By default, all of the columns within the current activity sheet will be compared with the baseline. This is shown as **Default** view. The **View** option enables you to filter the columns that can be seen. You can filter the columns that can be seen in the **Baseline and Current Project Comparison** window by navigating to **Views** and create a new view and filtering the columns displayed.

Link Selected Activities	To link multiple activity sheets. The selected activity sheets will be linked with the default relationship (Finish-to-Start) if no relationship exists. See the "Dependencies Tab" topic for more details.
Unlink Selected Activities	To unlink multiple activity sheets.

Gantt View

The Activity Sheet in Unifier supports the manual Activity Sheets in order to define project schedules. To be able to view the activities and the relationship between the activities and their associated resources that define the project schedule, Unifier provides the option to view the **Gantt** chart (bar chart) in the manual Activity Sheets.

The **Gantt** chart provides a representation all of the activities of the project in a time-line view, the amount of time each activity is expected to take, the time-frame in which an individual task has to be completed, and the relationship between various activities.

The Gantt chart can be launched from both the System Activity Sheet and the Manual Activity Sheet (the Gantt option on the toolbar).

Once you click **Gantt**, the right-pane will show the Gantt representation of the project schedules, and you will be able to view and perform the following functions:

- Show project schedules activities in a Gantt mode.
- Zoom in or zoom out to view the details of the activities and links.
- Show dependencies between activities (predecessors and so forth).
- Show assigned resources by category.
- Show percent (%) complete for each activity to monitor the progress of the activities.
- Allow changing the activity durations by dragging the bars.
- Allow moving activities from one time-frame to another (modifying start and end dates at the same time).
- Allow critical path calculation and viewing activities in the critical path.
- Show tooltips for the activity, link, and milestones.

Increasing duration of activities and moving activities

In Gantt view, you can move the activities (tasks) that do not start ahead of the schedule. The selected activity start and finish dates are updated along with duration. When you select the schedule option in the toolbar, the successor activities start and finish date will be updated along with the current updated activity according to the new data date, and the Gantt view will reflect the changes in activity start and finish dates. The tooltip will show the updated start and finish dates, duration, and so forth upon selecting the activities.

You can increase or decrease the duration of the activity using drag-and-drop of the selected activity. In this scenario, the duration and the Finish Date values will be updated accordingly, for the selected activity.

The following shows the basic keyboard shortcuts for moving activities:

- Tab: Tab to the Gantt view and use the arrow keys to navigate to the task you want to move. You can select multiple tasks and move them together.
- Ctrl + m: Click "Ctrl + m" to enter into the move mode. Use the left arrow and the right arrow keys to move the activities (tasks) horizontally, and use the up arrow and so keys to move the task(s) to different rows.
- Enter: Enter to finalize the move and exit move mode, or Esc to cancel and exit move mode

To perform task resize, use:

- Alt + s
- Alt + e

Menu Options

Depending on your permissions, the **Menu Options** option enables you to:

Option	Description
Export > **Activity Details**	To export the CSV template with activity attributes defined in uDesigner. All of the columns that are seen in the Activity Sheet will be exported. The order of columns seen in the CSV template would be the same as in the activity sheet. The Required columns will show additional required symbol in the CSV template. All of the existing activities details will be exported.
Export > **All Activities**	To include all of the activities.
Export > **All Assignments**	To include all of the assignments.
Import > **Activity Details**	To import the activities and add new activities if activities do not exist. See the "About System Activity Sheet" topic for more details. When you select this option, the existing activities in the sheet will be exported to CSV template.

CSV Import of Activities	The Activity ID is generated using the activity sequence numbering setup at properties level, if no value is provided in the Activity ID column. You can enter only alphanumeric characters in the Activity ID column. You cannot leave any of the required field in an activity attributes form blank. If the CSV file imported does not have data for all of the required fields in the activity attributes form, then import will fail. Only columns that are editable can be updated, for the existing activities. Changes to read-only columns in the CSV file will be ignored. The WBS Code and CBS Code for the activities can be added for new activities. For the existing activities, the WBS Code and CBS Code for the activities can be updated. CSV restrictions: The data elements that are added in the Integration tab must match the names, or labels, in the exported CSV template. All of the data elements that are defined in the Integration tab will be seen as column headers in the CSV template. The order of the column headers are as they appear in the Integration tab. If no integration interface is defined, then all of the uuu_P6 pre-defined columns will be seen in the CSV template. In this case, the Activity ID and Activity Name will be shown as the first two columns, followed by other uuu_P6 data elements. The existing rows (activities) must be in the same order as currently seen in the sheet. The Activity ID and Activity Name columns are shown as required in the exported CSV template, along with other required fields.
View History Log	To open the **History Log** window. This window contains the following toolbar options: ▸ **Refresh** ▸ **Find on Page** This window contains the following columns: ▸ **Action** ▸ **Requestor** ▸ **Initiated On** ▸ **Start Date** ▸ **End Date** ▸ **Status**

Activity Sheet Adding, Copying, Updating, and Deleting

For each activity sheet that you add into the Activity Sheet log, the following columns appear:

Column	Description
ID <label of the uuu_P6ActivityID>	pre-populated with the sequence number provided in the activity sheet properties. It should be a unique value. User should be able to edit the Activity ID or Activity Name columns data. Note: The task icon should be populated in the ID column for Activity ID. The color of the task icon should be blue (code :#359DFC) for 'Not Started' activities. Similarly the color of task icon will be orange (code : # FA9C45) for 'In Progress' activities and green (code: #02D824) for 'Completed' activities.
Name <label of the uuu_P6ActivityName>	This should show the column as required and user have to specify the activity name. All the alpha numeric characters are allowed for the activity name.
Start Date <label of uuu_P6StartDate>	populated with the project start date by default. User can edit the date by selecting date picker in the column. User can edit the date. For Activities which are 'In Progress' and 'Completed' , Start Date will be Actual Start Date (uuu_P6ActualStart). For any activities which are created newly once the project is scheduled on certain data date. The new activities Start Date will be by default the data date. User can edit the date before or later but cannot move the date before project start date. Upon scheduling if the activity is still not started as per the 'Data Date' then it will be rescheduled to data date.
Finish Date <label of uuu_P6FinishDate>	populated with the project start date by default for Activities with status 'Not Started'. User can edit the date. When the sheet is not scheduled then the Data Date will be the project start date. For any activity created after the sheet is scheduled on certain data date then finish date will be defaulted to start date which is the 'Data Date'. For Activities which are 'In Progress' and 'Completed' , Finish Date will be the date from Data Date plus duration. When the sheet is not scheduled then the Data Date will be the project start date.
Duration <label of uuu_P6Duration>	populated with duration as 1 day by default for regular Tasks/Activities and duration as 0 for the milestone activity. Duration will be updated by means of finish date changes or user can manually update the duration column. Finish date will be calculated accordingly.
Activity Status <label of uuu_P6ActivityStatus>	This will be default with status 'Not Started' and Activity icon seen before the activity ID will be in blue color for not started activities. Explained the color codes in the above case 1) for ID. Activity Status will be changed to 'In Progress' or 'Completed' based on Activity actual start date and finish dates and the color of the Activity ID will be changed accordingly.

Activity Type	populated with default type i.e., 'Task Dependent'. User can select other values such as 'Start Milestone' which will automatically the task to milestone with 0 duration days and 'Resource Dependent' which will honor the calendars of the associated resources/roles. Resource Dependent activities adjust to resource calendars when resources are assigned.
Planned Start Date <label of uuu_P6Planned Start>	Should be defaulted with Start Date(uuu_P6Start) for the activities with status 'Not Started'. When Scheduled using project scheduler all the Start and Planned Start Dates will move to the Current Data Date if they are past dates.
Planned Finish Date <label of uuu_P6Planned Finish>	Should be defaulted with Finish Date(uuu_P6Finish) for the activities with status 'Not Started'. When Scheduled using project scheduler all the Start and Planned Finish Date will be planned start plus duration. The task dependent activities base their duration on the working and non-working days of the activity calendar, whereas, Resource Dependent activities base their duration on the working and non-working days of the assigned resource's calendar. When multiple resources are assigned then the Finish Date of the activity will be based on the time required by the last resource it will take to finish the same task, based on the resource calendar. You can edit the duration column in the sheet itself. This field will allow only integer type data with no negative values. Note: Calendar selected for each activity will be used to calculate finish date.
Milestone	When the activity type is selected as 'Milestone' then that activity will be shown as milestone activity. The duration of milestone activity is always 0 and user cannot update the duration for milestone activity. The Activity Status for milestone type activity can have only two values - 'Not Started' and 'Completed' . Default value will be 'Not Started'.

The values for the **Start Date**, **Finish Date**, and **Duration** columns are controlled by an automatic formula. A change to duration changes finish. A change to Finish changes Duration. A change to Start changes Finish. These fields also control the display on the Gantt chart. Their values can also change when the user manipulates the activity bar in the Gantt chart.

Similarly the activity status will be changed into 'In Progress' if the actual start date is entered . In order to edit the activity %complete (progress) user has enter the actual start date or user should be able edit activity status and when changed to in progress then actual start date should be populated with current date and %complete will become editable.

Similarly when Activity Status is changed to 'Completed' then actual start and finish date will populated with current date and % complete will be shown as 100%.

You cannot change the status to 'Not Started' if the actual start date and % complete exists (Any actual values exists). An error <E1> (Actual values entered must be removed in order to change the Activity Status to Not Started.) will be thrown and the status will remain as is before updating.

Also when the actual finish date is entered the activity status will be changed to 'Completed' or when activity status is changed to completed then actual finish date will be updated.

Activity Sheet Gear Menu

The following explains the *gear menu* ( ) options when you select a single activity.

Note: You can add, duplicate, copy-paste, and delete the activities by using the *gear menu* ( ). Whenever a new activity is created by default, the Activity ID would be populated and you need to enter all of the other mandatory data (such as Name and any other required fields) in order to be able to save the activity details.

Add Activity	This option should not be available if you select more than one activity row at a time. When you select this *gear menu* ( ), while highlighting an activity, a new row will be inserted below the selected activity. The **Activity ID** will have a generated sequence number, and you have to enter the required fields to save the newly created activity row. The **Cancel** and **Save** options, in the sheet, will be enabled.
Duplicate	You can select an activity and click duplicate to create a new activity with same information. The new activity will be created underneath the selected activity. All of the information related to selected activity (such as dependencies, WBS, and assignments) will be copied into the new activity. The **Activity ID** will have a generated sequence number, as specified in properties, and you can update the activity information.
Add Milestone	Use this option to create a new activity which is of activity type 'Start Milestone'. The duration of this activity will be always 0. If you change the **Change Start Date**, then the **Finish Date** will also be updated to the same date as the **Start Date** and vice versa. The **Duration** field cannot be updated, and it is always read-only.
Delete	You can select one or more activities and click **Delete** to remove the selected activities. A confirmation message will be displayed and if you select **Yes**, then the selected activities along with dependencies, assignments, and WBS will be removed.

Copy	When you highlight the activities and selects **Copy** from the *gear menu* ( ) option, the **Paste** *gear menu* ( ) option will become available. Selecting **Copy** copies all of the activities along with dependencies, assignments, WBS, and actuals, for the selected activities. The other *gear menu* ( ) options will be seen after you select **Copy**.
Paste	This *gear menu* ( ) option will be seen only if the activities are copied or cut. When you select **Paste**, a confirmation message will be displayed and if you select **Yes**, then all of the activities along with dependencies, assignments, WBS, and actuals will be copied into the destination row selected.

Activity Sheet Start Date, Finish Date, and Duration

The **Start Date**, **Finish Date**, and **Duration** are controlled by an automatic formula.

- A change to duration changes the finish date.
- A change to finish date changes the duration.
- A change to the start date changes the finish date.

The **Start Date**, **Finish Date**, and **Duration** fields also control the display of the task bars in the Gantt chart view. The **Start Date**, **Finish Date**, and **Duration** values can also change when you manipulate the activity bar in the Gantt chart.

If you clear the **Start Date** or **Finish Date**, then Unifier displays an alert notifying you that the fields are required. All of the date columns (uuu_P6Start ,uuu_P6Finish, and uuu_P6Duration) are required columns in the activity sheet. You cannot reset the **Start Date** or **Finish Date**, and Unifier displays an error message if you attempt to do so.

- If you enter a **Start Date** that is earlier than the **Project Schedule Start Date** (specified in the activity sheet properties), then Unifier displays the following message: "<uuu_P6Start> cannot be earlier than Project Schedule Start Date."
- If you update the Finish Date <uuu_P6Finish> with a date earlier than <uuu_P6Start>, then Unifier displays the following message: "<uuu_P6Finish> cannot be earlier than <uuu_P6Start>."

The **Duration** <uuu_P6Duration> and the **Finish Date** <uuu_P6Finish> values will change based on the activity sheet calendar selected. The **Activity Calendar** drop-down field will show all of the calendars that are defined at the project-level (which are located, by default, under **Schedule Manager** > **Custom Calendars**).

The **Activity Status** (uuu_P6ActivityStatus) value will be "Not Started," by default

The **Start Date** and the **Finish Date** values will show the **Project Schedule Start Date**, specified in properties, by default.

The **Activity Type** (uuu_P6ActivityType) value will be "Task Dependent," by default. You can update the task to "Resource Dependent' or "Milestone."

Activity Sheet and CSV Template

In this section, the following topics are covered:

- CSV Template for Activity Details
- Using CSV Import to Update Activities
- New and Existing Activities Through CSV Import
- New "In Progress" and "Completed" Activities
- Update Activities
- Add Start Milestone Activity
- Update Existing Activity (Not Started) to Start Milestone
- Update Existing Activity (In Progress or Completed) to Start Milestone

CSV Template for Activity Details

When you export the CSV template file (using **Export** > **Activity Details**), the order of the columns in the CSV template matches the order of the data elements that are added in the integration phase. You can:

- Add new activities by specifying the details for each row.
- Enter data for all editable data. The values entered in the CSV file will be ignored if that data element is a formula column in the sheet.
- For the 20.12 release of the Unifier the CSV import does not allow activities with dependencies and assignments.

During the CSV import (for creating new activities), Unifier performs the following validations:

- Required field validations will be shown, except for the Activity ID which uses the activity sequence specified in sheet properties. New rows will automatically generate the next sequence and show it as a new Activity ID.
- Activity Name is shown as required in the exported CSV template. If you do not enter the Activity Name, then the "required field" error message will be displayed.
- Other than the Activity Name (uuu_P6ActivityName), the uuu_P6 data elements which are marked as required in the design will not show as required in the exported CSV template, if there are no default values.
- If you enter the Activity ID value in the CSV template, then this input will have high priority. A new row will be created using the Activity ID specified in the CSV template. The Activity ID value column allows alphanumeric values only in the input CSV file.
- If no value is entered, then the Activity ID will take the next auto-sequence number that is generated. If you provide the Activity ID, then a new activity is created with the value that you enter (provided that there is no activity with the same ID in the Activity Sheet).
- If not available in the input CSV file, then the default values will be used for the following columns:
  - Start Date
  - Finish Dates
  - Duration
  - Activity Status
  - Activity Type

    - Calendar
- If the user did not provide any value for these columns in the CSV file, then by default the value for the:
    - Activity Status (uuu_P6ActivityStatus) will be: Not Started.
    - Start Date will be the project schedule start date specified in the properties.
    - Finish Date will be the project schedule start date specified in the properties.
- Activity Calendar (uuu_P6ActivityCalendar) will be the default calendar, as the calendar selected in the activity sheet properties window. If the calendar is specified in the CSV file, then Unifier validates the calendar name to ensure that it is a custom calendar or a company calendar.
- You must specify the entire path for the WBS Picker (uuu_cmwbs_picker) and CBS Picker (bitemID) columns in the input CSV file. Check for valid WBS Code and CBS Code when updating existing activities or importing new activities.
- All of the required fields must be entered for the CSV import to be successful.

You will encounter error messages when creating new activities by way of CSV import if:

- You enter a Start Date (uuu_P6Start) that is earlier than the Schedule Start Date (act_sch_start_date).
- You enter a Start Date (uuu_P6Start) that is later than the Finish Date (uuu_P6Finish), and vice versa.
- You enter an Actual Finish Date (uuu_P6ActualFinish) that is earlier than the Actual Start date (uuu_P6ActualStart).
- The above date-related errors will be displayed when you enter input values for the following date combinations:
- uuu_P6PlannedStart, uuu_P6PlannedFinish, and uuu_P6PlannedDuration
- uuu_P6Start, uuu_P6Finish, and uuu_P6Duration
- uuu_P6RemainingDuration, uuu_P6RemainingEarlyFinish, and uuu_P6RemainingEarlyStart
- You enter the Actual Start Date (uuu_P6ActualStart) that is after the current date.
- If the Start Date (uuu_P6Start) is provided in the input CSV file, but the Finish Date (uuu_P6Finish) is not provided in the input CSV file.
- If the Finish Date (uuu_P6Finish) is provided in the input CSV file, but the Start Date (uuu_P6Start) is not provided in the input CSV file.
- You enter a CBS Code that is currently inactive or does not exist in the Cost Sheet.
- You enter a WBS Code that is currently inactive or does not exist in the Project WBS Sheet.
- The uuu_P6Start and uuu_p6Finish dates are different for the milestone-type activity.

You will encounter the following validations when creating new activities by way of CSV import:

- The Start(uuu_P6Start) alone is provided with the Activity Name. In this case, the activity is created with default duration 1 and finish (uuu_P6Finish) same as uuu_P6Start.
- The Duration (uuu_P6Duration) and Start (uuu_P6Start) are provided. In this case, the duration will be calculated based on Finish Date and uuu_activity_calendar.
- The Start (uuu_P6Start) and Finish (uuu_P6Finish) are provided. In this case, the uuu_P6Duration will be calculated accordingly.
- When the Start, Finish, and Duration values are provided. In this case, the Duration will be calculated based on Start and Finish values.

- When you enter Actual Finish Date (uuu_P6ActualFinish) without Actual Start Date (uuu_P6ActualStart). In this case, after the CSV import, the uu_P6ActualStart and uuu_P6ActualFinish will have the same date, and the uuu_P6ActivityStatus
- will be shown as: Completed

> **Note**: The error validation applies to all dates in the input CSV file.

- When you enter Activity Percent Complete (uuu_P6PercentComplete), you can enter a value for Performance Percent Complete (uuu_P6PerfPercComplete). In this case, the value must be between 0 and 100 (zero and one hundred).
- The value of the Duration (uuu_P6Duration) must be entered in the number of days, in the CSV file. You cannot enter a negative or decimal number.
- You can enter the CBS Code, or WBS Code, for the new activities. When entering the CBS Code, or WBS Code, you must specify the entire path.
- When you enter the Activity Type as "Start Milestone" (for the new activities in the input CSV file), the sheet shows the activity as milestone-type with uuu_P6Start and uuu_P6Finish shows the same date and duration as 0, after a successful import.
- You only enter the uuu_P6Start in the input CSV file for the milestone-type activity.

Using CSV Import to Update Activities

The editable data elements in the activities that exist in the sheet can be updated by using the CSV import, including:

- Activity Name (uuu_P6ActivityName)
- Start Date (uuu_P6Start)
- Finish Date (uuu_P6Finish)
- Duration (uuu_P6Duration)
- Activity Status (uuu_P6ActivityStatus)
- Percent Complete (uuu_Percent Complete)

When updating through CSV import, Unifier validates the existing activities including:

- Activity Name (uuu_P6ActivityName)
- Start Date (uuu_P6Start)
- Finish Date (uuu_P6Finish)

If the Start Date (uuu_P6Start) exists for an activity and the Duration (uuu_P6Duration) is also provided in the input CSV file, then Unifier calculates the Finish Date (uuu_P6Finish). In this case, if Finish Date (uuu_P6Finish) is provided, then Unifier calculates the Duration (uuu_P6Duration) based on the Finish Date (uuu_P6Finish) and uuu_P6ActivityCalendar.

In the CSV file, for existing activities:

- You cannot change the status of an activity that is "In Progress" to "Not Started."
- The Actual Finish Date cannot be earlier than the Actual Start Date.
- You can update the Percent Complete column. The range of values are 0 to 100 (zero to one hundred).
- When you enter the Actual Start Date (uuu_P6ActualStart) in the CSV file after the import, Unifier changes the

- status for that activity from "Not Started" to "In Progress."
- You can update an activity with Actual Finish Date (uuu_P6ActualFinish) status as "In Progress."
- If you update the Actual Finish Date for an activity that has not started (Status + Not Started), then the Actual Start Date shows the same value as the Actual Finish Date, and the status shows as "Completed" with the Percent Complete as 100% (one hundred percent).
- If you enter the Percent Complete value without providing an Actual Start Date or an Actual Finish Date, then Unifier dismisses the Percent Complete value.
- For an activity that is in progress (Status = In Progress), if you update the Percent Complete value to 100% (one hundred percent), then Unifier updates the Actual Finish Date to the current date.
- When you update the Actual Start Date and the Actual Finish Date values, the dates cannot be earlier than the Scheduled Start Date.
- When you update the Actual Start Date and the Actual Finish Date values, the dates cannot be later than the Current Date.
- You can add or update the CBS Code (bitemID) and the WBS Code (uuu_cmwbs_picker).
- Unifier changes the Start Date of the successor activities accordingly and based on the Scheduling.
- You can use reschedule the remaining activities by way of the Schedule option, in the toolbar.

New and Existing Activities Through CSV Import

For the new activities with uuu_P6ActivityStatus as "Not Started" the following cases apply for Start, Finish, and Duration:

- Note: Invalid values for any of the date and duration columns will result in error.
- If duration is provided without a start date, then the duration will be ignored.
- If duration is provided with a start date, then the finish date is calculated.
- If the start date and the finish date are provided, then duration is calculated.
- If duration is provided without a start date or a finish date, then an error message will be displayed.
- If only the duration is provided, then an error message will be displayed.
- If only the start date is provided, then an error message will be displayed.
- If only the end date is provided, then an error message will be displayed.
- If the start date and the duration are provided, then the finish date will be calculated.
- If the start date and the finish are provided, then the duration will be calculated.

Note: Any new activities created without any dates entered in the input CSV file will retain the Project Start Date.

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	uuu_P6 PlannedStart	uuu_P6 PlannedFinish	uuu_P6 PlannedDuration	uuu_P6 RemainingEarlyStart	uuu_P6 RemainingEarlyFinish	uuu_P6 RemainingDuration	Behavior after Import
No value entered	No value entered	No value entered	No value entered	No value entered	No value entered	No value entered	No value entered	No value entered	Activity will be created with default value as project Start date for Start, Finish, Planned Start, Planned Finish, RemainingEarlyStart, RemainingEarlyFinish.
Valid date entered >= Project Start Date	Valid date >=Project Start Date and > uuu_P6Start	Calculated field if not provided explicitly	If not provided then should show same as P6Start	If not provided then should show same as P6Finish	Duration calculated between planned start and Planned finish	If not provided then should show same as P6Start	If not provided then should show same as P6Finish	Duration calculated using remaining start and remaining finish	Activity will be created with duration calculated based Start and Finish Dates

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	uuu_P6 PlannedStart	uuu_P6 PlannedFinish	uuu_P6 PlannedDuration	uuu_P6 RemainingEarlyStart	uuu_P6 RemainingEarlyFinish	uuu_P6 RemainingDuration	Behavior after Import
No date entered, then same as uuu_P6PlannedStart; otherwise, retain the date entered	No date entered, then same as uuu_P6PlannedFinish; otherwise, retain the date entered	Calculated field if not provided explicitly	Valid date entered >= Project Start Date	Valid date >= Project Start Date and uuu_P6PlannedStart	Duration calculated between planned start and Planned finish	No date entered, then same as uuu_P6PlannedStart; otherwise, retain the date entered	No date entered, then same as uuu_P6PlannedFinish; otherwise, retain the date entered	Duration calculated using remaining start and remaining finish	Activity will be created with duration calculated based Start and Finish Dates
No date entered, then same as uuu_P6RemainingEarlyStart; otherwise, retains the date entered	No date entered, then same as uuu_P6RemainingEarlyFinish; otherwise, retains the date entered	Calculated field if not provided explicitly	No date entered, then same as uuu_P6RemainingEarlyStart; otherwise, retains the date entered	No date entered, then same as uuu_P6RemainingEarlyFinish; otherwise, retains the date entered	Not applicable	Valid date entered >= Project Start Date	Valid date >= Project Start Date and uuu_P6RemainingStart	Duration calculated using remaining start and remaining finish	Activity will be created with duration calculated based Start and Finish Dates

The validations mentioned above will be applied to the following dates and durations:

- uuu_P6PlannedStart
- uuu_P6PlannedFinish
- uuu_P6PlannedDuration
- uuu_P6RemainingDuration
- uuu_P6RemainingEarlyFinish

- uuu_P6RemainingEarlyStart

New "In Progress" and "Completed" Activities

In the input CSV file for a new activity creation, the following applies to:

- Actual Start
- Actual Finish
- Actual Duration

The invalid values for any of the date and duration columns will result in error.

uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6ActualDuration	uuu_P6ActivityStatus	uuu_P6PercentComplete	Behavior
Valid date entered and on or after Project Schedule Start Date	Valid date entered and >= uuu_P6ActualStart	Not applicable	Not applicable	Not applicable	Activity will be created with Activity Status as "Complete" Activity Complete will be 100% Actual Duration will be duration between Actual Start and Actual Finish. uuu_P6Remaining Start and uuu_P6Reamining Finish will not show any dates as the activity is complete If provided, the remaining dates in the input CSV file for completed activity will be ignored and remaining duration will be 0 (zero) **Note**: If not provided in the CSV input file, the P6Start, P6Finish, P6PlannedStart, and P6PlannedFinish will be the project start date;

uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6ActualDuration	uuu_P6ActivityStatus	uuu_P6PercentComplete	Behavior
					otherwise, the user-provided dates will be retained.
No date entered for uuu_P6Start, uuu_P6Finish and entered uuu_P6ActualStart	No Value provided	No Value provided	No Value provided	Valid value entered	Activity will be created with Activity Status as "In Progress" Activity Percentage as entered in input CSV file Actual Duration will be 0 (zero), if not entered **Note**: If not provided in the CSV input file, the P6Start, P6Finish, P6PlannedStart, and P6PlannedFinish will be the project start date; otherwise, the user-provided dates will be retained. The uuu_P6RemainingStart will be the Actual Start Date and the uuu_RemainingFinish will be the uuu_P6RemainingStart + uuu_P6RemainingDuration
Valid date entered for uuu_P6Start, uuu_P6Finish but no uuu_P6Actu	Valid date entered and on or after Project Schedule	No Value provided	No Value provided	No Value provided	Activity will be created with Activity Status as "Completed" Actual Start and Actual Finish Dates

uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6ActualDuration	uuu_P6ActivityStatus	uuu_P6PercentComplete	Behavior
alStart is provided.	Start Date				are shown with same date as provided in Actual Finish Date and Activity % Complete should be 100% (one hundred percent) Actual Duration will be duration between Actual Start and Actual Finish **Note**: If not provided in the CSV input file, the P6Start, P6Finish, P6PlannedStart, and P6PlannedFinish will be the project start date; otherwise, the user-provided dates will be retained The uuu_P6Remaining Start and uuu_P6Reamining Finish will not show any dates because the activity is complete (if provided in the input CSV file for completed activity, then the dates will be ignored and remaining duration will be 0) Actual Duration will be total duration between Actual Start and Actual

uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6ActualDuration	uuu_P6ActivityStatus	uuu_P6PercentComplete	Behavior
					Finish
No Value provided	No Value provided	Valid value entered for uuu_P6Actual Duration	No Value provided	No Value provided	Activity will be created with Activity Status as "Not Started" Activity Complete will be 0% (zero percent) Actual Duration value will be ignored if entered without uuu_P6ActualStart If the uuu_P6Start and uuu_P6Actual Start are both entered, then those dates are retained; otherwise, the uuu_P6Start and uuu_P6Finish will be the project start date, if it exists The uuu_P6PlannedStart will be same as uuu_P6Start, and the uuu_P6PlannedFinish will be same as uuu_P6Finish The uuu_P6Remaining Start and uuu_P6Remaining Finish will be the same as uuu_P6Start and uuu_P6Finish
Valid date entered in uuu_P6Start and uuu_P6Finis	Valid date entered and <= uuu_P6Act	Not applicable	Not applicable	Not applicable	Error message indicating that the uuu_P6ActualFinish cannot be earlier than

uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6ActualDuration	uuu_P6ActivityStatus	uuu_P6PercentComplete	Behavior
h Valid date entered and on or after Project Schedule Start Date	ualStart				uuu_P6ActualStart

Update Activities

uuu_P6Start	uuu_P6Finish	uuu_P6PlannedStart	uuu_P6PlannedFinish	uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6RemainingEarlyStart	uuu_P6RemainingEarlyFinish	Behavior after import
For Not Started Activity: Valid date provided	No Change	No Change	No Change	No Value	No Value	No Change	No Change	Activity will be updated with uuu_P6Start update provided uuu_P6Finish will be calculated based on Start and duration All other dates - Planned Start, Planned Finish ,Remaining Early Start and Remain

								ing Early Finish will be updated same as Start and Finish Activity status will be "Not Started "
No Change	Valid date provided	No Change	No Change	No Value	No Value	No Change	No Change	Activity will be updated with uuu_P6 Finish and duration will be recalculated All other dates - Planned Start, Planned Finish, Remaining Early Start and Remaining Early Finish will be updated same as Start

								and Finish Activity status will be "Not Started "
No Change	No Change	No Change	No Change	Valid Value entered	No Value	No Change	No Change	Activity will be updated with uuu_P6 Start same as uuu_P6 ActualStart Planned Start and Planned Finish will not be changed Remaining Early start will be same as uuu_P6 ActualStart and Remaining Early Finish will be same as uuu_P6 Finish

								Activity status will be "In progress"

No Change	No Change	No Change	No Change	No Change	Valid date entered	No Change	No Change	Activity will be updated with uuu_P6 Finish same as uuu_P6 ActualFinish Planned Start and Planned Finish will not be changed Remaining Early start and Finish will not show any dates (empty) as the activity is completed Activity status will be "Complete" Activity percent will be 100% (one hundred percent)

Note: When you change any of the above dates, Unifier updates the dates accordingly. For activities that are marked as "Not Started," the values for the Start, Finish, PlannedStart, Planned Finish, Remaining Early Start, and Remaining Early Finish will be the same.

Add Start Milestone Activity

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
Valid date provided	No value	No value	No value	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Not Started" uuu_P6 Start and uuu_P6 Finish will be the same date as given in input CSV for uuu_P6 Start. uuu_P6 Duration will be 0 (zero)

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
No value	Valid date provided.	Valid value provided or not provided.	No value	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Not Started" uuu_P6 Start and uuu_P6 Finish will be the same as uuu_P6 Finish uuu_P6 Duration will be 0 (zero)
No value	No value	No value	Activity Status is provided as 'Not Started'	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Mileston

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								e" Activity Status will be "Not Started" uuu_P6 Start and uuu_P6 Finish will be the project schedule start date uuu_P6 Duration will be 0 (zero)
No value	No value	No value	Activity Status is provided as 'Completed'	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Completed" uuu_P6 Start and uuu_P6

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								Finish will be the project schedule start date uuu_P6 ActualStart and uuu_P6 ActualFinish will be the project schedule start date uuu_P6 Duration will be 0 (zero) uuu_P6 Percent Complete will be 100 (one hundred)
Valid date provided	Valid date provided and not same as uuu_P6 start	Valid value provided or not provided.	No value	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone"

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								Activity Status will be "Not Started" uuu_P6 Start and uuu_P6 Finish will be the same date as given in input CSV for uuu_P6 Start uuu_P6 Duration will be 0 (zero)
No Value	No Value	Valid value provided or not provided.	No value	Activity type is provided as 'Start Milestone'	No value	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Not Started" uuu_P6

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								Start and uuu_P6 Finish will be the same date as given project schedule start date uuu_P6 Duration will be 0 (zero)
Valid date provided	Valid date provided and not same as uuu_P6 start or Value not provided	Valid value provided or not provided.	No value	Activity type is provided as 'Start Milestone'	No value	No value	No value	Error message Note: This is the same case when uuu_P6 ActualStart and uuu_P6 ActualFinish are provided, and they are different dates.

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
Valid date provided	Valid date provided and same as uuu_P6 start or Value not provided	No value	No value	Activity type is provided as 'Start Milestone'	Valid date provided	No value	No value	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be 'Completed'. uuu_P6 ActualStart and uuu_P6 ActualFinish will be same date as provided uuu_P6 Start and uuu_P6 Finish will be the same date as uuu_P6 ActualStart uuu_P6 Duration will be 0

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								(zero) uuu_P6 Percent Complete will be 100 (one hundred) Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be 'Completed'. uuu_P6 ActualStart and uuu_P6 ActualFinish will be same date as provided uuu_P6 Start and uuu_P6 Finish will be

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
								the same date as uuu_P6 ActualStart uuu_P6 Duration will be 0 (zero) uuu_P6 Percent Complete will be 100 (one hundred)

The following dates will show the same date as uuu_P6Start, uuu_P6Finish and uuu_P6Duration for the milestone activities:

- uuu_P6PlannedStart
- uuu_P6PlannedFinish
- uuu_P6PlannedDuration
- uuu_P6RemainingDuration
- uuu_P6RemainingEarlyFinish
- uuu_P6RemainingEarlyStart

Update Existing Activity (Not Started) to Start Milestone

uuu_P6 Start	uuu_P6 Finish	uuu_P6 Duration	Activity Status	Activity Type	uuu_P6 ActualStart	uuu_P6 ActualFinish	uuu_P6 Percent Complete	Behavior
Valid value provided or not provided.	Valid value provided or not provided.	Valid value provided or not provided.	Valid value provided or not provided.	Activity type is provided as 'Start Milestone'	Not applicable	Not applicable	Not applicable	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status

								will be "Not Started" uuu_P6Start and uuu_P6Finish will be the same as project schedule start date uuu_P6Duration will be 0 (zero)

Update Existing Activity (In Progress or Completed) to Start Milestone

uuu_P6Start	uuu_P6Finish	uuu_P6Duration	Activity Status	Activity Type	uuu_P6ActualStart	uuu_P6ActualFinish	uuu_P6PercentComplete	Behavior
Valid value provided or not provided.	Valid value provided or not provided.	Valid value provided or not provided.	Valid value provided or not provided.	Activity type is provided as 'Start Milestone'	Valid value provided or not provided.	Valid value provided or not provided.	Valid value provided or not provided.	Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Completed" uuu_P6Start and uuu_P6Finish will be the same date as uuu_P6ActualStart uuu_P6Duration will be 0 (zero) uuu_P6ActualStart and uuu_P6ActualFinish will be same date and uuu_P6ActualDuration will be 0 (zero) uuu_P6PercentComplete will be

								100 (one hundred) Activity will be created as milestone with Activity Type selected as "Start Milestone" Activity Status will be "Completed" uuu_P6Start and uuu_P6Finish will be the same date as uuu_P6ActualStart uuu_P6Duration will be 0 (zero) uuu_P6ActualStart and uuu_P6ActualFinish will be same date and uuu_P6ActualDuration will be 0 (zero) uuu_P6PercentComplete will be 100 (one hundred)

Activity Sheet Categories

There are three categories of Activity Sheet:

- Duration Based Schedules
- Cost Loaded Schedules
- Resource Loaded Schedules

Duration Based Schedules

The Duration Based Schedules are schedules in which customer use P6 to capture “durations” of schedules, only. Users define the CBS structure, Activities, Start / End Dates of Activities, Durations, etc., but they do not do Resource Assignments, or Cost management in P6.

Cost Loaded Schedules

Users use P6 to capture CBS structure, activities, durations, resource assignments, as well costs.

The Activity Sheet, in this case, receives costs as well as dates that come from P6. Users can directly use Unifier advanced modules (Earned value) for cost comparisons.

Resource Loaded Schedules

Users use P6 to capture “durations” as well as resource assignments (resource units, resource CBS assignment, resource units spread, actual resources consumed till date, etc.). There are no costs captured within P6.

The Activity Sheet, in this case, can receive all the resource units and calculate costs using P6 data and rates.

Unifier advanced modules (Earned value) use the calculated costs.

Activity Sheet based on the Schedule type:

- **Duration Based Schedules**
  - The Activity Sheet receives duration based information from P6
  - (Not always) The Activity Sheet receives resource assignment related information
  - (Not always) The Activity Sheet receives cost related information
  - The Activity Sheet is not available as a source for Cash Flow and Cost Sheet
  - The Activity Sheet does not have any cost related feature (Assign rate sheet and Recost)
  - The Activity Sheet is not available for Earned Value Analysis
- **Cost Loaded Schedules**
  - The Activity Sheet receives the entire duration based information from P6
  - The Activity Sheet receives the entire resource assignment related information
  - The Activity Sheet receives the entire cost related information
  - The Activity Sheet is available as a source for Cash Flow and Cost Sheet
  - The Activity Sheet does not have any cost related feature (Assign rate sheet and Recost)
  - The Activity Sheet is available for Earned Value Analysis
- Resource Loaded Schedules
  - The Activity Sheet receives the entire duration based information from P6
  - The Activity Sheet receives the entire resource assignment related information
  - (Not always) The Activity Sheet receives the entire cost related information
  - The Activity Sheet is available as a source for Cash Flow and Cost Sheet
  - The Activity Sheet has all cost related feature (Assign rate sheet and Recost)
  - The Activity Sheet is available for Earned Value Anal

Activity Sheet Columns

The **Activity Sheet** overlay page has columns that provide more details such as:

- **Activity ID**

- **Activity Name**
- **Activity % Complete**
- **Activity Status**
- **Activity Type**

The following provides details about the columns:

Column name	Description
Control Accounts (Editable)	This is Unifier specific field and is editable in the tab. This can also be updated using import CSV. The accepted values are Yes/No.
Activity ID	This is a unique identifier of the activity. In order to identify and track activities, P6 assigns each activity a unique Activity ID that is the result of joining the Activity ID Prefix with the Activity ID Suffix and then adding an Increment value. For example, a prefix of PROJ-A# combined with a suffix of 2500 and an Increment of 5 will yield the following activity IDs: PROJ-A#2500, PROJ-A#2505, etc.

Column name	Description
Type	Determines how duration and schedule dates are calculated for an activity. Task Dependent: Activities are scheduled using the activity's calendar rather than the calendars of the assigned resources. Choose task dependent when you want to control the duration of the activity yourself (that is, no resources are assigned), or when one or more resources assigned to the same activity can work according to the same calendar. For example, you might have an activity to cure concrete; you know how long the task takes and the addition of resources won't complete the task any earlier. You would designate this activity as task dependent. Resource Dependent: Activities are scheduled using the calendars of the assigned resources. This type is used when several resources are assigned to the activity, but they might work separately. Choose resource dependent when you want to schedule each resource according to his/her own time schedule, or resource calendar, not the activity calendar. The assigned resource availability determines the start and finish dates of the activity. Typically, you use this type when multiple resources assigned to the same activity can work independently, or when availability can affect the activity's duration. For example, an activity that requires an Inspector might be delayed if that resource is assigned to multiple projects or is on vacation. Level of Effort: Activities have a duration that is determined by its dependent activities and are typically administration type. Choose level of effort to indicate that the activity's duration depends on its predecessor and/or successor activities. A level of effort activity is usually one that is ongoing, such as clerical work, Change Management, or project management tasks. For example, site cleanup could be considered a level of effort activity; it occurs repeatedly and is dependent on the completion of a phase. Start or Finish Milestone: Milestone activities are zero-duration without resources, marking a significant project event. Choose start milestone or finish milestone to indicate that the activity marks the beginning or end of a major stage in the project. Milestones have zero duration. A primary resource or an activity owner, and expenses can be assigned to a milestone. In an office building addition project, examples of milestones might include Project Definition Complete, Structure Complete, or End Bidding Process. CBS Summary: Activities that are used to aggregate date, duration, and percent complete values for a group of activities that share a common WBS code level. Choose WBS Summary to indicate that the activity is a summary-level WBS activity. A WBS Summary activity represents a group of activities that share a common WBS level. The summary-level WBS activity enables roll-ups of dates for the activity group. The duration of a WBS Summary activity extends from the start of the earliest activity in a group to the finish of the latest activity. WBS codes control which activities are part of a WBS Summary activity; P6 incorporates any activities that share a component of the WBS Summary activity's WBS code into the

Column name	Description
CBS Code (Editable)	The CBS code in Unifier to which you want to link an activity, assignment, or expense. This is and editable field and can also be updated using import CSV.
Performance % Complete	The percentage of the activity, or project, planned work that is currently complete. The Performance % Complete is used to calculate earned value (EV). It can be based on the activity percent complete, on the 0/100 rule, on the 50/50 rule, depending on the technique for computing earned-value percent complete for the activity's CBS.
Actual Start	If work has started, the date work on the activity, CBS, project, or EPS began. If resources (labor, non-labor, or material) or roles are assigned to the activity, the actual start date is the earliest among all the resource or role assignments. For a CBS, project, or EPS, the actual start date is the earliest actual start date among all activities within the CBS, project, or EPS. When P6 is integrated with Primavera Unifier, the Actual Start date might have been imported from Primavera Unifier rather than calculated by P6.
Actual Finish	The date on which the item, such as an activity, assignment, or project, is complete. When P6 is integrated with Primavera Unifier, the Actual Finish date might have been imported from Primavera Unifier rather than calculated by P6.
Planned Duration	The expected amount of time required to complete an activity. The planned working time is calculated in P6 using the activity's calendar. The duration is measured from the activity's planned start date to its planned finish date.
Actual Duration	The total working time from the activity Actual Start date to the Actual Finish date for completed activities, or the total working time from the Actual Start date to the data date for in-progress activities. The actual working time is computed using the activity's calendar.
Remaining Duration	The total working time from the activity remaining start date to the remaining finish date.The remaining working time is calculated using the activity calendar. Before the activity is started, the remaining duration is the same as the planned duration. After the activity is completed the remaining duration is zero.
At Completion Duration	The total working time from the activity's current start date to the current finish date. The current start date is the planned start date until the activity is started, and then it is the actual start date. The current finish date is the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed. The total working time is calculated using the activity's calendar.

Column name	Description
Activity Attributes (Units)	Planned Total Units The planned units of work for the activity. Actual Total Units The exact number of units that have been expended on the selected activity. Remaining Total Units The remaining units of work to be performed by the resource on the activity. Calculated as Planned Units minus Actual Units. At Completion Total Units The sum of the actual units and remaining units for the resource assignment on the activity. Calculated as Actual Units plus Remaining Units.
Activity Attributes (Cost)	Planned Total Cost The expected total cost of the activity, consolidating costs of all assignments. Actual Total Cost The actual non-overtime plus overtime cost for all the resource assignments of the activity. Remaining Total Cost The remaining cost of all the resource assignments for the activity. At Completion Total Cost The sum of the actual costs plus remaining costs for the resource assignment on the activity. Calculated as Actual Costs plus Remaining Costs.

Column name	Description
Activity Attributes (Earned Value)	Planned Value The portion of the baseline total cost of the activity or project that is scheduled to be completed as of the project data date. Earned Value The portion of the project baseline total cost of an activity or all activities in the project that are actually completed as of the project data date. Budget at completion is calculated from the project baseline. Calculated as Budget At Completion multiplied by Performance Percent Complete. The method for computing performance percent complete depends on the Earned Value technique selected for the activity CS. Estimate to Complete The estimated cost to complete the activity, CBS, or project. Calculated as Remaining Total Cost for the activity or the Performance Factor multiplied by (Budget At Completion minus Earned Value), depending on the Earned Value technique selected for the activity CBS (calculated from the primary baseline). Budget at completion is calculated from the project baseline. Schedule Performance Index A measure of the work accomplished as a percentage of the work scheduled. Schedule Performance Index indicates whether you are meeting earned and planned values within your schedule. A value less than 1 indicates that less work was performed than was scheduled. Calculated as Earned Value divided by Planned Value. Cost Performance Index A measure of the value of work accomplished as a percentage of the actual costs. Cost Performance Index (CPI) indicates whether you have spent money over the budget to date. On the My Preferences page, you can set performance thresholds for CPI calculated values to determine whether you need to take corrective action. Calculated as Earned Value Cost divided by Actual Cost. A value less than 1 indicates that the actual cost has exceeded the planned value. Cost Schedule Index Product of Schedule Performance Index & Cost Schedule Index Schedule Variance The measure of schedule performance on a project. A negative value indicates that less work was actually performed than was scheduled. Calculated as Earned Value minus Planned Value. Cost Variance A measure of cost performance on an activity, CBS, or project. A negative value indicates that the actual cost has exceeded the planned value. Calculated as Earned Value minus Actual Cost. To Complete Performance Index The ratio of the remaining work to the remaining funds. Calculated as (Budget at Completion minus Earned Value) divided by (Estimate at Completion minus Actual Units or Cost). Estimate at Completion The expected total cost of a schedule activity, a work breakdown

Activity Sheet Dates

Activities with Status: **Not Started**

> **Note**: For **Not Started** activities, the dates are always the same for Start, Finish, Planned Start, Planned Finish, Remaining Early Start, and Remaining Early Finish dates.

Start	Finish	Planned Start	Planned Finish	Actual Start	Actual Duration	Actual Finish	Remaining Early Start	Remaining Early Finish
Default to Project Schedule Start Date or to Data Date if the Project Schedule Start Date moved forward. Can modify the date.	Default to Project Schedule Start Date or to Data Date if the Project Schedule Start Date moved forward. Can modify the date. Calculated based on start date + duration.	Default to Start Date. Can be modified.	Default to Finish Date. Calculated based on Planned Start date + duration Can be modified.	Not applicable.	Not applicable.	Not applicable.	Default to Start Date. Can be modified.	Default to Finish Date. Calculated based on Remaining Start date + duration. Can be modified.

Activities with Status: **In Progress**

> **Note**: For **In Progress** activities, the Start and Actual Start would always

be the same, and the Remaining Early Start will be >= Actual Start Date.

Start	Finish	Planned Start	Planned Finish	Actual Start	Actual Duration	Actual Finish	Remaining Early Start	Remaining Early Finish
Default to Actual Start Date Can modify the date. If Start date is modified then update Actual Start date and vice versa. Can be updated by means of the update of Actual Start Date.	Start Date + Duration. Can modify the date >= Start Date.	Planned Start Date will not be updated to latest schedule data dates. Can be modified manually.	Calculated based on Planned Start date + duration. Can be modified.	Can enter date in the column >= project schedule start date. Start will be updated accordingly to align with Actual Start Date. Can be updated by means of Activity Status.	In the attribute form and activity sheet, this field is read-only. The value for this field will be updated as the Duration calculated between Actual Start Date and Duration.	Not applicable.	Default to Start or Actual Start if not scheduled. Can be updated to later date by means of the actual start date or start date. If scheduled, then Remaining Start Date will be Data Date. Can be modified >= Data Date.	Calculated based on Remaining Start Date + Duration If Scheduled, then Remaining Finish will be Data Date + Remaining Duration. Can be modified >= Remaining Start.

Activities with Status: **Complete**

Start	Finish	Planned Start	Planned Finish	Actual Start	Actual Duration	Actual Finish	Remaining Early Start	Remaining Early Finish
Default to Actual Start Date	Default to Actual Finish Date.	Planned Start Date will not be updated	Calculated based on Planned Start	Can enter date in the column >=	In the attribute form and activity sheet,	Not applicable.	Will be empty as the activity is completed.	Will be empty as the activity is completed.

Start	Finish	Planned Start	Planned Finish	Actual Start	Actual Duration	Actual Finish	Remaining Early Start	Remaining Early Finish
Can modify the date. If Start Date is modified then update Actual Start Date and vice versa. Can be updated by means of the update of Actual Start Date.	Can modify the date >= Start Date.	. Can be modified manually.	Date + Duration. Can be modified.	project schedule start date. Can be updated by means of Activity Status.	this field is read-only. The value for this field will be updated as the Duration calculated between Actual Start Date and Actual Finish.			

General Tab

The **General** tab displays the attributes for the selected activity in groups:

- WBS Attributes
- Activity Attributes (General)
- Activity Attributes (Schedule)
- Activity Attributes (Units)
- Activity Attributes (Cost)
- Activity Attributes (Earned Value)

See ***Attributes*** (on page 229) for details.

By default, the **General** tab details will be in the dock, at the bottom the activity log. You can see the **General** tab by selecting the **Activity ID** column and using the split pane icon (the three horizontal dots). The **General** tab will be seen for the activities that are created without attribute form defined, and it will show the standard data elements (starting with uuu_P6). The order and behavior of data elements are based on the design, except for the uuu_P6 element which has a default behavior in the attribute form.

Use the **General** tab to view the activity details of the new activities created, or updated.

The **WBS Picker** and **CBS Code**, when added to the activity attribute form, are shown as columns. You can select the WBS codes and CBS codes that can be assigned to the activities.

When you edit the activity attribute in the **General** tab, the **Cancel** and **Save** options will be made available. You must save the edited data in order to move to the sheet. Edited data will not be save, if you do not save the edited content, in the **General** tab.

You can switch between tabs before saving the information across the tabs.

Actual Dates

- An activity progress <uuu_P6PercentComplete> will be editable once the <uuu_P6ActualStart> has been entered, or the <uuu_P6ActivityStatus> has changed to 'In Progress'. If <uuu_P6ActualStart> has been entered, then the uuu_P6ActivityStatus will be changed from 'Not Started' to 'In Progress' and vice versa, automatically.
- When <uuu_P6ActivityStatus> has changed from ' In Progress' to 'Completed' the <uuu_P6ActualFinish> will be populated with current date and vice versa.
- When <uuu_P6ActivityStatus> has changed from ' Not Started' to 'Completed' the <uuu_P6ActualStart> and <uuu_P6ActualFinish> will be populated with current date.
- Actual Start Date <uuu_P6ActualStart> cannot be entered in future date (cannot be different from the current date).
- Actual Finish Date <uuu_P6ActualFinish> cannot be entered in future date (cannot be different from the current date).

Dependencies Tab

Use the **Dependencies** tab to:

a) Link one or more activities.
b) Define relationship between activities.

You can also enter predecessor dependencies between a selected activity and another activity. The dependency relation is used to automatically shift activity dates forward or backwards based on changes to the predecessor. This is also reflected in the Gantt chart.

In the predecessor section, you can add predecessor activities, in bulk, by using the **Add** option in the predecessor section. In the successors section, you can add the successors, in bulk, to a selected activity by using the **Add** option in successors section.

Predecessors Columns

Column Name	Description
ID	The **ID** column displays the activity ID of the predecessor for the current activity. The **ID** column is added by way of the **Add** option, in the toolbar. This field is editable, and you can change the activity ID. If you enter a value in the **ID** column in the grid and that activity ID does not exist, then Unifier displays and error message. You can enter alphanumeric characters in the **ID** column, only.
Activity Name	The value in the **Activity Name** column is populated with the activity ID that was entered. This is a read-only column in the grid, and you cannot enter or edit the **Activity Name** column value.
Relationship	The following relationship types are supported: ▸ Finish-to-Start ▸ Finish-to-Finish ▸ Start-to-Finish ▸ Start-to-Start
Lead/Lag (days)	The **Lead/Lag (days)** column enables you to specify the number of days the activity can start ahead (lead), or delayed (lag), by mentioning the number of lead or lag days. This is an integer type field which allows both the negative and the positive integers. The lead days will be provided by specifying the negative number, and the lag days can be provided by specifying positive number (specifying the days that the successor activity can be delayed to start). When you click **Add**, a picker with a list of all activities that were defined in the activity sheet will be displayed. This list does not include activities which are successors and current activity. Can select one or multiple activities as predecessors. The default relationship shown in the grid is Finish to Start once user adds the activities. User should be able to select the relationship between the predecessor and current activity by choosing the relationship drop-down and lead/lag days. The same functionality as seen while adding predecessors is applicable in the case of adding successors in the **Dependencies** tab.

Successors Columns

Column Name	Description
ID	The activity ID which will be the predecessor for the current activity. This is added via the Add action on the tool bar.

Relationship	The following relationship types are supported: Finish-to-Start Finish-to-Finish Start-to-Finish Start-to-Start
Lead/Lag (days)	The **Lead/Lag (days)** column enables you to specify the number of days the activity can start ahead (lead), or delayed (lag), by mentioning the number of lead or lag days. This is an integer type field which allows both the negative and the positive integers. The lead days will be provided by specifying the negative number, and the lag days can be provided by specifying positive number (specifying the days that the successor activity can be delayed to start). When you click **Add**, a picker with a list of all activities that were defined in the activity sheet will be displayed. This list does not include activities which are successors and current activity. Can select one or multiple activities as predecessors. The default relationship shown in the grid is Finish to Start once user adds the activities. User should be able to select the relationship between the predecessor and current activity by choosing the relationship drop-down and lead/lag days. The same functionality as seen while adding predecessors is applicable in the case of adding successors in the **Dependencies** tab.

Assigning WBS Code to Selected Activities

Once the activities are created in the sheet, you can assign a WBS Code (**Select WBS Code** window) to a selected activity by using the WBS picker. By default, all of the activities created in the manual activity sheet will show the project-level WBS row as assigned WBS. You can select a single WBS Code from the hierarchy. You can bulk assign the same WBS Code to multiple activities, through drag-and-drop at the cell level within the activity sheet.

Bulk Assigning WBS Code to Different Activities

You can highlight the WBS Code column for multiple activities and assign the same code to all of the selected activity sheet, by using the WBS picker.

Link Activities (Adding Dependencies)

You can link multiple activity sheets by selecting one or more activity sheets, right-click, and selecting the **Link Selected Activities** option. The selected activity sheets will be linked with the default relationship (Finish-to-Start) if no relationship exists.

The **Predecessor** and **Successor** columns in the **Activity Sheet** log show the activity sheets that are linked based on the Finish-to-Start relationship of the selected activity sheets. This setup will also reflect in the Gantt Chart.

Similarly, you can unlink the selected activity sheets by highlighting one or more activity sheets, right-click, and selecting the **Unlink Selected Activities** option. The **Unlink Selected Activities** option will be available only if the selected activity sheets are linked.

When you link multiple activity sheets (using the **Link Selected Activities** option):

- If the same relationship exists for all of the selected activity sheets, then Unifier will not update any values.
- If the predecessor activity has been already added as successor for the highlighted row, then Unifier will display an error message.
- If the successor activity has been already added as predecessor for the highlighted row, then Unifier will display an error message.
- If you select a single activity sheet and try to link (using the **Link Selected Activities** option from **Actions** menu), then Unifier will display an error message.

Assignments Tab

The **Assignments** tab displays the resources and roles assigned to the activity selected in the main grid. The layout displays the following columns:

- Resource Name
- Role Name
- Rate Source
- CBS Code
- Planned Units
- Actual Units
- Remaining Units
- At Completion Units
- Price per Unit
- Planned Cost
- Actual Cost
- Remaining Cost
- At Completion Cost

Assign Price/Unit

To override the price or unit. The Planning and Actuals will be fetched from corresponding Rate Sheet or Overridden Price/Unit from override action. Whenever a different Rate is assigned to a Resource, system will display the following alert message: Perform Recost to see updated costs.

The *gear menu* ( ) options in the **Assignments** tab are:

- **View Spread**
- **Assign CBS**

- **Assign Rate Source**

Select **View Spread** to view the spread of costs or units for a role or resource assignment in a separate pop-up window.

The *gear menu* ( ) options in the **Assignments** tab vary depending on the project type. There is only one option for Cost-loaded and Schedule-based projects:

- View Assignment Spread

The following options are available for the Resource-loaded projects:

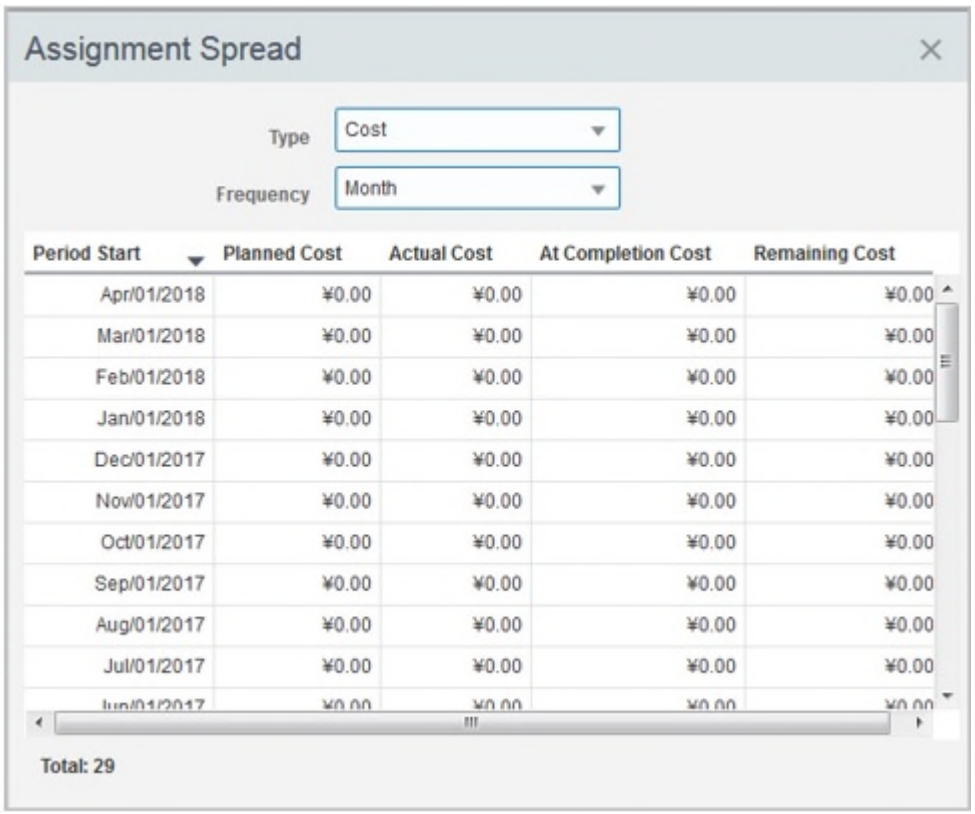
- View Assignment Spread
- Assign CBS
- Assign Rate Source

In the **Type** list, select Cost or Units. Column headings change accordingly.

In the **Frequency** list, change the granularity level of the spread to Week, Month, or Year.

In the **Assignment Spread** dialog, view values in the following columns:

- Period Start
- Planned Cost (or Units)
- Actual Cost (or Units)
- At Completion Cost (or Units)
- Remaining Cost (or Units)



Use this option to assign a CBS code to a resource and/or role. Select **Assign CBS** and select a code in the **CBS** field, and then click **OK**.

Select **Assign Rate Source** to assign a rate source to an assignment.

The **Rate Source** drop-down list has the following options:

- Resource (default)
- Role
- Override

Select an option.

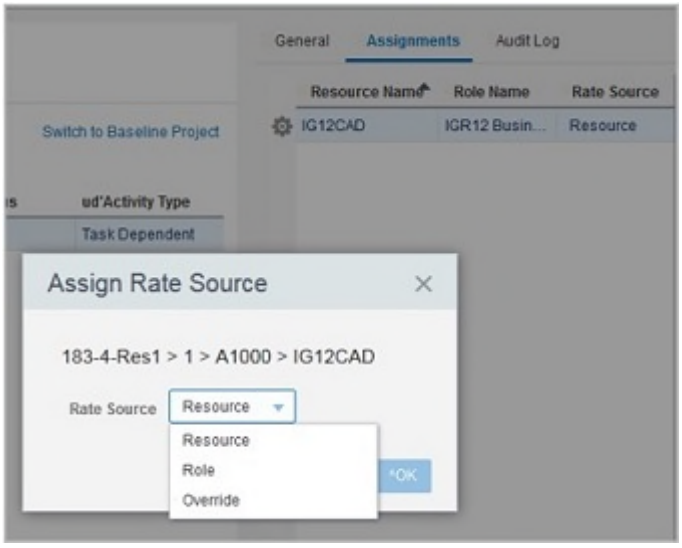
Unifier updates the rates for price/unit of each assignment after retrieving them from the corresponding source fields in the rate sheets as follows:

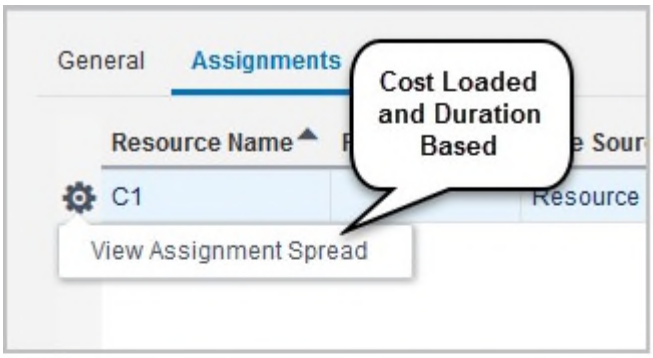
- If the rate source is **Resource**, the data is fetched from the Resource Rate Sheet.
- If the rate source is **Role**, the data is fetched from the Role Rate Sheet.
- If the rate source is **Override**, the Price/Unit data is not refreshed.

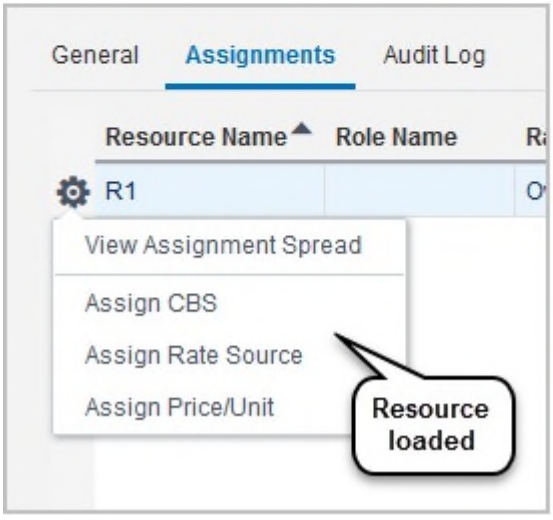
  In this case, you must manually specify the value. To do so, click **Rate Source** and follow the prompts. The Assign Rate Source is only applicable for Resource-loaded projects.
  - Select **Override** and click **OK**.
  - The *gear menu* ( ) displays an additional option for **Override**. Click the *gear menu* ( ) and select **Assign Price/Unit**.
  - Modify the existing rate and click **OK**.

When finished, click **OK**.

Unifier rolls up the assignment values to calculate values at the activity level.



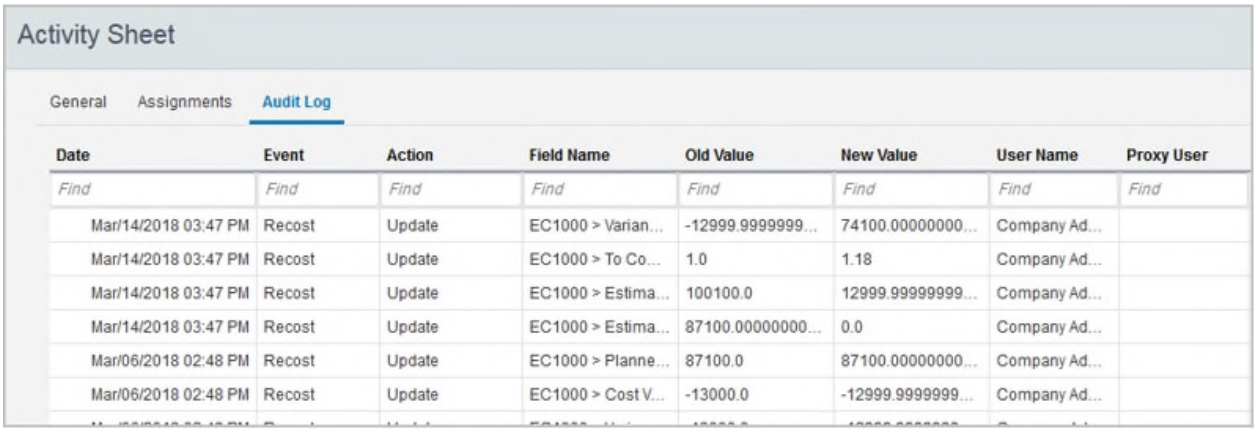




Audit Log Tab

The **Audit Log** tab displays the audit details at the activity level in the following columns:

- Date
- Event
- Action
- Field Name
- Old Value
- New Value
- User Name
- Proxy User



CSV Import and Audit Log

For the existing activities, the Audit Log tab displays the entries for the fields that have been updated by way of CSV import as follows:

- **Date**

  Populated with date and time for the event.
- **Event**

  The value is "Import," in the case of adding or updating the activity.
- **Action**

  For the new activities, the value is populated with, "Create." For the existing activities, the value is populated with, "Update."
- **Field Name**

  Populated with the field that was updated.
- **Old Value**

  Populated with the existing value in case of an update.
- **New Value**

  Populated with the new value.

> **Note**: If a new activity is created by way of the CSV import, then the Audit Log provides an entry.

Manual Activity Sheets (Import of MS Project or P6 Schedules)

You can use data from (import) P6 or Microsoft Project in Unifier project, including creating or managing activity, activity schedules, dependencies, and resource assignments.

> **Note**: If you select multiple activity sheet or System Activity Sheet, then import options will not be seen.

You also have the ability to import project schedules that are maintained in P6 or Microsoft Project (.mpp or .xml) in the manual activity sheets. You can create a project schedule in Unifier (manual activity sheet) and bring data by way of importing a Microsoft Project file (.mpp). After a successful import, you can see that all of the activities, their dependencies, and assignments are created in a new activity sheet.

You can create a project schedule in Unifier (a manual activity sheet) and bring data by way of importing a P6 (.xml). After a successful import, you can see that all of the activities, their dependencies, and assignments are created in a new activity sheet.

The imported data can be further used in the earned value calculations, cash flow management, and so forth.

For the manual activity sheets, Unifier supports:

- Integrating with P6 or Microsoft Project to be able to import activities and related data to a specified activity sheet.
- Adding new activities in an activity sheet, through P6 or Microsoft Project import, with no additional setups.
- Synchronizing matching activities, through P6 or Microsoft Project import.
- Integrating with P6 or Microsoft Project out of the box (OOB), without any data mapping.
- Importing activity schedules, dependencies, and resource assignments, through P6 or Microsoft Project import.
- Updating the activities that are created, through P6 or Microsoft Project import.

When you access the **Activity Sheets** log (**Activity Sheet** node> **Activity Sheets** log), you can click the **Actions** toolbar option and get data from P6 or Microsoft Project import.

- **Actions** > **Import** > **From P6 XML**
- **Actions** > **Import** > **From Microsoft Project**

You can export the XML version of an existing Unifier project schedule (of an activity sheet) into other sources, such as MS project or P6 schedules.

The options above are available for the users who have the **Create** permission, at the activity sheet node level.

> **Note**: The gear menu displays the same options, for any selected activity sheet.

The **History** tab contains the details for any import that you have initiated.

After a successful import, a new activity sheet will be created.

The import will remove any existing data in the activity sheet. Only activities for the selected activity sheet will be removed. The WBS associated to the activity sheet will not be removed.

The following file formats are supported, for the file upload:

- Microsoft Project (2007/2010/2013/2016/2019) schedule (.mpp format)
- P6 schedule (.xml format)

The following objects are supported:

- Activity Sheet properties

  The project schedule start date and calendar. If there is no calendar, then the default project or shell calendar is used, and the earliest start date (across all of the activities in the sheet) will be the project schedule start date.
- Activity Sheet

  The activity attributes (uuu_P6 elements only), Dependencies (Predecessors and Successors), and Resource Assignments (units and costs).
- WBS Sheet

  All of the WBS attributes (WBS Code, WBS Name, and other default mapped attributes).
- Master Rate Sheet:

  Resources/Roles (along with calendars). The Resource ID and Name/Role ID and Name, Currency, Calendar, Default Units/time, type of resource, and standard rates.

You can modify an existing activity sheet data only if you have the **Edit** permission.

The following data from the source file will be copied into an activity sheet:

- Activity Sheet properties
- Activity details

  For Not Started, In Progress, and Completed activities: All uuu_P6 activity data elements and other system defined data elements like uuu_successor, uuu_predecessor, and so forth.

  For In Progress and Completed activities: The uuu_P6percentcomplete will be updated.
- WBS Summaries

  Project WBS Sheet will be updated with the Summary tasks as WBS items, if no data exists.
- Dependencies

  All the relationships between the activities will be retained during the import. Those dependencies will be imported as successors and predecessors.
- Assigned Resources/Roles

  Master Rate Sheet will be updated with adding new resources and roles.
- Resource Assignments

  All the Resources/Roles assigned in the project schedule will be imported, along with units and costs. All activities will show the rolled-up costs and units when there are assignments.

In case of errors, Unifier aborts the importing process. The **History** tab will contain details about failed or successful imports.

Import Activities by way of Microsoft Project

Activities are uniquely identified within one Microsoft Project file by the Unique ID (<UID>). The following applies when importing activities from Microsoft Project:

- New activities inserted
  - A new activity row will be created for each <UID>
  - The <ID> will be copied into Activity ID (uuu_P6ActivityID)
  - The <Name> will be the Activity Name (uuu_P6ActivityName).
  - The Unique ID (<UID>) will be copied from the corresponding Microsoft Project activities.
  - All other default (mapped) elements will be copied into the new activity.
- Dependencies of new activities
  - Dependencies will be added for the new activities (if dependencies exist) using elements within the PredecessorLink tags.
- WBS summaries for new activities
  - The WBS will be identified using the hierarchy provided within the <WBS> tag in the .xml file.
  - This is WBS Code field in the source (the .mpp file for each activity in the Advanced tab).
  - All the summary tasks (in .mpp file) will be created as WBS in project WBS Sheet, if they do not exist.
- Resource assignments for new activities
  - When a new activity is created, all assignments for that activity will be created. If the resource does not exist (resource ID does not exist), then a new resource will be created in Master Rate Sheet, with resource name from Microsoft Project as resource ID and Name. If the resource exists and matches the source, then the resource will not be updated, and the existing resource will be assigned to the activity. If the resource exists but does not match the resource (resource ID is different from the ID in the source Microsoft Project file), then you must create a new resource with resource ID and Name identical to the source file.

Also, when importing the project schedule by using Microsoft Project (.mpp), for:

- **Activities with start date earlier than the project schedule start date**:

  The project schedule start date will show the earliest start date across all the activities and the activities will be imported according to the schedule specified in the import file. In case the project schedule start date is selected (from shell attribute), then Unifier displays: Import has failed as activities have <label of uuu_P6start> earlier than project schedule start date for the selected Activity Sheet. This takes place when importing the project schedule with activities earlier than project start date. Similarly, when the required field values are missing in the source Microsoft Project file, then Unifier displays: Could not add Activity <Activity ID> as <Field1> is required.
- **WBS Code import**:

  The summary tasks in Microsoft Project will be imported as a WBS summaries into the project WBS Sheet. All of the summaries with hierarchy will be imported as a WBS hierarchies into the Project WBS Sheet. Only the WBS Code and the Name will be populated for the WBS Summaries.

Note: Ensure that you add a new WBS Code and associate the activity, or task, with the existing WBS Code if there is an existing WBS Code (with the same WBS name but different WBS code), when importing the summary tasks as WBS codes.

If the WBS Code exists in the project WBS Sheet, then create an activity with the WBS Picker populating the WBS Code. The Used By field, in the project WBS Sheet, will be populated with Activity Sheet that the WBS Code is associated with. Similarly, when the required fields are missing in the source Microsoft Project file Unifier displays the message: Could not add WBS <WBS Code> as <Field1> is required.

- **Resources that do not exist in the Master Rate Sheet in Unifier**:

  Unifier matches the resources by resource name, in the Master Rate Sheet.

  If the resource is not found in the Master Rate Sheet, then the resources will be added with the resource ID and Name because the resource name (from the Microsoft Project), and the source are selected as user-defined (User Defined).

  If the resource already exists in the Master Rate Sheet with the same name, but the ID does not match, then you must create a new resource.

  The default values will be used for the resources that you create.

  If the resource has a required field that is not available in the source Microsoft Project file, then Unifier displays the message: Could not add resource <Resource ID> as <Field1> is required.

- **Roles**:

  The Microsoft project resource assignment does not specify a role.

- **Project calendar in the Microsoft Project does not match with the Activity Shee**t:

  Use the project schedule calendar that is selected for the Activity Sheet. All of the imported activities will be adjusted based on the calendar in the project schedule start date.

- Resource calendar in the Microsoft Project does not match with any calendars available in Standards and Libraries:

  Use the company calendar for the resources that have calendar that do not match. All of the imported resource assignments will be adjusted to the company calendar.

- **Currencies and formats**:

  All costs will be converted to the shell currency, from the source file, for the activities and assignments.

- **Constraints and dependencies**:

  The import process will match the dependencies based on the connected activities. If a dependency is matched, then all properties of the dependency will be updated from the Microsoft Project file, based the mapping described earlier. Activities will be moved to retain the new dependency values. By default, all of the activities will have the "**As Soon As Possible**" constraint even if there are different constraints set for the activities.

- **Impact on milestone activities**:

  You can import the milestone activities into the activity sheet. All the activities that are created as milestone will have activity type selected as: **Start Milestone**.

- **Required fields not part of Import file**:

If there are any required elements in the activity attributes, and the imported file does not have any values for the required elements, Unifier will display the following message in the History tab, and the import will fail: <field name> is a required field in activity details. Or <field name> is a required field in WBS details.

Note: The above condition applies to all of the required elements (in the WBS Sheet and Master Rate Sheet) when importing the WBS Summaries and Resources.

- **Rollback on error**:

  The various conditions (such as resources are not matched or no data for mandatory fields) described above can cause the import process to abort. In such cases, all of the changes made in the project schedule, by the import, will be reverted.

  The errors and warnings will be reported in the History tab (log) for various miscellaneous conditions such as: Activities with start date that is beyond the project start date, and the activity sheet has "From Shell" attribute that is selected for project start date.

  You can import the schedule irrespective of the status of the activity sheet.

Supported Objects for P6 XML Import

The following table lists the supported objects when you are importing a P6 XML file in order to create a project schedule.

Note that the activity sheet selected will have the project schedule start date updated from the source, if there are activities with the start date earlier than the project schedule start date. In this case, the earliest start date will be the project schedule start date. If the project schedule start date is set to begin from the project start date defined in shell attributes, in the case of activities earlier than schedule start date, then Unifier displays an error message.

Business Objects	Description	Unifier
Project Information (Project)	This is the highest level of information related to the project schedule.	With the import of P6 XML, the following project properties will be added to the activity sheet properties: Project Schedule Start Date, Calendar (if exists in Unifier; otherwise, the default project or shell calendar will be used), and Data Date.
Activity (Elements under Activity)	This is the parent node to all child business objects connected to any activity.	The import process will map non-complex type child elements from the Activity to Unifier Activity data elements.
Relationship (Elements under Relationship)	The <Relationship> element exists directly under the project. It stores predecessor and successor relationships between activities. It also supports relationships	The import process will only look at predecessor and successor relationships between activities in the same project.

Business Objects	Description	Unifier
	between activities from different projects.	
WBS (Elements under WBS)	The WBS element wraps one or more activities. WBS elements can itself contain other WBS elements.	The import process will map all WBS Summaries from source to Unifier WBS data elements in WBS Sheet.
Assignment (Elements under Assignment)	The <Assignment> element is a child of <Activity>.	The import process will import all assignments for each task. Assignment properties will be imported based upon data mapping.
Resources/Roles (Elements under Resource/Role tags)	The resources assigned to the activities under assignments tab.	The import process will map all resources/roles from source to Unifier resources/role in Master Rate Sheet. If not available then new resources will be created.

Exporting Selected Activity Sheet to XML

You can select an activity sheet and export the contents using an XML format.

The generated XML file is compatible with the Microsoft Project schema definition, and it will be readable by Microsoft Project. The **Resource** and **Assignment** information will be included in the output if you select to export the **Resource** and **Assignment** in the setup options. The following actions take place during the exporting process in order to generate the XML file:

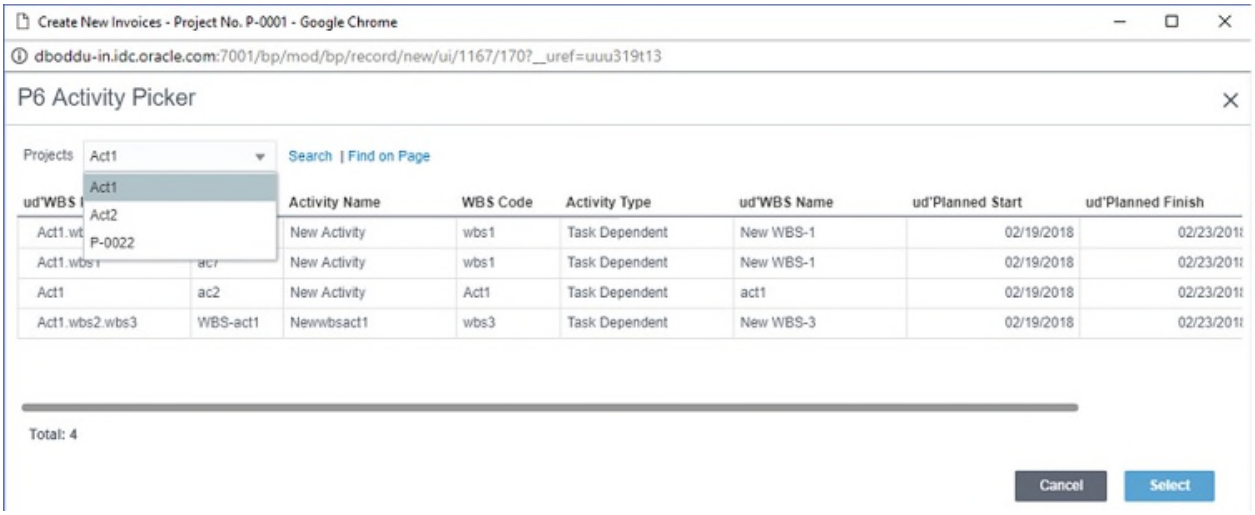
- Generating mandatory project shell data. This includes populating elements under Project with default values. The default values can be generated by saving an empty project to XML in Microsoft Project. Certain elements such as Start, Finish, Project Name, and Currency Code can be obtained from the shell.
- Populating the calendar information based on the shell calendar assigned to the selected activity sheet.
- Creating Resource elements based on all resources in the Master Rate Sheet which are created manually and currently assigned to activities.
- Creating resource calendars based on the calendar assigned to the resources.
- Creating activities and populate values for the default elements and create dependencies and assignments referencing activity UID.

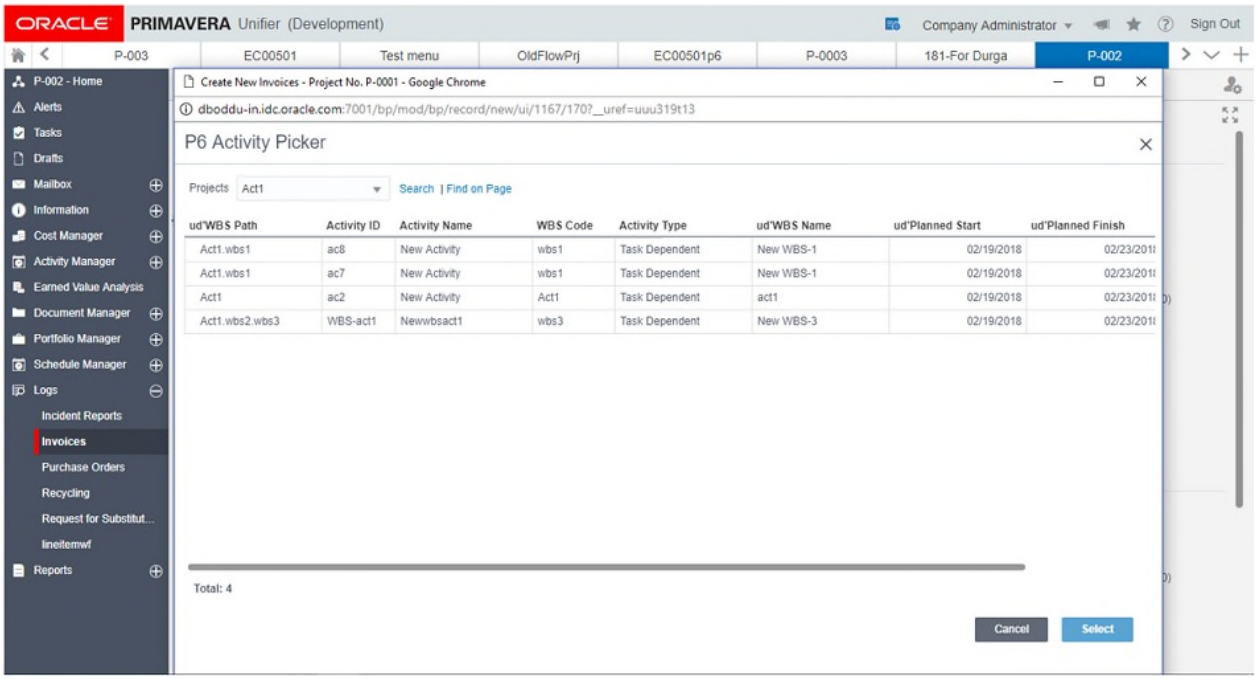
Activity Picker

The activity picker in business process and attribute forms allows you to choose an activity from a selected project. The activity picker supports reverse auto-population for multiple P6 Projects.

Selecting a project:

1) In the **View** drop-down list, select a project. If there are a large number of projects, use **Search** or **Find on Page** to quickly locate the project.
2) Highlight a project on the **Activity Picker** log and click **Select**.





Activity Sheet User Defined Report (UDR)

You can create User Defined Reports (UDRs) from the data present in your Activity Sheet.

The Create User-defined Report window enables you to define the following fields for your UDR (template or individual reports):

- **Data Type**

- **Element**
- **Report Type**
  - **Tabular**
  - **Cross Tab**
  - **Summary**
  - **Alert**
- **Access Type**

> **Note**: The same fields will be available for permission-based data sources.

The elements (Currency/Decimal), in OOTB Activity Sheet along with any user-defined column will be available as DEs for your report.

> **Note**: Only the data elements available in the Activity Sheet will be available in the respective UDR.

Data for Reports can be imported to Unifier form the CSV file. You can import data for Date Field, only (if it is in the same format as in the Unifier client). In case where Unifier client is using mm/dd/yyy, you have to create custom settings in the CSV file.

In Excel, add the new custom formats as follows:

1) Select the cell.
2) Right Click and go to format cells.
3) Click Number Tab and Select Custom category and you can give "mm/dd/yyyy" format.

Roll Up Activity Sheet to Cost Sheet

The **Column Properties** window enables you to select your cost sheets.

The **Type** field enables you to select the following:

- Worksheet
- Activity Sheet

The **Name/ID** field displays the name of the worksheet that you have selected; otherwise, this field displays the Activity Sheet, using the following naming conventions:

- Activity Sheet 01 (Activity) – for Activity Sheet with ID 01
- Activity Sheet 01 (Resource)

If there is no data or sheet for that ID, then Unifier displays an error message when you click **OK**, after making the selection, and the value will be zero in the Cost Sheet for that column.

The **Column** field enables you to select the currency and decimal fields from the Activity Sheet that are available to be rolled up into the Cost Sheet as a column.

Assignments

- uuu_P6PlannedCost (Planned Cost - cost)
- uuu_P6ActualCost (Actual Cost - cost)

- uuu_P6AtCompletionCost (At Completion Cost - cost)
- uuu_P6RemainingCost (Remaining Cost - cost)
- uuu_P6PlannedUnits (Planned Units- Units)
- uuu_P6ActualUnits (Actual Units- Units)
- uuu_P6AtCompletionUnit (At Completion Units- Units)
- uuu_P6RemainingUnits (Remaining Units- Units)

Activity

- uuu_P6PlannedTotalCost (Planned Total Cost - cost)
- uuu_P6ActualTotalCost (Actual Total Cost - cost)
- uuu_P6AtCompletionTotalCost (At Completion Total Cost - cost)
- uuu_P6RemainingTotalCost (Remaining Total Cost - cost)
- uuu_P6PlannedTotalUnits (Planned Units - units)
- uuu_P6ActualTotalUnits (Actual Units - units)
- uuu_P6AtCompletionTotalUnits (At Completion Units - units)
- uuu_P6RemainingTotalUnits (Remaining Units - units)

> **Note**: The decimal type Data Element (DE) is available in the cost formula.

The **Column Name** field, in the **Cell Details** window, displays the DE field label in the respective Activity Sheet.

> **Note**: You can have from 1 to 100 predefined cost DEs created in the Cost Sheet.

Rate Sheet Node

There are two types of rate sheets in Unifier:

- **Master Rate Sheet** (company level)
- Rate Sheet (shell level)

> **Note**: No calculations are needed for a cost loaded schedule in Unifier. The Earned Value Analysis module directly uses the data imported from P6.

A **Rate Sheet** is a subset of the **Master Rate Sheet** in a shell. You can create one or more rate sheets to assign rates to all or selected projects in the Activity Sheet of a shell. The rate sheets retrieve the resources and roles from the activity sheet of that shell and attain the corresponding rates from the **Master Rate Sheet**.

> **Note**: By default, the rates present in the **Master Rate Sheet** are used across all the resources and roles present in the activity sheets across all shells unless you assign a shell-level rate sheet to the **Activity Sheet** in that shell.

A rate sheet provides the rates for the roles and resources assigned to activities of resource loaded schedules. This is required to perform costing and subsequent earned value analysis in Unifier. You can have multiple rate sheets. These rate sheets are listed in the **Rate Sheets** node log.

The **Rate Sheet** (at Project/Shell) log does not show any record at the shell level. When you use the **Rate Sheet** for the first time, you have to create a subset of the **Master Rate Sheet** by clicking on the **Create** option. The **Create** option can be used subsequently to create a rate sheet directly from **Master Rate Sheet**.

You can define the rate breakdowns manually by using a formula to establish rates based on other cost types. When you edit the cell Price/Unit, you can click the formula icon to open the formula window. When you select the formula, Unifier displays the formula builder. The left-hand pane displays the rate breakdowns defined for the rate that you have selected. You can select more than one breakdown and add a formula.

The **Rate Sheet** node log contains a list of rate sheets listed in the **Rate Sheets** log window.

You have the following options for a rate sheet at shell level (in the **Rate Sheet**):

- **Create**

  If you click **Create**, then Unifier creates a rate sheet, with the required activity sheet as the list of *roles* and *resources*, and gets the corresponding rates from the **Master Rate Sheet**, automatically.
- **Copy**

  You can select a rate sheet from the log at shell level (**Rate Sheet**) and click **Copy**. In this scenario, Unifier does not check the *roles* and *resources* list in activity sheet and just creates a copy of the rate sheet selected with user entered name through a window.

> **Note**: To view **Rate Sheet**, you must have appropriate permissions.

There are some minor differences in the log layout for rate sheet between **Master Rate Sheet** (at **Company Workspace**) and **Rate Sheet** (at Project/Shell).

Rate Sheets Node Log Window

To access the **Rate Sheets** log, go to the shell (**User** mode), click to expand the **Activity Manager** module, and click **Rate Sheet**.

Note: The location may differ in your implementation based on the Project/Shell **User Mode Navigator** configuration.

You can use the **Rate Sheets** log to:

- See a list of rate sheets.
- Review the following information (on the right-hand pane of the log) about a selected activity sheet:
  - **Audit Log**
  - **Permissions**
  - **Schedule**

The **Rate Sheets** log has the following toolbar options:

Toolbar option	Description
Create	To create a new rate sheet by copying a data from Company Workspace and Activity Sheet.
Refresh	To refresh the contents of the page.
Delete	To delete an item
Find on Page	To find an item on the page.

The **Rate Sheets** log has the following columns:

Column	Description
Name	The name of the rate sheet entered in the Create Rate Sheet dialog.
Description	The description for the rate sheet entered in the Create Rate Sheet dialog.
Last updated	The date the sheet was last updated manually or through Refresh.
Created By	The name of the user who created the rate sheet.

The **Rate Sheets** log lists the rate sheets and each rate sheet row has a menu options that you can access by way of the *gear menu* ( ). The following table explains the *gear menu* ( ) options for each rate sheet:

Option	Description
Open	To open a rate sheet. **Note**: You can also double-click to open the sheet.
Copy	To select a rate sheet and create a copy of that rate sheet. Enter a name and description and then click **Save** to complete the action.
Delete	To delete one or multiple rate sheets. **Note**: The **Delete** option in the toolbar allows you to delete multiple rate sheets simultaneously. If a rate sheet is being used in the **Activity Sheet**, then it cannot be deleted.

Option	Description
Refresh	To refresh a rate sheet based on *resources and roles* that are used in the system activity sheet of the shell. Select a single or multiple rate sheets and click Refresh to update the list of resources and roles based on the latest data available in the **Activity Sheet**, and the corresponding rates from the **Master Rate Sheet**. Click **Yes** in the Confirmation window to update. On refresh, the following updates are implemented: ▸ If a resource/role has been removed in the **Activity Sheet** in the shell, then the role/resource and corresponding rates are removed from the rate sheet. ▸ If a resource/role has been added to the **Activity Sheet** in the shell, then the new role/resource is added to the rate sheet and its corresponding rates are retrieved from the **Master Rate Sheet**. ▸ If the resource/role exists in both **Activity Sheet** and the rate sheet, then the system updates the resource/role name, if applicable (using resource or role ID as the identifier).
Export CSV	Use the options to export Role or Resource Rate Breakdown as CSV. This comprises the list retrieved from the shell Activity Sheet. The structure includes ID, name, status, effective date, cost type, rate type, and price/unit information. ▸ **Export Role Rate Breakdown:** To export role rates data. ▸ **Export Resource Rate Breakdown:** To export resource rates data.

Option	Description
Update Data	Use the options to import the modified Role or Resource Rates CSV files in order to update role and resource rates. ▸ **Import Role Rate Breakdown:** To update the role rates using an imported CSV and making changes to the data from **Export CSV (Export Role Rates)**. ▸ **Import Resource Rate Breakdown:** To update the resource rates using an imported CSV and making changes to the data from **Export CSV (Export Resource Rates)**.

The **Rate Sheets** log displays the rate sheet properties on the right-hand pane within the following tabs:

Tab	Description
Audit Log tab	To provide the following information: ▸ Date ▸ Event ▸ Action ▸ Field Name ▸ Old Value ▸ New Value ▸ User Name ▸ Proxy User
Permissions tab	To provide information about: ▸ Selected Users/Groups ▸ Permissions
Schedule tab	To set Frequency for Refresh Rates.

Tip: Click the expand icon, in the right pane, to better view the tab details.

The following explains each tab in details.

Rate Sheets Log Window Tabs

The following explains the tabs in the **Rate Sheets** log window:

Audit Log

The **Audit Log** tab tracks all the events of the rate sheet and the component roles and resources.

Permissions

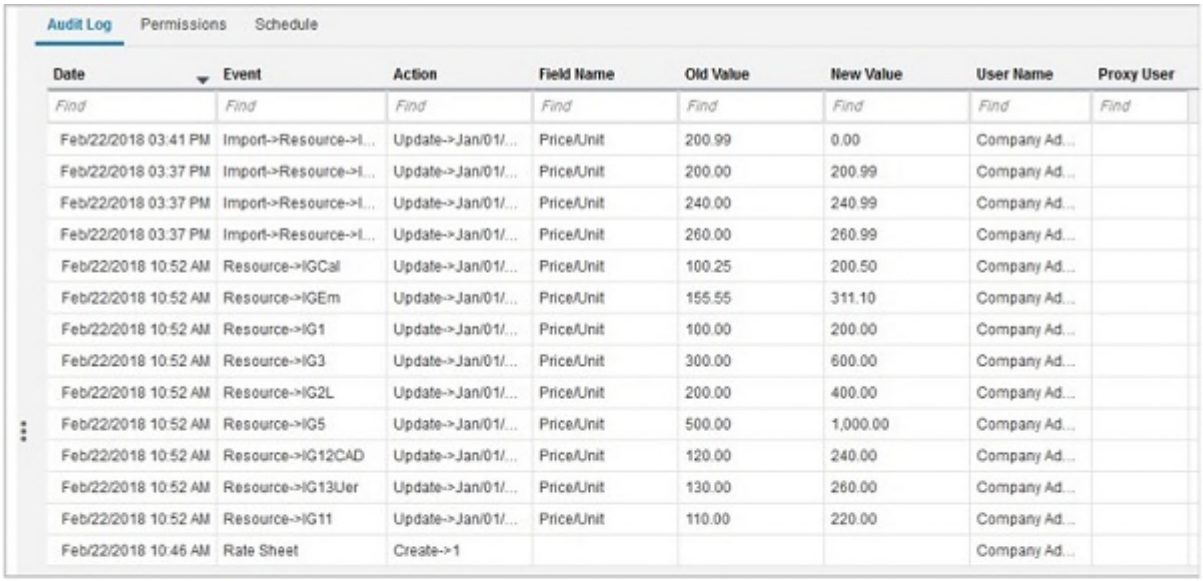
Use the **Permissions** tab to add users and groups and assign permissions for the specific rate sheet: REVIEWER: We need description for the following.

- Modify Permission
- Edit & Refresh
- View

The creator of the rate sheet is assigned all permissions by default.

Schedule

You can use the **Schedule** tab to set a frequency for automatic refresh of rates in the rate sheet at daily, weekly, monthly or quarterly intervals between the specified start and end dates.



Creating a Rate Sheet

The **Create** option on the **Rate Sheets** log window enables you to manually create a rate sheet and retrieve resources and roles information from the **Activity Sheet** and the corresponding rates from the **Master Rate Sheet**.

You can create multiple rate sheets as per business needs. For example, you can create an Internal Rate Sheet to apply internal rates for the resources and roles in the project. If they work on client sites, create another called External Rate Sheet. Other examples can include an Overtime and Standard rate sheets. Use the same rate sheet across the individual projects in the **Activity Sheet** or apply different rate sheets to the individual projects.

> **Note**: Creating rate sheets is optional.

To create a Rate Sheet:

1) From the toolbar, click **Create** to open the **Create Rate Sheet** window.
2) Enter a name in the required **Name** field.
3) Optionally, add a description.
4) Click **Create**. (Click **Cancel** to exit the Create Rate Sheet dialog.)

The new rate sheet appears in the **Rate Sheets** log window.

Rate Sheet Window

Go to the shell (**User** mode) > **Activity Manager** module > **Rate Sheet** node to open the **Rate Sheets** log which lists the rate sheets. Each rate sheet has a *gear menu* ( ) that can be used to open the rate sheet.

> **Note**: You can also double-click to open the rate sheet.

The rate sheet log window has the following toolbar options:

- **View**
- **Print**
- **Refresh**
- **Find on Page**
- **Expand All Groups**, or **Collapse All Groups**

The **View** toolbar option (the **Resource** view as is the default view) enables you to view the attributes of the rate sheet derived from the activity sheet. From the **View** toolbar option, use the **Resource** or **Role** option to switch between **Resource** or **Role** views respectively. The main log, or grid, and the **Rates** tab layout are identical in the two views.

In the main log, or grid, you can see the following columns:

- ID
- Name
- Type (not available for the **Role** view)
- Status
- Currency

Select any item to view and the **Rates** tab displays the details.

Rates

In the **Rates** tab, there are two columns:

- Effective Date
- Price/Unit

Information is retrieved from the **Master Rate Sheet**. You can create multiple rate instances for a resource/role for different effective dates. The **Cancel** and **Save** options appear when you make a change.

From the *gear menu* ( ) of a rate, click **Add** to add a row above it. Complete the **Effective Date** and **Price/Unit** fields. Click **Save** to save changes.

> **Note**: The effective date and rates entered in the tab are not overwritten on refresh. Clicking Refresh in the Rate Sheets log pulls any additional resources and roles from the Activity Sheet.

On the **Rates** tab, you can click the **Create** option to open the Create Rate Breakdown window. The Create Rate Breakdown window has the following columns:

- **Cost Type**

  To select the cost type corresponding to the rate which is being created for the role or resource.
- **Rate Type**

  To select the type of rate which is being created for the role/resource.
- **Price/Unit**

  To provide a price or unit by way of selecting from the drop-down field Manual (Price/Unit) from the method. This can be done manually or by using the Formula Builder (click the calculator icon in the Price/Unite cell).

WBS Sheet Node

A Work Breakdown Structure (WBS) sheet contains the following information:

- Planned Units
- Planned Total Cost
- Actual Units
- Actual Total Cost
- Remaining Units
- Remaining Total Cost
- At Completion Units
- At Completion Total Cost

The **WBS Sheet** node log displays the only available WBS sheet.

The **WBS Sheet** node log displays the only available WBS sheet. Use the three vertical dots icon ( ) to expand the screen and see the properties of the sheet, if necessary.

Note: The EVM data sources should not be seen in the WBS Sheet columns for customers without the EVM license.

WBS Sheet Node Log Window

To access the **WBS Sheet** node log, go to the shell (user mode), click to expand the **Activity Manager** module, and click **WBS Sheet** node.

Note: The location may differ in your implementation based on the Project/Shell **User Mode Navigator** configuration.

You can use the **WBS Sheet** node log window to:

- See the list and properties of a WBS sheet.
- Access a WBS sheet.

The **WBS Sheet** node log window is divided into two panes:

- Grid or table (left-hand)
- **Properties** tab (right-hand)
-

The grid, or table, (left-hand pane) contains the following columns:

- Name
- Description
- Last Updated
- Created By

The **Properties** tab (right-hand pane) has the following fields:

- Name
- Description
- Last Updated
- Created By

Accessing a WBS Sheet

To open a WBS sheet or WBS worksheet (window) form the **WBS Sheet** node log window click to open the *gear menu* ( ) and click **Open** to open the **WBS Sheet** worksheet (window).

The **WBS Sheet** worksheet (window) has the following toolbar options:

Add Column	Enables you to create a new column by providing values for the following mandatory fields: ▸ Name ▸ Type ▸ Datasource ▸ Data Format ▸ Display Mode ▸ Total ▸ Column Position
Project	Enables you to select a project from the drop-down menu.
View	Enables you to change the view of the WBS Sheet window. You can use this option to access created views, create new views, or manage the existing views.
Edit View	Enables you to select which columns to be displayed or remain hidden, apply filters, group and sort by available fields. Save custom views. ▸ In the **Columns** tab, add/remove/reorder columns in the default view. You can save as a custom view. ▸ In the **Filter** tab, add conditions to filter the results of a column. ▸ In the **Group By** tab, create or modify groups using column elements. For example, activity status. ▸ In the **Sort By** tab, define the sorting order (Ascending or Descending) of columns.
Print	Enables you to print or export the **WBS Sheet** contents.

Refresh	Enables you to see the added values to the columns of the WBS sheet.
Find on Page	Enables you to search a for a WBS sheet on the worksheet (window).
Expand All Groups or **Collapse All Groups**	Enables you to expand or collapse a WBS sheet to see the subordinates. The tree- like structure displays the summarized WBS and corresponding values of the project selected in the Projects list. You can export the WBS structure from the sheet.

Menu icon	The menu icon (the icon with three horizontal lines) drop-down enables you to: ▸ **Import** Enables you to import **Column Details**. The **Column Name** drop-down list in the **Import Column Details** window displays all of the direct cell entry columns that have been added to the sheet. You can select any one column and import the values into the column, using the exported CSV file. ▸ **Export** Enables you to export **Column Details** or **Summary WBS Sheet**. When you select **Summary WBS Sheet**, the exported file will contain the entire WBS Sheet information including all WBS Codes and columns data. ▸ **Columns** Enables you to add, copy, or paste columns. See Adding Columns to a WBS Sheet for more details. ▸ **Row Coloring** Enables you to assign single or multiple colors. ▸ **Variance Analysis Setup** Enables you to set up the variance analysis by selecting the BP, workflow, record owner, and trigger conditions. ▸ **Create Variance Analysis Record** Enables you to create the variance analysis records for all of the WBS Codes in the sheet. Before creating a Variance Analysis Record, you must set up the Variance Analysis at WBS level. **Note**: Ensure that the business process that you select is active; otherwise, the system displays this error: "Business Process has not been selected."

The **WBS Sheet** worksheet (window) displays a list of WBS sheets, in rows. The following columns provide detail information about each WBS sheet:

- WBS Code
- WBS Name
- Linked Record (see below for more information)
- BP Actuals
- EVM - Planned Value
- Actual Units
- Activity Sheet - Planned Value
- Planned Units
- Planned Total Cost
- Actual Units
- Actual Total Cost

- Remaining Units
- Remaining Total Cost
- At Completion Units
- At Completion Total Cost

The values for the following columns are coming from P6 directly:

> **Note**: The **General** tab of each WBS Code will not display these columns. In addition, formula values that depend on these columns will not display.

- Planned Units
- Planned Total Cost
- Actual Units
- Actual Total Cost
- Remaining Units
- Remaining Total Cost
- At Completion Units
- At Completion Total Cost

When you right-click on a cell, Unifier displays the following options:

- **Create Variance Analysis Record** (available if you have **Edit** permission for the WBS Sheet)
- **Expand Row**
- **Collapse Row**

Linked Record

For a WBS Code, the Linked Record column indicates if there are any associated auto-created records to hightlighted WBS Code, or not. When you click on the link, the right-hand pane opens, with Linked Records tab highlighted (see below for more information on the Linked Records tab).

The Linked Record column can be empty if no auto-creation of variance analysis record has been triggered.

When a variance analysis record auto-creation fails, when you hover over the link cell, the following message is will be displays: "<failure reason>. Click to see history details." When you click, the right-hand pane displays the history details. Here are some of the failure reasons:

- Business Process is not configured.
- Record owner does not have create permissions.
- Record owner is not active.
- Trigger conditions are not satisfied.

If the rotate icon is displayed instead of the link icon, then the auto-creation of the record is still in progress. The link icon is displayed after the auto-creation is complete.

You can use the *gear menu* ( ) next to each **WBS Code** row, or right-click on a cell, to: **Create Variance Analysis Record**, **Expand Row**, and **Collapse Row**. You can click the **X** icon to close the WBS sheet, exit the **WBS Sheet** log, and return to the **WBS Sheet** node log window (**Activity Manager** module > **WBS Sheet** node).

When you click on a WBS code on the WBS worksheet (window) grid, the right-hand pane opens and displays a series of tabs.

Note: On the right-hand pane, you have the option to use the icons (on the right) to expand the pane or to dock the pane.

The following table explains each tab:

Note: Users who have at least the view permission for the auto-created record should be able to view the record by double clicking.

WBS Line Items tab	Displays the title, description, and amount, or quantity, of the WBS Line Items.
Cell Details tab	Displays the WBS Code and WBS Name along with the column name, currency, cell total amount, and status.
General tab	Displays details about the WBS Attribute Form such as the CM WBS name, code, and WBS type, ETC Technique, and EVM PV.

Variance Analysis tab	Displays the following information: *Setup* block **Business Process** You can select the Business Process at WBS Code level similar to the Variance Analysis Setup done at WBS Sheet. The drop-down menu lists of all project level or shell level BPs, enabling you to select a new value or modify the existing value. **Bypass Initiation Step during auto creation** If you select this option, then the auto-created BP record will bypass the initiation step and land on the second step of the workflow. **Select Workflow** You can select a workflow if your selected BP has multiple workflows. The Select Workflow field function is similar to the Variance Analysis Setup window. **Record Owner** You can select the record owner at WBS level. This field lists all of the OBS Pickers, User Pickers, and User Data Pickers added to the WBS Attribute form. When you select the OBS Picker as the record owner, then the picker in general tab displays the OBS users that you had selected. *Trigger Conditions* block Multiple trigger conditions can be defined for each WBS level. Adding trigger conditions is similar to adding at WBS Sheet level setup. You can add one or more additional conditions to indicate trigger condition of the current WBS. The Data Element, Condition, and Value must be specified exactly the same way as specified in the Variance Analysis setup at WBS Sheet level. The **Create Now** option is enabled once you select the required fields on the tab. Use the **Create Now** option to auto-create the business process record manually if a BP is present in the setup. If the record owner is not specified, then Unifier uses the auto-creator in the destination BP (auto-creation tab) as the record owner. **Note**: Any trigger conditions defined are ignored in case you select the "Create Now" option.

Linked Records tab	All the auto-created records are shown in the Linked Records tab for each WBS Code. The following explains the toolbar options ▸ Refresh: To refresh the items based on the latest records. ▸ Find on Page: To enable you to conduct a text-based search for each column. The following explains the columns. ▸ Record Number: System auto-created business process record number. ▸ BP Name: The name of the Business process. ▸ Title: the title value from the business process record. ▸ Status: The current status of the auto-created record, including the terminated records. ▸ Created By: The username of the user who is creator of the auto-created record. ▸ Creation Date: The date that the record is auto-created.
Variance Analysis History tab	This tab captures the list of failed auto-creation for each WBS Code, in case business process is inactive or trigger conditions have not been met, etc. The following is a list of the columns in this tab: ▸ Event: Displays, "Error" for failed auto-creations. ▸ Action Displays, "Auto Create." ▸ Field Name: This will be WBS Code where the auto creation failure occurs. ▸ New Value: Displays the error text.

When you right-click on each column heading, depending on which column on the grid, some or all of the following options will be made available:

Lock after this Column	To lock or release the position of a column on the grid.

Insert	To insert a column through: **Business Process Data Source** **Direct Cell Entry** **From EVA Sheet** **From Activity Sheet** **WBS Custom Attributes** **Formula** **Hidden**
Hide this Column	To hide the column that you had selected.
Delete	To delete a column.
Properties	To open the **Column Properties** window and review or change (with limitations) the properties of a column.

When you hover over each column heading, Unifier displays information about that column.

Creating a WBS Sheet

When an activity sheet is created, Unifier creates the WBS sheet, automatically.

About Auto-Creation

A BP record can be created automatically or manually from the WBS sheet. A new BP record can be created for any WBS, and the BP record will be permanently linked to the WBS. A WBS can be linked to one and only one BP record at a time.

In a Project, if any of the WBS Codes (the Unifier WBS Codes with line item data removed from P6) have line item data, Unifier dismisses the data and sets the WBS Status (uuu_cmwbs_Status) as inactive.

> **Note**: In the scenario above, you will notice a discrepancy between P6 and Unifier.

When you attempt to create new line items, or records, in CBS- or WBS-type BP, the WBS Picker will not display inactive WBS Codes.

Note: In the EVM Sheet, the WBS Picker displays the all of the WBS Codes, regardless of the status. This is so you can see the actuals for the WBS Code that you select.

Manual WBS Sheet

WBS Sheets Log

A default **WBS Sheets** log, where there is no **System WBS Sheet**, contains the **Create** option, if you have the "**Create**" permission, which enables you to create a manual WBS Sheet.

If you do not have the "**Create**" permission for manual WBS Sheet, then the **Create** option will not be available. If the **System WBS Sheet** has been created, then the embedded sheet will be seen (with project drop-down) by default showing the current project name. You can navigate to the other source project data (received from P6) by using the project drop-down.

When a manual WBS Sheet has been created, the **WBS Sheets** log displays the sheet title as: **Project WBS Sheet**. The **Project** drop-down (on the top section) displays the current project as the selected project. This **Project** drop-down will be seen all the time, and the value defaults to the current shell name for the **Project WBS Sheet**.

You can select another source (project) in the **Project** drop-down. The **Project** drop-down will show the source if there is WBS data integrated from P6 or Primavera Cloud. The **Project** drop-down will show the projects received from source (P6 or Primavera Cloud). When you select a P6 project the WBS data that is related to the selected project will be displayed.

In addition to other options (explained in the previous topics), the toolbar within the WBS Sheets log displays the following options:

- **Add Sibling**
- **Add Child**

The above options are available when the current project, for example **Project WBS Sheet**, is displayed. If you navigate to a P6 or Primavera Cloud project, then the above options will not be available.

The remaining options in the toolbar will be the same as seen for the WBS data received from a P6 or Primavera Cloud project.

The Project WBS Sheet view has the default project row with:

- The project or shell number as WBS Code.
- The project or shell name as WBS Name.

The default project row is a read-only row in the sheet.

When you add a parent WBS Code, by using the **Add Sibling** option, a new WBS row will be created with required fields such as WBS Code and WBS Name.

It is only after the creation of a new WBS row that the **Cancel** and **Save** options become available. You cannot save your entry until the required fields are entered.

The condition above applies when you select the **Add Child** option.

Menu

The **Menu** option (the icon with three horizontal lines) contains the following options and sub-options:

- **Import**

You can import the WBS codes by using a CSV file. The CSV import works similar to the import of CBS codes in the Cost Sheet. When you select the current project, the following options are available:

- **WBS Details**

  To create WBS codes along with hierarchy, using CSV file.

  You can import the WBS Details in bulk by means of CSV import. This option, if you select the current project in the project drop-down, enables you to:

  - Add new WBS hierarchy and WBS codes.

  - Update ETC technique (see below for more information) and other attributes for an existing WBS hierarchy.

  When you import new WBS codes, using CSV file, Unifier checks for duplicate WBS codes. Your import will fail if:

  - You have modified an existing WBS hierarchy in the CSV file.

  - You have removed an existing WBS hierarchy, or WBS Code, in the CSV file.

  When you import the WBS codes successfully, the new WBS codes will be appended to the existing codes in the activity sheet. The audit log (**Audit Log**) entry for the creation of the WBS code, using CSV import will be:

  - Date: The date and time of the event that has occurred.

  - Event: WBS Details

  - Action: Import

  - Old Value: Not applicable.

  - New Value: Not applicable.

- **Column Details**

- **Export**

You can export the WBS codes by using a CSV file. When you select the current project, the following opptions are available:

- **WBS Details**

  To export the existing WBS rows in the Project WBS Sheet.

  All of the columns that are seen in the WBS Sheet will be exported as column headers, in the CSV file.

  The entire WBS path will be seen in the first column, for the WBS Code. All of the existing WBS codes will be exported in order to add new WBS codes at the end, by appending the new WBS codes along with the hierarchy in the CSV file. You cannot remove the existing WBS rows in the CSV file. Always new WBS Codes will be added using CSV file. You cannot remove the existing WBS rows in the CSV file. New WBS codes will be added using CSV file, always.

- **Column Details**

  The following columns will be required and shown as required in the exported CSV file (the first two columns of the CSV file):

  WBS Code

  WBS Name

- **Summary WBS Sheet**

- **Columns**
- **Row Coloring**
- **Variance Analysis Setup**
  - **Create Variance Analysis Record**
- **Earned Value Setup**

  This option will be seen in the **Project WBS Sheet** in addition to the options available for the **System WBS Sheet**. This option allows you to set an ETC technique (see below for more details) that can be used in ETC calculations that will be performed at the WBS level. The technique selected here will be applied to all the WBS Codes in the sheet. The technique will override the individual WBS Code ETC technique selected, if one exists.
- **Properties**

  This option will be seen in the **Project WBS Sheet** in addition to the options available for the **System WBS Sheet**. This option will show the **Project WBS Sheet** default properties.
- **Audit Log**

  This option will be seen in the **Project WBS Sheet** in addition to the options available for the **System WBS Sheet**. There are no changes to the events that get audited in System WBS Sheet. For Project WBS Sheet audit log will capture the creation, update and removal of WBS Codes in the Sheet. Besides any updates done manually in the Sheet will be audited. The details of audit log in Project WBS Sheet is explained in further section.

The current project log, for example **Project WBS Sheet**, contains the following columns:

Column	Description
Row number	This is a read-only column. This column does not have a header. When you enter a new row, delete a row, or reorder rows, the row numbers will get updated throughout the grid. You can use this column to capture errors in the grid. For example, if you miss entering data in a required field, or when validation fails, the cell for the corresponding row displays a red triangle. You can click the triangle to see the errors in a box, similar to a business process line item grid.
WBS Code (uuu_cm_wbscode)	This is an editable column and required when a new row is created by using the Add Sibling or Add Child options. The WBS Code value is unique across the hierarchy. Unifier notifies you if you enter a duplicate WBS Code by way of an error message.
WBS Name (uuu_cm_wbsname)	This is an editable column and required when a new row is created by using the Add Sibling or Add Child options. The WBS Code value is unique across the hierarchy.
Linked Records	This is a read-only column. This column is populated with the linked record associated to the WBS Code. Unifier populates the icon of the WBS Code that has the variance analysis record created.
Other columns	The other columns appear as defined in the column properties. The fixed columns will be seen along with the user-defined columns. If you do not define any user-defined columns, then by default all of the fixed columns will be seen, only.

You can drag the child WBS codes to another location, below any parent. The WBS Codes cannot be dragged to any row beyond the parent or hierarchy. You cannot drag a parent WBS Code.

Gear menu ( ):

The gear menu is not available if you select multiple WBS rows (parent and child rows).

- **Add Sibling**

  To add a sibling to the row.
- **Add Child**

  To add a child to the row.
- **Copy**

  You can copy one or more WBS rows at the same level. This option is not available if the selected rows are in a hierarchy. This option is available when you select multiple WBS child rows, only.
- **Paste**

  This option becomes available if you have copied a row. Use this option to paste the copied rows in the desired location, in the sheet. This option is available when you select multiple WBS child rows, only.
- **Remove**

  This option becomes available if the WBS row is not associated to any activity sheet, or there are no costs allocated. This option is not available if at least one WBS row is associated to an activity sheet or has rolled up cost. This option is available when you select multiple WBS child rows, only.

Rows Added to WBS Sheet

The WBS Sheet, with the WBS rows added, will be seen on the left-hand side of the log. When a WBS Code is associated to the manual activities, the activity sheet name will be populated in the **Used By** column field, displayed in the WBS Details in the right pane. The **Used By** column field is a read-only field and displays all of the activity sheets that this WBS Code is associated with. The **Used By** column field will be available in the **General** tab only, for the **Project WBS Sheet**. It is shown as a first field in the tab.

The WBS rows that are associated with an activity sheet cannot be removed. You can edit, or enter the data, in the editable columns in the sheet (the Cancel and Save options will become available at this stage). The WBS Picker (in the cost business process) will show the current projects WBS that are associated with the activity sheet along with the source projects WBS codes. You can create transactions against the WBS codes of the current project.

Earned Value at Project Level

You can set up the earned value at project level. Under the **Menu** option (the icon with three horizontal lines), use the **Earned Value Setup** option to open the **Earned Value** window and select an ETC technique that can be applied to all of the WBS codes. The selected ETC technique overrides the existing ETC technique defined at the WBS Code level.

In the **Earned Value** window, you can select the technique for computing estimate to complete (ETC). By default, the **ETC = Remaining Cost of activity** option is selected. When you select **ETC = PF * (Budget at Completion - Earned Value)**, ETC is equal to a performance factor (PF) multiplied by (Budget at Completion minus Earned Value), you can select one of the following to set a value for the performance factor:

- **PF = 1**

  Performance Factor equals 1. This method yields an optimistic result with ETC equal to the Budget At Completion (BAC) minus Earned Value Cost. This is the default option selected.
- **Performance Factor = 1 / Cost Performance Index**

  Performance Factor equals 1 divided by the Cost Performance Index (CPI), where CPI equals the Earned Value Cost divided by Actual Cost.
- **PF = 1 / (Cost Performance Index * Schedule Performance Index)**

  Performance Factor equals 1 divided by the Cost Performance Index multiplied by the Schedule Performance Index (the Earned Value Cost divided by the Planned Value Cost).
- **PF =** <select a value>

  Performance Factor is specified by you. If you select this option, you must enter a value (factor) in the field.

After you select an option and save your selection, Unifier displays the following message: **The selected ETC technique will be applied to all WBS Codes in the Sheet. Do you want to continue?** If you select to continue, then:

- The selected ETC technique will be applied to all WBS Codes.
- The audit log (**Audit Log)** of the WBS Code displays an entry of the ETC technique update.

If you select not to continue, then the selected ETC technique will not be applied to any WBS Code.

Earned Value Setup at WBS Level

For the WBS level, in the **Project WBS Sheet** log (bottom portion of the log), you can click the **Earned Value** tab to see the options for selecting a technique for computing the estimate to complete (ETC). The **Earned Value** tab is available for both the summary level and leaf level WBS codes. Once you select a technique, for the summary level WBS codes, you can apply the ETC technique to all child WBS codes (**Apply the ETC Technique to all child WBS Codes**).

WBS Path Behavior in WBS Sheet

The **General** tab (in the **Project WBS Sheet** log (bottom portion of the log) contains a data element (uuu_P6WBSPath) that shows the WBS Path.

Example

Project1
W1
W2
Activity 1

For the WBS W2, the WBS Path will be displayed as Project1 > W1 > W2 so that any activity created using W2 (as WBS Code) will show WBS Path as Project1 > W1 > W2, using the auto-populate definition.

WBS Sheet Properties Window

You can use the **Menu** option (the icon with three horizontal lines) in the **Project WBS Sheet** or **System WBS Sheet** to access the **Properties**.

When a manual WBS Sheet is created (through the **Create** option in the log), Unifier creates the following properties, automatically:

- **Name**

  The name of the WBS sheet. For example, Project WBS Sheet. This field can be 100 characters long.
- **Description**

  The description of the WBS sheet. This field can be 4000 characters long.
- **Last Modified**

  This is a read-only field. The date the WBS sheet is created or updated.
- **Created By**

  This is a read-only field. The signed in user who created the WBS sheet (using the **Create** option).

Project WBS Sheet (Audit Log)

You can the **Menu** option (the icon with three horizontal lines) to access the **System WBS Sheet** and **Project WBS Sheet** audit log (**Audit Log**). The audit log captures the details for all of the manual WBS sheets (including their attributes) that have been created, updated, and removed. The audit log entries for the events such as manual creation or update of the **WBS Codes** and **Earned Value Setup** will be as follows, and all of the events are audited similar to the **System WBS Sheet**:

Attribute Update Reason	Date	Event	Action	Field	Old Value	New Value
WBS Code create	Date and time event occurred	Project WBS Sheet	Create	<WBS Code>	Not applicable	<New Value>
Fields in WBS attributes updates either from sheet or from form view	Date and time event occurred	Project WBS Sheet	Update	<WBS Code> > <Field Name>	<Old value>	<New Value>
WBS Sheet level setups	Date and time event occurred	Earned Value Setup	Create	Project WBS Sheet > Earned Value Setup > All WBS Codes	Not applicable	<New Value>

WBS Sheet level setups updates	Date and time event occurred	Earned Value Setup	Update	Project WBS Sheet > Earned Value Setup > All WBS Codes	<Old Value>	<New Value>
Rearrange of WBS Codes will be audited	Date and time event occurred	Rearrange	Cut, Copy, and Paste	<WBS Code>	<old location>	<new location>

Adding Columns to a WBS Sheet

You can add WBS custom attributes to a WBS sheet, as columns. The **WBS Sheet** window toolbar menu drop-down (the icon with three horizontal lines) enables you to add columns to the **WBS Sheet**.

> **Note**: By default, all of the predefined columns that are in hidden block in the WBS Attribute Form will display when you open the WBS sheet.

The following explains how to add a column by way of creating a new column or copying an existing column.

To add a new column:

1) On the toolbar, click the **Add Column** icon (the three vertical lines) to open the **New Column** window.
2) Enter or select values in the following mandatory fields:
   1. **Name**
   2. **Type**
   3. **Datasource**
   4. **Data Format**
   5. **Display Mode**
   6. **Total**
   7. **Column Position**

   The following fields are optional and enable you to customize you newly added column:
   - **Data Format**
   - **Display Mode**
   - **Total**
3) Click **Save**, or **Save & Add New** to continue.

The following explains the mandatory fields.

Name	The name of the column that you want to add. The value in this field is pre-populated according to the selected **Datasource**; however, you can override the pre-populated value.

Type	This field has the following options:
	• **Business Process Data Source**: When you select this option, all of the data elements, based on SYS BP Decimal Amount and SYS BP Currency Amount which are added on the WBS Attributes Form, are displayed in the **Datasource** drop-down list. Select this option if want to pull the roll up information for the new WBS (Type-cost BP). The **Datasource** drop-down list will be displayed followed by the Formula creator option which enables you to create the query for the column. When you select the Formula Picker, the Formula creator window displays the list of new Cost-type BPs with different statuses where you can select BPs to see the roll-up amount.
	• **Direct Cell Entry**: When you select this option, all of the data elements, based on SYS Numeric and Date logical data sources, are displayed. You can define manual entry column by using the logical sources. You can copy the data in the **Direct Cell Entry** field and paste it into other manual entry column.
	• **From EVA Sheet**: When you select this option, all of the data elements, based on SYS Numeric logical data sources as data sources, are displayed. Select this option if you need to populate data into WBS sheet from an EVA sheet. When you select the logical data source, you can select the sheet name and available DEs, per selected sheet, are displayed as columns to add.
	• **From Activity Sheet**: Select this option if you need to populate data in to the WBS Sheet column from an Activity Sheet. When you select this option:
	  ◦ All of the data elements are displayed in the **Datasource** field (based on SYS Numeric logical data sources and SYS Date logical sources).
	  ◦ The logical data source, you can select the sheet name and available DEs, per selected sheet, are displayed as columns to add.
	When you select the SYS Date logical data source, all of the date columns (like Planned Start, Planned Finish, etc.) from the Activity Sheet will be available to pick.
	• **WBS Custom Attributes**: When you select this option, all of the custom attributes that are added in WBS Attributes Form are displayed.
	• **Formula**: When you select this option, all of the data elements are displayed in the **Datasource** field (based on SYS Numeric, SYS Date logical data sources, and SYS Integer Amount). If you select **Formula** as the type, then the **Datasource** field displays the following:
	  ◦ A list of all of the SYS Numeric and SYS Date logical source data elements that allow formula-type entry. The logical source data elements that already have been used to create a column will not be listed.
	  ◦ A formula creator window (**Formula Creation Window**) that you can use to create the formula for the column. The formula window shows the list of all numeric columns tha can be created as formula.

Datasource	The drop-down list displays a list of all SYS Numeric and SYS Date logical source data elements which allow the formula-type entry. The sources that have been used to create a column will not display in the list. The **Datasource** drop-down list will be displayed followed by the Formula creator option which enables you to create the formula for the column. The Formula window shows all of the list numeric columns (all Numeric Columns) that can be created as formula.
Data Format	The data format options are: ▸ **Currency** ▸ **Decimal** The **Data Format** option is available only when SYS Numeric logical source **Datasource** is selected, and by default the **Currency** must be selected. There are no data format for Date- and String-type data elements. If you select the SYS BP Currency Amount data element, then the default option will be **Currency**. If you select the SYS BP Decimal Amount data element, then the default option will be **Decimal**. When you select **Decimal**, and proceed to choose a number, Unifier displays the choice of decimal places (values are zero to eight).
Summary Rows	Within the formula columns, in the WBS Sheet, you can select the type of summary rows that you want to display. The options under the **Summary Rows** block enable you to display the roll-up value from children (**Sum of All Rows**), or to display the formula value (**Use Formula Definition**). Your options are: ▸ **Blank** ▸ **Sum of All Rows** ▸ **Use Formula Definition**
Display Mode	The display mode options are: ▸ Show ▸ Hide
Total	The total options are: ▸ Blank ▸ Sum of All Rows ▸ Use Formula Definition: This option is available for a formula column.

Column Position After	To position the newly added column. ▸ If you choose a column in the Cost sheet and then select to add a column, then the **Column Position After** drop-down will be pre-populated according to the name of the selected column in the WBS sheet. ▸ If you select no column and then select to add a column, then the **Column Position After** drop-down will be pre-populated according to the name of the last column in the WBS sheet.

To add a new column by way of copying an existing column:

1) On the toolbar options, click the menu drop-down (the icon with three horizontal lines) .
2) Click **Columns**.
3) Click **Copy Column Data** to open the **Copy Column Data** window.
4) Select values in the following fields:
   1. **Copy from Column** (mandatory)
   2. **Percentage**
   3. **Past to Column** (mandatory)
5) Click **Save** to continue.

The following explains the fields.

Copy from Column (mandatory)	Displays all of the existing manual-entry or formula-based numeric columns for you to select.
Percentage	To enter the percentage value. The value must be greater than zero and less than or equal to 100.
Paste to Column (mandatory)	Displays all of the existing manual-entry numeric columns for you to select.

If you right-click on the **Direct Cell Entry** of a numeric column, you can hide, lock, copy (the column data), paste (the column data) into, delete, or see the properties of that column. The **Copy Column Data** option is available only for:

- Direct Cell Entry columns
- Custom elements that have been added as columns

The **Copy from Column** field will be pre-populated with the name of the selected column; however, you can change the source to any other source.

If you right-click on the column header, you can see some or all of the following options:

- **Insert**
- **Hide this Column**
- **Lock after this Column**
- **Delete**

- **Properties**

Auto-Creating Variance Analysis BP Records

The **WBS Sheet** window toolbar menu drop-down enables you to set up the variance analysis. Click the toolbar menu drop-down icon and click the **Variance Analysis Setup** option. Use this option to set up the auto-creation of business processes for all of the WBS Codes. The option enables you to open the **Variance Analysis Setup** window and select the following elements in order to be able to create the variance analysis record:

- *Business Process*

  The **Business Process** field enables you to select the business process (BP) record that must be auto-created. You can select from a list of all BPs that are active in the current project or shell, one BP at a time.
- *Initiation step*

  Selecting the **Bypass Initiation Step during auto creation** option enables you to create workflow BP records by passing I-Step during auto-creation and land on the second step of the workflow. In case of a non-workflow BP, an auto-created record will be in submitted mode.
- *Workflow*

  The **Select Workflow** field is available when multiple workflow schemas are available for the BP that you have selected. If the selected BP is a Non-Workflow BP, then the **Workflow** field will be disabled.
- *Record Owner*
- *You can see the User Pickers, OBS Pickers, or User Data Pickers that have been added in the WBS form.*
- *Trigger Conditions*

  You can add one or more conditions to determine the trigger condition of the WBS. For example, the WBS Type can be CA. Once you select the trigger condition, click the plus icon (+) to see an empty row in trigger conditions. A trigger condition is not required to save the variance analysis setup. The **Trigger Conditions** block lists the following information:

  - Data Element
  - Condition
  - Value
  - Message
- *Schedule*

  Under the **Schedule** block (scroll down on the **Variance Analysis Setup** window) you can schedule auto-creation of the BP record and set frequency.

  Range of Recurrence

  You can determine a range for auto-creation to reoccur.

Create Variance Analysis Record

> **Note**: Before creating a Variance Analysis Record you must set up the variance analysis (**Variance Analysis Setup**).

When you click the **Create Variance Analysis Record** option you trigger the auto-creation of the BP that you have selected during the variance analysis setup for all the WBS Codes.

Viewing a WBS Sheet

The **View** option enables you to change the view of your WBS Sheet window. You can use this option to access created views, create new views, or manage the existing views.

- **Default**
- **Create New View**
- **Manage Views**

You can click the three vertical dots on the left-hand side of the window, or the three horizontal dots at the bottom of the window,(or) to expand the window and see the properties of any selected **WBS Code**.

The **Default** view provides a view similar to the BP log view, Cost Sheet log view, or other logs with the Standard View option.

To create a new view for the WBS Sheet worksheet window, click **Create New View**, then:

Use the **Save View** As field to name your new view. If you save a new view without selecting any columns, then a new view is created with the **WBS Code** and **WBS Name** columns.

Use the following tabs for adding columns, filtering, grouping, and sorting:

- **Columns** tab
- **Filters** tab
- **Group By** tab
- **Sort By** tab

The **Available Columns** box displays all user-defined columns that you may need for your newly created view, including the **Linked Record**. The **Selected Columns** box displays all of the columns that you select. You can move columns in and out of the **Selected Columns** box.

> **Note**: By default, Unifier includes the **WBS Code** and **WBS Name** columns in the **Selected Columns** box; therefore, these two options are not listed in the Available Columns box.

Use the following fields to set the position of the new view:

- **Left Lock after Column**

  Displays a list of all columns, except the last column from the selected columns list. By default, the "None" option is selected, which means that you have chosen no column to be locked, from the left of the sheet.
- **Right Lock after Column**

The default value is "None," which means that you can select not to right-lock the column in the view. Other values in this field are based on the value that you have selected in the **Left Lock after Column**.

The **Filters** tab enables you to filter the rows by WBS Sheet column data, or by WBS Attributes. For WBS Sheets, there are two sections in this tab: WBS Attributes and Sheet Columns.

The **Search Parameters** block displays all of the DEs from the WBS Attribute form that are added in uDesigner (this includes elements from WBS Attribute form that are added as columns). The list also includes the fixed 8 columns that will be seen in WBS Sheet.

When a filter is applied, the view shows all of the WBS rows that match the filter criteria, with their Summary Codes.

Additional check box for filtering rows with Linked BP records is also available (WBS Codes with Linked BP Records). When you select this option, when filtering, then only the WBS Codes that have linked records will be filtered.

The **Group By** tab has two columns:

- **Group By**

  Displays all of the attributes that are added in the WBS form, which includes all of the custom DEs. By default, "None" is selected, and you can select any field to set the Group By. All columns include linked records column.
- **Order**

  By default, the **Ascending Order** is selected, but you can select to show the contents of the column in **Descending Order**, when groups are displayed.

The **Sort By** tab has two columns:

- **Sort By**

  Displays all of the columns that are added in the WBS Sheet. By default, "None" is selected, you can select any field and set **Sort By**.
- **Order**

  By default, the **Ascending Order** is selected, but you can select to show the contents of the column in **Descending Order**, for the data to be displayed in selected **Sort By** column.

To manage the view for the WBS Sheet worksheet window, click **Manage Views**, and select which of the available views (under the **View Name** block) you want to become visible to the user. The **Cancel** and **Save** options enable you to cancel your changes (no changes will be saved and window gets closed) or save any changes that you have made and close the window.

The **Edit View** option enables you to change the view of your WBS Sheet window. The function of the **Edit View** option is identical to **Create New View**.

WBS Sheet with User-Selected View

When you select a user-defined view in the WBS Sheet worksheet window, you will notice the following changes:

Toolbar options:

In the toolbar options, the **Add Column** option is not available, but the following toolbar options are available:

- **Edit View**
- **Print**
- **Refresh**
- **Find on Page**
- **Collapse All Groups**
- **Expand All Groups**

Menu options (the three-horizontal lines with drop-down arrow):

- **Row Coloring (Multiple Colors, Single Color)**
- **Variance Analysis Setup**

The row coloring changed in the view will be temporary.

Gear menu ( )*:*

The *gear menu* ( ) options available (*for each WBS Code*) enable you to expand or collapse the component.

The *gear menu* ( ) options available (*for each WBS Code component*) enable you to **Create Variance Analysis Record** in addition to expanding or collapsing the component.

Column menu options and cell properties:

The column menu actions are not available when you right-click the column header.

When you click in a cell, the right pane opens with the following editable tabs:

- **General** tab
- **Variance Analysis** tab
- **Linked Records** tab
- **Variance Analysis History** tab

You can use:

- The **Expand** icon to expand the right pane.
- The **Doc Bottom** icon to move the right pane under the WBS Sheet worksheet.

Drag and Drop columns option:

You can drag and drop columns to different locations on the WBS Sheet worksheet. When you do so, the user-defined view name (name is shown in the **View** field of the toolbar) will get the prefix: **(Modified)**.

Edit View toobar option:

Use the **Edit View** toolbar option to modify the user-defined view. You can modify the list of available columns, apply filters, change grouping, or change sorting.

In the **Group By** tab, you have the option of grouping based on appropriate rows grouped within, in the view. Once you set the first option for group by, you can use the *gear menu* ( ) to add the second option. The header of each group, with its appropriate rows, appears as an additional column before the WBS Code Column. Once you set the group-by to the view, the group summary row displays the summary value based on the group by column **Properties** > **Total** option. The summary, sum of all rows, formula definition will be blank.

The data seen in the user-defined view will be based on the filters selected in the view.

For the numeric columns, the filter total will be shown along with the column total.

WBS Sheet views when you switch between P6 Projects

After applying a user-defined view, if you switch to another P6 Project, then the data will be filtered based on the selected view. Also, when drag and drop a column in a user-defined view, the view name will be prefixed with: **(Modified)**. In this case, if you switch to a different P6 Project, still the **(Modified)** view name is displayed until you close the WBS Sheet. Position of the columns and sort order of the columns remain as is, when you shift between different P6 projects, for a user-defined view.

OBS Sheet Node

An Organization Breakdown Structure (OBS) sheet contains the following information:

- Full Name
- Short Name
- Unifier User
- Title
- Department
- Status
- WBS Name
- Contract No
- Weekly Capacity

The **OBS Sheet** node log displays the only available OBS sheet.

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OBS Sheet Node Log Window

To access the **OBS Sheet** log, go to the shell (**User** mode), click to expand the **Activity Manager** module, and click **OBS Sheet**.

> **Note**: The location may differ in your implementation based on the Project/Shell **User Mode Navigator** configuration.

You can use the **OBS Sheet** log window to:

- See the list of OBS sheets with corresponding general information.
- Access an OBS sheet.

The **OBS Sheet** log window is divided into two panes:

- Grid or table (left-hand)
- **General** tab (right-hand)
- **Audit Log** tab (right-hand)

When you click on an OBS sheet on the grid, the **General** tab display the details about the OBS sheet. The **Audit Log** tab displays a list of events with details. In the **General** tab, the **Name** field will be editable as long as the OBS sheet is not used anywhere. The **Description** field will always be available for changes. If you have **View** and **Modify** permissions, you can export the **Audit Log** into a CSV file. A CSV export contains all the fields in the OBS sheet.

Accessing an OBS Sheet

To open an OBS sheet form the **OBS Sheet** log window:

1) From the **OBS Sheet** log window, click on a row.
2) Click to open the *gear menu* ( ).
3) Click **Open** to open the **OBS Sheet** log.

The **OBS Sheet** log has the following toolbar options:

- **Add Sibling**
  Enables you to select a record and add an associated member.
- **Add Child**
  Enables you to select a sibling and add an associated member.
- **Actions**
  Enables you to import or export data.
- **Find on Page**
  Enables you to search a for an OBS sheet on the log.
- **Expand All Groups** or **Collapse All Groups**
  Enables you to expand or collapse an OBS sheet to see the subordinates. The tree- like structure displays the summarized OBS and corresponding values of the project selected in the Projects list. You can export the OBS structure from the sheet.

The **OBS Sheet** log displays the following required information about each OBS sheet:

- Full Name
- Short Name
- Status

The **OBS Sheet** log displays optional information about each OBS sheet such as:

- Unifier User
- Title
- Department
- WBS Name
- Contract No
- Weekly Capacity

You can click the **X** icon to close the OBS sheet, exit the **OBS Sheet** log, and return to the **OBS Sheet** log window (**Activity Manager** module > **OBS Sheet** node).

Additional information

OBS structure can also be generated through CSV import. Template can be exported using the Export Data.

OBS Picker

The OBS picker will be available for assigning an OBS to WBS Sheet. The OBS Picker will display only the OBS records with Active status.

> **Note**: The OBS picker supports both "And" and "Or" query conditions.

Creating an OBS Sheet

When there are no OBS sheet available, you can go to the **OBS Sheet** log window (shell > **User** mode > **Activity Manager** module > **OBS Sheet** node) and create one.

> **Note**: Once an OBS sheet is created, the **Create** option will no longer be available because a shell can have one OBS sheet, only.

To create an OBS sheet, when there are none:

1) Click the **Create** drop-down menu and click to select one of the following options:
   a. **New**

      To open the **Create OBS Sheet** window and complete the fields required for creating a new OBS sheet.

      When finished, click **Create**.
   b. **From Template**

      To open the **Templates** window and select the required template for creating a new OBS sheet.

      When finished, click **Select**.
   c. **From Project**

      To open the **Projects** window and select the required project for creating a new OBS sheet. You can select one project, only.

      When finished, click **Select**.
2) Click **Save** to complete creating an OBS sheet.

About Unifier and P6 Integration

You can integrate multiple P6 projects into one Unifier project.

- When you integrate (Project ID mapping) a P6 project into a Unifier project through the **General** tab of the **Shell Attribute** form, Unifier updates the **Schedule Type** field in **General** tab.

  The **General** tab is mostly used for one-to-one integration (one P6 project mapped to one Unifier project).
- When you integrate (Project ID mapping) multiple P6 projects into one Unifier project through the **Integration** tab of the **Shell Attribute** form, Unifier does not update the **Schedule Type** field in the **General** tab.

  In the **Integration** tab, the **Schedule Type** column is updated.

  The **Integration** tab is mostly used for many-to-one integration (many P6 projects mapped to one Unifier project).

Prior to the Unifier 20.7 release:

When you performed **Get Data** from the **Activity Sheets** log, if the P6 Project ID was not defined in the **Shell Attribute** form (**General** tab and **Integration** tab), then Unifier would use the first import synchronization: **Select Synchronization to Exchange Activity Data**.

When you performed **Get Data** from the **Activity Sheets** log, if the P6 Project ID was defined in the **Shell Attribute** form (**General** tab and **Integration** tab), then Unifier would the second import synchronization: **Select Synchronization to Exchange Activity and Assignment Data**.

Starting with the Unifier 20.7 release:

When you performed **Get Data** from the **Activity Sheets** log, whether the P6 Project ID is defined, or the P6 Project ID is not defined, in the **Shell Attribute** form (**General** tab and **Integration** tab), Unifier uses a single import synchronization: **Select Synchronization to Exchange Activity Data**.

The drop-down field (**Select Synchronization to Exchange Activity Data**) displays all of the import synchronizations defined in Gateway for Unifier deployment, including the import synchronizations to get activity and assignment data which is used for EVM.

The system refers to the drop-down field (**Select Synchronization to Exchange Activity Data**) for the import synchronization selected in all of the following cases:

a. P6 Project ID is added in the **Integration** tab
b. P6 Project ID is added in the **Shell Attribute** form
c. When the project number in the **Shell Attribute** form matches with the P6 project number.

Update of CBS Codes from P6

You can get the latest CBS Codes updates assigned to activities from P6 into the activity sheet, using gateway integration.

The Get Data synchronization that creates the activity sheet populates the following data:

- Scheduling data (activities along with assignments and spread data) from the P6 projects mapped to the current shell in the Integration tab.
- CBS Codes assigned to the activities.
- CBS Codes assigned to the resource and role assignments.
- Roles and Resources along with rates assigned to the activities.

> **Note**: Subsequent updates of Role and Resource Rates in P6 will not trigger the updates in Unifier Master Rate Sheet; however, subsequent updates of CBS Code for activities in P6 will trigger the updates in the Unifier Activity Sheet CBS assignments.

You can use P6 to capture duration as well as resource assignments (resource units, resource CBS assignment, resource units spread, actual resources consumed till date, and so forth). The Activity Sheet, in this case, can receive all of the resource units, CBS assignments, and calculate costs using P6 data and rates.

> **Note**: The export of CBS Cost codes from Unifier remain as is.

You can receive the latest updated CBS assignments to Activities and Resources and Role assignments when P6 data is pulled into the Activity Sheet. After the latest Get Data, you will be able to see that the CBS assignments updated in the Activity Sheet and re-costing sums the costs, by the latest CBS assignments. This applies to the existing Activities and Resources and Role in the Activity Sheet.

> **Note**: All of the cost calculations will be updated based on the CBS assignment updates. In addition, any new earned value analysis (EVA) created will show the EVM data according to updated CBS Codes.

The following scenarios explain how to get the latest CBS codes updates assigned to activities from P6 into the activity sheet using gateway integration:

- CBS Code assigned to the activity are updated from P6, and the CBS Code received is inactive in project cost sheet

  If the CBS Codes that are assigned to the activities, and updated, in P6, and the CBS Codes are not active in Unifier Cost Sheet, then the Earned Value Analysis will not show those CBS Codes even though they are updated in the activity sheet. In this case, you will not be able to create BP actuals as those codes will not be shown in the CBS Picker.

  If the CBS Codes updated for an Activity in P6 is no longer active in the Unifier Cost Sheet, then do not update the current CBS assignment for the activity. There will be no change in cost calculations.

  The **History** tab log will show the following message: The CBS Code <CBS code1> received from the P6 in Resource < Resource Name> of Activity <Activity ID> is inactive in the Unifier Cost Sheet and cannot be updated. This indicates that the activities (where the CBS assignments are) have not been updated.

  For CBS Code assigned to the resources are updated from P6 and CBS Code received is inactive in project cost sheet:

  If the CBS Code (updated for the resource in P6) is no longer active in the Unifier Cost Sheet, then do not update current CBS assignment for the resources. There will be no change in the cost calculations.

  In this case, the history log will show following message: The CBS Code <CBS code1> received from the P6 in Resource < Resource Name> of Activity <Activity ID>. This indicates that the activities where the CBS assignments are, have not been updated.

  If the CBS Code is updated both at the activity and and at the resource assignment level in P6, and the updated codes are inactive, then the following two messages will be seen in the history log:

  The CBS Code <CBS code1> received from the P6 in Resource < Resource Name> of Activity <Activity ID> is inactive in the Unifier Cost Sheet and cannot be updated.

  The CBS Code <CBS Code1> received from the P6 in Resource < Resource Name> of Activity <Activity ID> is inactive in the Unifier Cost Sheet and cannot be updated.

  Similarly, if the CBS Code that has been updated for the role in P6, and the CBS Code is no longer active in the Unifier Cost Sheet, then do not update the current CBS assignment for roles. There will be no change in cost calculations.

The **History** tab log will show the following message: The CBS Code <CBS code1> received from the P6 in Role < Role Name> of Activity <Activity ID> is inactive in the Unifier Cost Sheet and cannot be updated. This indicates that the activities (where the CBS assignments are) have not been updated.

- CBS Code is removed for Activity or Resource assignment in P6:

  If the CBS Code assignment do exist for the activity in Unifier Activity Sheet, then do not clear the CBS assignment (with the latest data from P6). This is the case where CBS Code assigned to an activity is removed in P6 projects, and you received the latest activity data from P6 using the Get Data option.

  The **History** tab log will not show any additional warning messages; however, the system ignores any cleared CBS assignments from P6.

- CBS Code is changed in Activity or Resource assignment in P6 and the activity sheet is updated with latest CBS assignments:

  The existing EVA will start to show the PV or AC, CV, and so forth for both the old CBS Codes and the new CBS Codes.

  The BP actual will no longer show the actuals that have line items with the old CBS Codes in the EVM Sheet (default view).

About Unifier and Oracle Primavera Cloud Integration

In the **Activity Sheet** overlay page, you can use the **Open Project in <source name>** option (see ***System Activity Sheet*** (on page 44)) to open the Oracle Primavera Cloud page and open the source URL either in P6 or Oracle Primavera Cloud, in a new tab. The **Activities** tab points to the relevant project data (the project that is selected in the drop-down provided there is an active login session).

The login on the new tab for P6 or Oracle Primavera Cloud will be displayed where you ender your login credentials to sign in and see the relevant project data.

> **Note**: You can see the project is opened even when that particular project is closed in the source server.

Selecting this icon will open the source application in a new tab provided there is a valid URL specified. If no URL is defined in the company properties page, then this link will not be shown in the Activity Sheet.

Also, when you switch to Baseline, the link is not displayed.

Source Application Link in Activity Sheet

In order for the link to open a project in P6, from the Unifier Activity Sheet, you must manually add the mappings, as seen on the left hand side for project mapping template in the "Sync P6 and Unifier Projects."

Note: The mappings are not available in the project mapping template.

Parameters needed for the project mapping template in "Sync P6 and Unifier Projects:"

P6	Gateway	Unifier
WBSObjectId	p6_wbs_id	uuu_int_internal_WBSObjectId
ObjectId	InternalProjectId	uuu_int_internal_proj_id

Similarly, in order for the link to open a project in Oracle Primavera Cloud, from the Unifier Activity Sheet, you must manually add the mappings, as seen on the left hand side for project mapping template in the "Send Primavera Cloud Project data to Unifier."

Parameters needed for project mapping template in "Send Primavera Cloud Project data to Unifier:"

P6	Gateway	Unifier
projectId	InternalProjectId	uuu_int_internal_proj_id

Activity Sheet Created from P6 through Gateway

The activity sheets in Unifier capture the project scheduling data that is coming from either:

a) P6 project, or
b) Oracle Primavera Cloud project.

The project data (both current and baseline projects) from P6 or Oracle Primavera Cloud that is brought over to Unifier by way of non-EVM synchronizations will be added to the activity sheet which can further be used in cash flow analysis.

The costs associated to the activities can be rolled up to the cost sheet. In general, you can assign a CBS code to the activities in the Activity Sheet when the activity sheet is created by using non-EVM synchronizations. This enables you to use the schedules, or costs, associated with the CBS code in your cash flow analysis. In particular, you can:

- Assign CBS Codes (cost codes) to the activities in the Activity Sheet created using non-EVM synchronizations.
- Assign CBS Codes (cost codes) to the activities in the Activity Sheet created using EVM synchronization for duration based schedules.
- Remove CBS assignments (assigned cost codes) to the activities, and resource assignments, in the Activity Sheet.

- View the planned, actual, at completion, remaining units, and costs associated with the CBS Codes (cost codes) in the cost sheet.

You can create an activity sheet, from the **Activity Manager**, by using the **Get Data** option, by way of P6 or Oracle Primavera Cloud integration with the following OOTB synchronizations available in Gateway Integration Settings:

a) Get Activity data from P6
b) Get Activity and Assignment data from P6 for EVM
c) Send Oracle Primavera Cloud Activity data to Unifier

When you create an activity sheet by using the "Get Activity data from P6" or the "Send Oracle Primavera Cloud Activity data to Unifier" synchronization, and using the "Get Activity and Assignment data from P6 for EVM" synchronization for duration-based project, you can assign CBS codes to the activities in the Activity Sheet regardless of the schedule type. This ability is applicable to Activity Sheet created with:

- Duration schedules.
- Resource-loaded schedules.
- Cost loaded schedules.

> **Note**: You can bring CBS codes from P6 using the "Get Activity data from P6" and "Get Activity and Assignment data from P6 for EVM" synchronizations for the resource-loaded and cost-loaded schedules.

In an existing activity sheet that has been created by using "**Get Activity and Assignment from P6 for EVM**" synchronization,

- The **Assign CBS** options in the **Actions** field changes to **Assign CBS Code**, and the **Assign CBS** window label changes to the **Assign CBS Code**.
- The **Assign CBS** option in the *gear menu* ( ) changes to **Assign CBS Code**.

In an existing activity sheet that has been created by using any source-application (for all types of schedules: Duration-based, Resource-loaded, and Cost-loaded):

- The **Assign CBS Code** option, in the *gear menu* ( ), allows you to add a CBS code to the activity sheet that uses the Duration-based schedule. You can select a CBS code from the cost code picker. The cost code picker enables you to select an active CBS code from the project cost sheet.
- In the **Assign CBS Code** window, the **General** tab displays the associated CBS codes.
- The **Assign CBS Code** option in the **Actions** field enables you to assign or update a single CBS code for multiple activities (in bulk), one at a time. In this case, the **General** tab of each activity sheet shows the updated CBS code.
- Any CBS code updates that have been made to an activity sheet will be audited and displayed in the **Audit** tab.
- Use the **Export CSV** option, in the **Actions** field, to export the CBS code assignments for the Resource-loaded and Cost-loaded schedules.

- The **Remove CBS Code** option, in the *gear menu* ( ), enables you to remove the existing CBS assignment for the activity sheet. This option is only available if the activity sheet has a CBS code assigned to it.

  For Duration-based schedule, when you select the **Remove CBS Code** option:

  - If you select **Yes**, then Unifier removes the CBS code assigned to the activity sheet. The audit log will have an entry for an assigned CBS code that has been removed for the activity sheet.
  - If you select **No**, then the assigned CBS code remains as is.

  In an existing activity sheet that has been created by using Resource-loaded and Cost-loaded schedules, when you select the **Remove CBS Code** option:

  - If you select **Yes**, then Unifier removes the CBS code assigned to both the activity sheet and the resource (Resource/Role). The audit log will have an entries for an assigned CBS code that has been removed for the activity sheet and the resource. Oracle recommends that you perform recost in order to calculate the costs (based on the CBS code update).
  - If you select **No**, then Unifier informs you that you can *only* remove the CBS code assigned to the activity sheet. If you select **Yes**, then Unifier removes the CBS code assigned to the activity sheet. The audit log will have an entry for an assigned CBS code that has been removed for the activity sheet. Oracle recommends that you perform recost in order to calculate the costs (based on the CBS code update).

  For Resource-loaded schedule, when you select the **Remove CBS Code** option:

  - If you select **Yes**, then Unifier removes the CBS code assigned to the resource (Resource/Role). The audit log will have an entry for an assigned CBS code that has been removed for the resource (Resource/Role).
  - If you select **No**, then the assigned CBS code remains as is.

To assign a CBS code or remove a CBS code for activities, in the Activity Sheet:

1) Go to your shell and from the left Navigator click **Activity Manager** to expand the node.
2) Click the **Activity Sheet** sub-node.
3) In the **Activity Sheet** log, click to select the activity that you want.
4) Click the *gear menu* ( ) to open the menu and select one of the following options:
   a. **Assign CBS Code**

      When you select **Assign CBS Code**, the **Assign CBS Code** window opens which enables you to use the cost code picker to select the cost code that you want to assign to the activity sheet. The cost code picker displays only the active CBS codes within the Unifier Cost Sheet.

      The CBS code that you select to assign will become *inactive* after you assign it to the activity sheet; however, the existing activity sheet data will roll up to the cost sheet and you can view the data, for the Resource-loaded and Cost-loaded schedules.

      For the *inactive* CBS codes, the new activity sheet data that is coming from P6 will not be rolled up to the cost sheet. The CBS code assignments to the activities are audited and the added or updated CBS codes are displayed in the audit log. This includes the CBS code updates coming from any source by way of **Get Data**.

Using **Get Data** enables you to get the **Manage CBS Assignments** to the activities, from P6 by way of integration.

You can update a CBS code by way of **Get Data** from the **Activity Sheet** log, and the Cost Sheet will be updated accordingly.

If you do not have permission to update the **Activity Sheet**, then the *gear menu* ( ) and the **Actions** menu will not display the **Assign CBS Code**, or the **Remove CBS Code** options.

b. **Remove CBS Code**

Audit tab of the Activity Sheet

For every Activity Sheet, the Audit tab displays the audit log for each activity whenever the following CBS Code updates are done at the activity level:

- New CBS Code assigned to the activity.
- Updating a CBS code assigned to the activity.
- Removing the CBS code assigned to the activity.

The audit log columns display information such as:

Event

Displays "Assign CBS Code" or "Update CBS Code," corresponding to the events that resulted in adding or updating a CBS code. This column also displays "Remove CBS Code" in case of removing the CBS code assigned to an activity.

- **Field Name**

  Displays the activity ID.
- **Old Value**

  Displays the existing CBS code. When you remove an assigned CBS code, this column displays the existing CBS code.
- **New Value**

  Displays the assigned CBS code. When you remove an assigned CBS code, this column does not display any data.

Assigning a CBS code to multiple activities in the Activity Sheet created by using EVM synchronization for Resource-loaded and Cost-loaded schedules:

Similar to assigning or updating a CBS code for an activity sheet, you can use the **Assign CBS Code** option in the **Actions** field to assign or update a single CBS code to multiple activities (in bulk), one at a time. In this case, the **General** tab of each activity sheet shows the updated CBS code.

When you select the **Assign CBS Code** option, in the **Actions** field, for an activity sheet, the **Assign CBS Code** window opens. You can select a CBS code from the cost code picker. The cost code picker enables you to select an active CBS code, from the project cost sheet, and assign it to the selected activities. The audit log will have an entry for an added or updated CBS code.

Assigning a CBS code to multiple activities, in the Activity Sheet created by using Duration-based schedule, using the Export CSV option:

Use the **Export CSV** option in the **Actions** field to assign a CBS code to multiple activities (in bulk), one at a time. Unifier will automatically performs validations (valid CBS code and active or inactive CBS codes) regarding the assigned CBS code.

Removing a CBS Code from multiple activities in the Activity Sheet created by using Duration-based, Resource-loaded, and Cost-loaded schedules:

Use the **Remove CBS Code** option in the **Actions** field to remove a CBS code assigned to multiple activities (in bulk), one at a time. When you select the **Remove CBS Code** option:

- If you select **Yes**, then Unifier removes the CBS code assigned to selected multiple activities (in bulk). The audit log will have an entry for an assigned CBS code that has been removed. For the Activity Sheet created by using Resource-loaded and Cost-loaded schedules, Unifier requires your confirmation. If you select **Yes**, then Unifier removes the assigned CBS code for the selected activities and all of the associated resources (Resource/Role). If you select **No**, then Unifier displays messages regarding the removal of the assigned CBS code for the selected activities for the activity sheet, only.
- If you select **No**, then the assigned CBS code remains as is.

Using CSV import to assign CBS Code to multiple activities

In a Unifier Activity Sheet with all of the schedule types, you have the option to import CSV to multiple activities, in bulk.

To import the CSV template to multiple activities:

1) Click **Actions**.
2) Click **Update Data**.
3) Click **Activities**.
4) Click **Import CSV**.

You can export the CSV template, using Export CSV, and bulk assign the CBS codes to multiple activities, in Duration-based schedules.

All of the validations (CBS codes, active, and inactive CBS codes) regarding the assigning of the CBS codes to multiple activities take place during the CBS code assignment.

Activity Sheet Created from Oracle Primavera Cloud Project through Gateway

When you create an activity sheet by way of integration with Oracle Primavera Cloud, you can assign CBS codes to the activity sheet.

In the Activity Sheet log, click and select the activity that you want.

Click the *gear menu* ( ) to open the menu and select one of the following options:

a) **Assign CBS Code**
b) **Remove CBS Code**

In the activity attribute form, the General tab displays the associated CBS code.

For details about the functionality for assigning, updating, and removing CBS code from an activity (in Activity Sheet) from P6 using both non-EVM and EVM synchronizations, see the preceding topic: ***Activity Sheet Created from P6 Through Gateway*** (on page 173).

Using CSV import to assign CBS Code to multiple activities

In a Unifier Activity Sheet with all of the schedule types, you have the option to import CSV to multiple activities, in bulk.

To import the CSV template to multiple activities:

1) Click **Actions**.
2) Click **Update Data**.
3) Click **Activities**.
4) Click **Import CSV**.

You can export the CSV template, using Export CSV, and bulk assign the CBS codes to multiple activities, in Duration-based schedules.

All of the validations (CBS codes, active, and inactive CBS codes) regarding the assigning of the CBS codes to multiple activities take place during the CBS code assignment.

Unifier Activity Manager for Oracle Primavera Cloud Schedules

You can also integrate multiple Oracle Primavera Cloud projects into multiple Unifier projects.

In Oracle Primavera Cloud, if two or more projects have the same **Project ID**, then when integrating those projects into a single Unifier project, Unifier will randomly select only one of the Oracle Primavera Cloud projects that have same Project ID and integrates that project into Unifier.

Note: You can access the **Activity Manager** module for setting up Oracle Primavera Cloud schedules the same way as accessing the **Activity Manager** module in a shell. The **Activity Sheets** log components (for setting up Oracle Primavera Cloud schedules) are also the same as the **Activity Sheets** log in a shell.

The following explains the information specific the **Activity Sheets** log for Oracle Primavera Cloud schedules.

Get Data	Use this option (**Get Data**) to: a) Create an activity sheet for the first time. b) Update an existing activity sheet with the most recent activity spread data from the Oracle Primavera Cloud project. Updating triggers a new OOTB import synchronizations if you have selected the **Select Synchronization to Exchange Activity Data** option in Gateway integration settings drop-down list. All of the synchronized Oracle Primavera Cloud project activities, planned dates, actual, at completion dates, and associated WBS Code will be displayed in the activity sheet. If the shell is not active (inactive shell), then Gateway integration will fail. When you select this option (Get Data), the system checks for the Oracle Primavera Cloud project that as defined in the **Integration** tab and then brings the Oracle Primavera Cloud project activity data and their schedules into the activity sheet: ▸ Based on the import synchronization defined in Gateway settings, and ▸ If Oracle Primavera Cloud and Unifier projects are linked. If you select this option and there is no **Project ID** added in the **Integration** tab, Unifier will display this message: *Valid Project ID is not specified in the Shell Integration Tab.* **Note**: Unifier does not bring the baseline (project data) from Primavera Cloud.

Send Data	Use this option (Send Data) to run the export synchronization to send the updated activities and schedules from Unifier Activity Sheet to the Oracle Primavera Cloud. The data elements in the business processes, or the shell attribute form, which have been set to reverse auto-populate (RAP) back to the Oracle Primavera Cloud Activity Sheet (using P6 Activity Picker) will get the latest updates into the Oracle Primavera Cloud Activity Sheet. You can send the updated Unifier Activity Sheet data (such as: updated Actual Start Date or Finish Dates) to the Oracle Primavera Cloud project which is linked by way of the OOTB export synchronization option: Update Unifier Activity data in to Primavera Cloud. The **Schedule** tab, in the Activity Sheet log, shows this option, and you can set the scheduled send data based on frequency.
Mapped Projects tab	The **Mapped Projects** tab has the following toolbar options: ▸ **Refresh** To refresh the log items for both the **Mapped Projects** tab and the **History** tab. ▸ **Find on Page** To conduct a search for items on the list. The **Mapped Projects** tab displays a list of all of the mapped Oracle Primavera Cloud projects. The following columns are available in this tab: ▸ **Project ID**: Displays the linked Oracle Primavera Cloud Project ID. ▸ **Project Name**: Displays the project name. ▸ **Project Type**: Displays the value of either Current or Baseline. If you receive the current schedule information, the **Project Type** column shows: **Current**. ▸ **Project Start Date**: Displays the start date of the project. ▸ **Data Date**: Displays the last refreshed date from Oracle Primavera Cloud. ▸ **Schedule Type**: Displays **Duration** as schedule type.
Schedule tab	The **Schedule** tab enables you to set the frequency for **Get Data** along with a table that shows the schedules based on the frequency. This is applicable to all projects in the activity sheet. Other drop-down values for the **Set Frequency for** will be **Send Data**. You can select **Send Data**, but the OOTB synchronization option is not available for sending the updated activity data back to Oracle Primavera Cloud.
History tab	The **History** tab displays the history of all of the events that are being performed across the Oracle Primavera Cloud projects that are present in the activity sheet.

When you open an activity from the **Activity Sheets** log, the **Activity Sheet** overlay page opens.

The **Activity Sheet** overlay page displays all of the activities data, in columns, such as:

- **Activity ID**
- **Activity Name**
- **Activity % Complete**
- **Activity Status**
- **Activity Type**

The **Activity Sheet** overlay page displays the general information about an activity in the **General** tab (right-hand pane), categorized by blocks, such as:

- **WBS Attributes**
  - WBS Code (uuu_P6WBSCode): WBS Code associated to each Activity.
  - WBS Name (uuu_P6WBSName): WBS Name associated to each Activity.
  - WBS Path (uuu_P6WBSPath): WBS Path associated to each Activity.
  - Work Package (uuu_P6WorkPackage): This is the leaf node for every WBS structure and will have the values Yes/No.
- **Activity Attributes (General)**
  - Activity ID (uuu_P6ActivityId)
  - Activity Name (uuu_P6ActivityName)
  - Status (uuu_P6ActivityStatus)
  - Type (uuu_P6ActivityType)
  - Performance % Complete (uuu_P6PercentComplete)
- **Activity Attributes (Scheduling)**
  - Planned Start (uuu_P6PlannedStart)
  - Planned Finish (uuu_P6ActualFinish)
  - Planned Duration (uuu_P6Planned)
  - Actual Start (uuu_P6ActualStart)
  - Actual Finish (uuu_P6ActualFinish)
  - Actual Duration (uuu_P6ActualDuration)
  - Remaining Duration (uuu_P6RemainingDuration)
  - At Completion Duration (uuu_P6AtCompletionDuration)

You can use this activity data in a business process using **Activity Picker**, and the updated dates can be reverse auto-populated into the activity sheet. The activity sheet data can be sent back to Oracle Primavera Cloud using the export synchronization selected in Gateway integration settings.

Activity Mappings in Gateway

The following activity attributes are displayed in the log:

Oracle Primavera Cloud	Gateway	Unifier
activityPercentComplete	PercentComplete	uuu_P6PercentComplete
actualDuration	ActualDuration	uuu_P6ActualDuration
actualFinishDate	ActualFinishDate	uuu_P6ActualFinish
actualStartDate	ActualStartDate	uuu_P6ActualStart
atCompletionDuration	AtCompletionDuration	uuu_P6AtCompletionDuration
finishDate	FinishDate	uuu_P6Finish
activityCode	Id	uuu_P6ActivityId
activityName	Name	uuu_P6ActivityName
plannedDuration	PlannedDuration	uuu_P6PlannedDuration
plannedFinishDate	PlannedFinishDate	uuu_P6PlannedFinish
plannedStartDate	PlannedStartDate	uuu_P6PlannedStart
projectId	ProjectId	uuu_int_p6_project_id
remainingDuration	RemainingDuration	uuu_P6RemainingDuration
remainingFinishDate	RemainingFinishDate	uuu_P6RemainingEarlyFinish
remainingStartDate	RemainingStartDate	uuu_P6RemainingEarlyStart
startDate	StartDate	uuu_P6Start
activityStatus	Status	uuu_P6ActivityStatus
activityType	Type	uuu_P6Activitytype
wbsCode	WBSCode	uuu_P6WBSCode
wbsId	WBSObjectId	uuu_P6WBSElementId
wbsPath	WBSPath	uuu_P6WBSPath
wbsName	WBSName	uuu_P6WBSName

The **WBS Sheet** will be created if the **WBS Structure** field mapping template is defined in Gateway. The **WBS Sheet** sheet shows the WBS hierarchy, or structure, associated with the activities.

> **Note**: OOTB synchronization does not provide field mappings for the **WBS Structure**. You must define the WBS structure mapping in Gateway for the WBS sheet that has been created in Unifier.

The **WBS Sheet** sheet lists the WBS structure. All of the cost and units columns will be zeros (0s) in Unifier 20.7. All of the predefined eight columns are displayed by default, with cost and unit values as zeros (0s).

The **System Data Elements** that are available in the **WBS Attribute** form are not be editable, but you can add additional data elements in the **WBS Attribute** form.

You can add additional columns based on type directly as a cell entry, formula, or from:

- WBS Custom Attributes
- Business Processes
- Activity Sheet

Refer to the FRD ANSI EVM - WBS Sheet - Phase II regarding additional columns and other functionalities allowed in **WBS Sheet**.

> **Note**: For duration based schedules, the **WBS Picker** does not show the associated **WBS Codes** in the business processes, when the **EVA Sheet** is not created.

Activity Picker in Business Process or Shells

When an Activity Picker that is based on P6 Activity Picker data definition is placed on a business process upper form or detail form, or in the Shell attribute form in uDesigner, you can use that picker to select activities from the **Activity Sheet** located within that shell.

When you select an activity by way of a P6 Activity Picker, the system displays the **Activity Picker** log, as defined in uDesigner. The **Activity Picker** log lists all of the Oracle Primavera Cloud Projects in the **Projects** drop-down, where you can select the current schedule and select the activity sheet. After selecting the activity sheet, the hierarchy (similar to the one used in the activity sheet) will be displayed.

The list of activities from the picker is filtered according to the query conditions defined within the Data Picker configuration, in Unifier Admin mode.

The data elements that can be set to auto-populate from a picker will be populated from the selected activity in the picker.

The data elements that have been set to reverse auto-populate (RAP) to Oracle Primavera Cloud will RAP according to the RAP conditions, in uDesigner. If no RAP conditions are defined, the data elements that have been set to reverse auto-populate (RAP) to Oracle Primavera Cloud will RAP when the record is moved to next step (for Workflow BPs) and when the record is marked as: Finish Edited' (for Non-Workflow BPs).

The linked data elements using an activity picker get updated when the activity gets updated by way of integration.

The auto-population will take place if the picker is set to auto-populate from another picker, and also is set as a source to auto-populate into other data elements.

If a picked activity is deleted, then the system will remove the picker value, and the data elements that hold auto-populated from that activity (the deleted activity) continue to display their values. In such scenario, the system will remove the data elements that hold dynamically linked values.

Using Activity Sheet Data to Track Baseline, Forecast, and Spends in Cash Flow

Cash Flow Analysis enables you to gain an idea of the financial health and liquidity of your business, by showing what is actually available to use to meet your business needs.

You can use the CBS-type Cash Flow curve to get the Units, or Cost Data, from the Activity Sheet as per CBS code either at the Activity level, at the Resource level.

You can use the Baseline Cash Flow curve to get the Planned, Remaining, and At Completion units. In this case, the total for each CBS Code and Cost comes from the Cost Sheet column, the Planned, or the At Completion costs (from the Activity Sheet).

Similarly, the Forecast Cash Flow curve brings the Planned, Remaining, and At Completion units, or the costs per CBS Code (from the Activity Sheet).

You can use the Spends-type Cash Flow curve to get the Actual Costs from the Activity Sheet, in addition to getting the costs from the Cost Sheet column, or from the P6 Summary Sheets.

You can perform Cash Flow analysis based on the budgets, forecast projections, and actuals received by using the Planned, Remaining Cost, and Actual Costs received from the Activity Sheet. In summary, for:

Cash Flow curves: CBS Detail, Baseline, and Forecast (Activity level)

Ability to define Baseline and Forecast Cash Flow curves with the Activity Sheet (Activity level) selected as a source for distribution or cost. In this scenario:

The period distribution for each CBS Code will be received at Activity level, from the selected Activity Sheet. The value is the sum of all the planned units for each CBS code by day which it will be used to distribute the costs. The schedule will be disabled once you select Activity Sheet as the distribution source.

The cost distribution for each period can either be calculated based on the units and total cost received from cost sheet column, or based on the cost spread received from Activity Sheet (Activity level).

You can get data either from the current project or the baseline.

Cash Flow curves: CBS Detail, Baseline, and Forecast (Resource level)

Ability to define Baseline and Forecast Cash Flow curves with the Activity Sheet (Resource level) selected as a source for distribution or cost. In this scenario:

The period distribution for each CBS Code will be received at Resource level, from the selected Activity Sheet. The value is the sum of all the planned units for each CBS code by day which it will be used to distribute the costs. The schedule will be disabled once you select Activity Sheet as the distribution source.

The cost distribution for each period can either be calculated based on the units and total cost received from cost sheet column, or based on the cost spread received from Activity Sheet (Resource level).

You can get data either from the current project or the baseline.

Cash Flow curves: CBS Detail, Spends (Activity level)

You can define Spends Cash Flow curves when the Activity Sheet (Activity level) is selected as a source for cost. The value is the sum of all the actual costs for each CBS code per day across the activities.

Cash Flow curves: CBS Detail, Spends (Resource level)

You can define Spends Cash Flow curves when the Activity Sheet (Resource level) is selected as a source for cost. The value is the sum of all the actual costs for each CBS code per day across the activities.

Similar to the P6 Summary Sheet, you can use the Activity Sheet as a source in Cash Flow.

The following table explains the details:

Type	CBS
Baseline (Distribution)	**Activity Sheet (Activity Level)** Sum all the planned units for each CBS code by day which will be used to distribute the costs. You can select either the current project or the baseline. (Schedule disabled) **Activity Sheet (Resource Level)** Sum all the planned units for each CBS code by day which will be used to distribute the costs. You can select either the current project or the baseline. (Schedule disabled)
Baseline (Cost)	**Cost Sheet Column** **Activity Sheet (Activity Level)** Sum all the planned costs for each CBS code by day. You can select if this is from the current project or the baseline. **Activity Sheet (Resource Level)** Sum all the planned costs for each CBS code by day. You can select if the from the current project or the baseline.
Baseline (Schedule)	Schedule is derived from the unit distribution.
Spends (Cost)	**Activity Sheet (Activity Level)** Sum all the actual costs for each CBS code by day. **Activity Sheet (Resource Level)** Sum all the actual costs for each CBS code by day.
Forecast (Distribution)	**Activity Sheet (Activity Level)** Sum all the remaining or at completion units for each CBS code by day which will be used to distribute the costs. (Schedule disabled) **Activity Sheet (Resource Level)** Sum all the remaining or at completion units for each CBS code by day which will be used to distribute the costs. (Schedule disabled)
Forecast (Cost)	**Cost Sheet Column** **Activity Sheet (Activity Level)**

	Sum all the planned costs for each CBS code by day. **Activity Sheet (Resource Level)** Sum all the remaining or at completion costs for each CBS code by day.
Forecast (Schedule)	Schedule is derived from the unit distribution.

Activity Sheet with Resource-Loaded and Cost-Loaded Schedules

For all of the CBS shells, the following Cash Flow curves can get data from an Activity Sheet:

- Baseline
- Forecast
- Spends

When you are defining a Baseline, Forecast, and Spends Cash Flow curves (when the detail level is selected as CBS, based on the schedule type of the source project), the Activity Sheet is available as a source for:

- Distribution
- Schedule
- Cost

The option is not available for Cash Flow curves when the detail level is selected as:

- By Project
- By Summary
- By Contract

The Cash Flow curve properties window enables you to select to get data from:

- **Baseline**
- **General**
- **Schedule sheets**
- **P6 Source**
- **Activity Sheet**

If you select Activity Sheet, then additional options (Cost, Schedule, and Distribution) will be made available, based on the type of activity sheet that you select. In the case Resource-loaded Activity Sheet and Cost-loaded Activity Sheet, the schedule is derived from the source.

The other fields in the Cash Flow curve properties window enable you to select the distribution method and schedule for the Cash Flow curve based on the source of the Activity Sheet.

An Activity Sheet can be linked to more than one source project.

If an Activity Sheet is linked to two or more source projects, then if at least one source project is duration-based and the other source projects are resource-based, or Cost-loaded, then the other fields in the Cash Flow curve properties window will be based on resource-loaded or cost-loaded projects.

When the source project and the **Activity Sheet (Activity level)** are selected as source, the properties window for the Baseline Cash Flow Curve type enables you to select:

- Where to get the original data
- Activity sheet name
- Data type
- Cost
- Schedule and distribution method
- Variance

For Resource-loaded and Cost-loaded schedules, the properties window for the Baseline Cash Flow Curve type enables you to select cost, schedule, and distribution. When you select Activity Sheet, as a source, the **Sheet Name** drop-down field allows you to select one of the following system activity sheets, from the project activity sheets:

- **System Activity Sheet (Activity)**
- **System Activity Sheet (Resource)**

By default, the **System Activity Sheet (Activity)** option will be selected.

> **Note**: The Baseline Cash Flow curve type will display the data from the system activity sheet, if the source is a single project.

In the properties window, the **Project Type** drop-down field enables you to select the following project schedules:

- **Current Project**
- **Baseline Project**

These options are available based on the schedules that have been received.

> **Note**: If you do not receive a Baseline project spread, then the options above will not be displayed.

By default, the **Current Project** option will be selected.

When you select Activity Sheet as the source and **Sheet Name** as **System Activity Sheet (Activity)**, the **Cost** drop-down field allows you to select the following options:

- **Manual**
- **Cost Sheet Columns**
- **Activity Sheet Columns**

The **Cost Sheet Columns** option enables you to display all of the columns of the Cost Sheet. The **Activity Sheet Data Sources** will display the Planned, At Completion, and Remaining Costs, based on the **Sheet Name** that you have selected.

In the scenarios above, the **Cost** options are:

Use the **Cost** option to select one of the cost sources for the Baseline Cash Flow curve type.

By default, the **Manual** option is selected.

The **Schedule & Distribution** drop-down field displays all of the units based on the **Sheet Name** and the project type that you have selected. If you select the **Cost** as **Activity Sheet Columns**, then the **Schedule & Distribution** field drop-down will be disabled while displaying **From Activity Sheet**.

The **Schedule & Distribution** drop-down field displays the following options when you select **Sheet Name** as **System Activity Sheet (Activity)**, and the **Cost** is selected as **Cost Sheet Columns** or **Manual**:

- **Planned Total Units**
- **At Completion Total Units**
- **Remaining Total Units**

By default, the value in the drop-down field will be **Planned Total Units**.

The following table lists the various selections and results:

When Sheet Name is selected as:	Project type is selected as:	Cost options are:	Schedule & Distribution options are:
System Activity Sheet (Activity)	Current Project or Baseline Project	Activity Sheet Columns: ▸ Planned Total Cost ▸ At Completion Total Cost ▸ Remaining Total Cost	From Activity Sheet option selected and disabled.
System Activity Sheet (Activity)	Current Project/Baseline Project	Cost Sheet Columns	Will show following options: ▸ Planned Total Units ▸ At Completion Total Units ▸ Remaining Total Units
System Activity Sheet (Resource)	Current Project/Baseline Project	▸ At Completion Cost ▸ Remaining Cost ▸ Planned Cost	From Activity Sheet option selected and disabled.
System Activity Sheet (Resource)	Current Project/Baseline Project	Cost Sheet Column	Will show following options: ▸ At Completion Units ▸ Remaining Units ▸ Planned Units

The following explains **Forecast** Cash Flow curve properties for when the Activity Sheet is selected as a source:

- Start at the end of the actuals. Use the drop-down field and select the actuals curve. The drop-down field displays all of the actual curves that have been defined with the Cash Flow curve family.

  Note: The Forecast options will be disabled if the Activity Sheet is the source of data.

- Replace the current period Forecast with the actuals on the cut off date.
- For the unassigned amount, the auto-distribution options will be enabled. You can select the redistribution of unassigned amount based on the weighted average calculations.
- The period close settings option is not applicable to Spend, if the period close settings are received from the Activity Sheet.

The following explains **Spends** Cash Flow curve properties for when the Activity Sheet is selected as a source:

In the **Spends** Cash Flow curve properties, you can select the source of cost as Activity Sheet. The **Spends** Cash Flow curve properties has the following Cost and Distribution options, based on the source that you select:

- Where to bring the approved **Spends** data from.

  The **Bring <Spends Curve name> data from** drop-down field displays a list of sources that you can use to bring the actuals cost and distribution. If you select Activity Sheet from the list, then the **Sheet Name** field value will be activated and provides the list of sheet names, both at the Activity level and Resource level.

- Sheet name

  The **Sheet Name** drop-down field displays the Activity Sheets in the project, which is a single activity sheet or the System Activity Sheet. The following are the options available for the **Sheet Name** drop-down field:

  - **System Activity Sheet (Activity)**
  - **System Activity Sheet (Resource)**

- **Cost**

  The Cost drop-down field displays:

  - The business process columns that are available in the **Cost Sheet**.
  - The formula columns which are based on the business process.
  - The **Activity Sheet** column, **Actual Total Cost**, if the **Sheet Name** is selected as **System Activity Sheet (Activity)**.
  - The **Activity Sheet** column, **Actual Cost**, if the **Sheet Name** is selected as **System Activity Sheet (Resource)**.

- **Schedule & Distribution**
  - This option displays **Actual Total Units** when you select **Cost** as the **Cost Sheet** column, and the **Sheet Name** is selected as **System Activity Sheet (Activity)**.
  - This option displays **Actual Units** when you select **Cost** as the **Cost Sheet** column, and the **Sheet Name** is selected as **System Activity Sheet (Resource)**.

- **Variance**

The following table shows the various selections:

Sheet Name	Cost	Schedule & Distribution
System Activity Sheet (Activity)	Cost Sheet Column	Actual Total Units
System Activity Sheet (Resource)	Cost Sheet Column	Actual Units
System Activity Sheet (Activity)	Actual Total Cost	From Activity Sheet text selected and disabled.
System Activity Sheet (Resource)	Actual Cost	From Activity Sheet text selected and disabled.

If you select the **Cost** option, then Unifier draws the **Spends** Cash Flow curve by using the **Actual Cost** spread, **Actual Start Date**, and **Actual Finish Date** for each CBS Code, from the selected Activity Sheet.

The following topics explain the various **Baseline and Forecast Budget (Cost Distribution)** Cash Flow curve properties for when the Activity Sheet is selected as a source:

- **Baseline curve or Forecast curve when Schedule & distribution are derived from the Activity Sheet and Cost is derived from the Cost Sheet**
- **Baseline curve or Forecast curve when Schedule & distribution and cost are derived from the Activity Sheet**
- **Baseline curve or Forecast worksheet when Schedule, distribution, and cost are derived from the Activity Sheet**
- **Baseline curve or Forecast worksheet when Schedule, distribution, and cost are derived from the Activity Sheet**

When you select the original source as Activity Sheet for the **Baseline** Cash Flow curve, the **From** and **To** dates and the spread for each CBS Code will be derived from the selected Activity Sheet and **Project Type**. Unifier uses the spread data from the selected Activity Sheet to draw **Baseline** Cash Flow curve (the period units are coming from the activity spread, and the cost will be derived either from the **Cost Sheet** column, or from the activity spread.

Baseline curve or Forecast curve when Schedule & distribution are derived from the Activity Sheet and Cost is derived from the Cost Sheet:

You can select the following distribution and cost sources when the data is originating from the Activity Sheet:

Distribution	Cost	Cost per CBS Code
Sheet Name: System Activity Sheet (Activity) Project Type: Current Project Data Source: Planned Total Units	Cost Sheet Column: Assigned Budget	Cost for each unit per CBS Code = Total cost from the Cost Sheet column/ The number of total units. Cost for each period per CBS Code = The number of units * Cost per unit.

Example

Monthly time scale: Sample monthly unit spread for CBS Code1 which is coming from Planned Total Units in the above scenario:

	January	February	March	April	May	June	July
CBS Code 1	100	100	100	100	100	100	100

If Total cost per CBS Code1 = $70000, then the cost per unit = $70000/700 = $100 and cost per period will be = 100 * $100 = $10000

Monthly time scale: Sample cost spread for CBS Code1 for each period will be calculated as follows:

	January	February	March	April	May	June	July
CBS Code 1	$10000	$10000	$10000	$10000	$10000	$10000	$10000

The above **Cost** spread sample will be distributed in the **Baseline** Cash Flow curve. If the user selects **Sheet Name**: **Activity Sheet (Resource level)**, with resource units selected as distribution source, and the cost source is coming from the **Cost Sheet** column, then sum all of the Planned units for each CBS Code by day which it will be used to distribute the costs. The Cost per unit will be calculated as shown above. The user should be able to select the units spread from either the current project or the Baseline. The cost distribution will be done in the similar way (as shown above) for the other time periods such as yearly scale or financial periods.

Baseline curve or Forecast curve when Schedule & distribution and cost are derived from the Activity Sheet:

You can select the following distribution and cost sources for the data that is originating from the Activity Sheet:

Distribution	Cost	Cost for each unit per CBS Code
Sheet Name: System Activity Sheet (Activity) Project Type: Current Project Data Source: Planned Total Cost	Cost in this case is coming from Planned Total Cost spread data at Activity level for each CBS Code.	The cost will be calculated in the source Activity Sheet itself using the units and assigned role or resource rate at Activity level. **Cost for each period per CBS Code**: Sum of all planned costs for each CBS Code at activity level.

The sample cost spread for the CBS Code 1, when the selected Planned Total Cost in the above scenario is as follows:

> **Note**: In this case, the cost spread data will be received from the selected Activity Sheet (either from current project or Baseline).

	January	February	March	April	May	June	July
CBS Code 1	$100	$100	$100	$100	$100	$100	$100

If you select the new distribution and cost options from the Activity Sheet, then:

- Both the cost and dates will be received from the Activity Sheet spread data.
- The forecast curve, which is set to begin at the end of actuals curve, shows data from the data date instead of the current period.
- You can select distribution from the Activity Sheet and cost from the Cost Sheet column, or manual, so that the cost spread will be calculated using the total spread units from the Activity Sheet, and the total cost received from the Cost Sheet, or entered manually.
- The Project Type drop-down field and the Data Source field enables you to get the units or cost spread from the Activity Sheet current project or baseline. The values for the fields are Planned, At Completion, and Remaining. By default, the Planned options is selected.
- For the Forecast Cash Flow curve, the spread data (units or costs) comes from Planned, At Completion, and Remaining costs or units. In the Forecast Cash Flow curve the default data source is At Completion. The Forecast Cash Flow curve that is set to begin at the end of actuals shows the actuals received as of current date, from the Activity Sheet or from the Cost Sheet column, and the remaining periods show the spread data received from the Activity Sheet (including the redistributed unassigned amount). The unassigned amount is redistributed in the remaining periods, based on the selected weighted average option.

Baseline curve or Forecast worksheet when Schedule, distribution, and cost are derived from the Activity Sheet:

For each CBS Code in the Baseline or Forecast worksheet, when the source is selected as Activity Sheet:

- From Date will be the earliest date (beginning period from the selected Project spread data). This can be either at Activity level or Resource level based on the sheet name that you have selected. Similarly, the dates come from the current project or baseline.
- To Date will be the latest date (from the selected Project spread data). This can be either at Activity level or Resource level based on the sheet name that you have selected. Similarly, the dates come from the current project or baseline.
- From Date and To Date are read-only.
- The Profile column remains empty and will be read-only.
- The Period data shows the costs distributed from the spread.
- The distributed costs can be calculated when units are coming from the Activity Sheet, only (you can bring the costs from the Activity Sheet). The data will be read-only, similar to the data received from the P6 Summary Sheets.

> **Note**: The project picker will not be available in the worksheet. You can see the project picker when you are allowed to pick a project as source. In this case, the data is filtered (in the graph and worksheet) based on the project.

- The worksheet tab enables you to export.
- The Cumulative and Incremental graphs are available.
- The unassigned amount in the Forecast curve, or Baseline curve, is redistributed in the remaining periods, based on weighted average option that you have selected.

Spends Curve and Data Distribution

The following explains:

- When both cost and distribution is coming from Activity Sheet
- When the total actual cost is derived from cost sheet and schedule/distribution is derived from Activity Sheet

When both cost and distribution is coming from Activity Sheet

You can define the Spends curve to get the actuals spread data from the Activity Sheet for the Resource loaded or Cost loaded projects. When you select the Activity Sheet as a source for the Spends curve, Unifier will derive the distribution and actual costs from the Activity Sheet. The actual spread data will be coming from the current project.

The **From Date** and **To Date** fields are displayed according to the values of the earlier **Actual Start Date** and **Date** which is across the activities, per CBS Code for In progress activities. The **From Date** and **To Date** fields are read-only.

> **Note**: The **Data Date** field value can be in the past, current, or in the future. The Actuals are always shown, until the date of the **Data**.

The Actuals in periods show the spread data coming from the Activity Sheet that you have selected.

The distribution data is read-only.

The Actual spread data as of the data date is displayed in the Forecast curve worksheet if in the Forecast curve properties, the curve is set to begin at the end of the actuals.

The graph shows both the actuals (cumulative and incremental values).

The Actual spread data per CBS Code will be until the data date. For example, if the Actual Start is 02/10/2020 and Data Date is 08/15/2020, then the Actuals cost spread will be shown until the data date (08/15/2020), in the worksheet.

	From Date	To Date	Feb	Mar	Apr	May	Jun	Jul	Aug
CBS Code 1	02/10/2020	08/15/2020	$100	$100	$100	$100	$100	$100	$100

Forecast with Actuals

When you select the source as Remaining Total Cost, or Remaining Total Units, the remaining spread data will be used as source for the Forecast curve. The Actuals will be seen as of data date, and the remaining spread will start from the data date. For example, in the table above, the month of August will show the Actuals as of date + remaining Forecast data ($700 + $100).

	From Date	To Date	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
CBS Code 1	08/15/2020	04/15/2021	$800	$100	$100	$100	$100	$100	$100	$100	$100

When the total actual cost is derived from cost sheet and schedule/distribution is derived from Activity Sheet

You can receive the Actual spread units from the Activity Sheet, and the total payment amount from the **Cost Sheet** column. In this case, the Actual cost can be calculated as the number of actual units * actual cost per unit. See the following example for the monthly time scale:

	January	February
CBS Code 1	50	10
CBS Code 2	0	20

In this example, if the total actual cost (received from the Cost Sheet column) for CBS Code 1 is $6000, and the CBS Code 2 is $1000, then the actual cost per unit will be as follows:

	January	February
CBS Code 1	$50000	$1000
CBS Code 2		$1000

Additional Information:

- If an Activity Sheet has more than one mapped source projects, then Unifier displays the following message: You cannot view the data because the system activity sheet is mapped to more than one source project with different data dates.

  Note: Cash Flow curves will receive data from the System Activity Sheet mapped with multiple source projects, if they all have the same data date.

- If you select an Activity Sheet as a source to one or more Cash Flow curves in the Cash Flow detail curves, then you cannot open the Cash Flow curve in Classic View, and Unifier displays the following message when you try to open a Cash Flow worksheet, or properties, in Standard View: The source for one or more curves is Activity Sheet. You cannot view the curves in Classic View.
- If an Activity Sheet has not been created in the project, then the drop-down field will not display Activity Sheets as an option for the Baseline, Forecast, and Actuals Cash Flow curves.

- The Baseline, Forecast, and Actuals Cash Flow curves show the properties irrespective of the schedule type for the System Activity Sheet. Furthermore, the Sheet Name drop-down field displays manual activity sheets that are created in the project.
- The Cash Flow worksheet does not show the data for the Cash Flow curves that are based on the Activity Sheet, if there is no cost spread or unit spread associated with the activities in the selected Activity Sheet.

P6 Activity Picker in Business Process or Shell Details

When you access a business process form, or a shell attribute form, with activity sheets (both system activity sheet or manual activity sheets) and create a new form, the **Create New <form>** window opens. In this window, you can go to the **P6 Activity Picker** field, click **Activity Sheets**, and open the **P6 Activity Picker** window.

In the **P6 Activity Picker** window, the **Activity Sheets** field drop-down displays a list of all of the active activity sheets, in alphabetical order. In the case where the multiple source projects are integrated with System Activity Sheet, the Activity Sheets drop-down shows the source projects prefixed with "System Activity Sheet," for example: System Activity Sheet - <Source Project1>, System Activity Sheet - <Source Project2>, and so forth. You can switch between the activity sheets and select a specific activity sheet to populate the information on to the business process or attribute forms.

The activities are filtered according to the query conditions defined within the Data Picker configuration in uDesigner (**Company Workspace** > **Admin** mode > **uDesigner** > <Business Process or Shell Attribute form>) where **P6 Activity Picker** field is added.

The form fields that have been set to auto-populate from **P6 Activity Picker** field will get auto-populate from the selected activity attributes.

The form fields that have been set to Reverse Auto-Populate (RAP) to the Activity Sheet will get Reverse auto-populated from the conditions specified in uDesigner or the latest data will be reverse auto-populated (updated) back to the Activity Sheet when "**Send**" in the Workflow, or "**Submit**" in the Non-workflow BP, is used. Similarly, when the user clicks "**Save**" in the shell properties, the updated date will be reverse auto-populated (RAP) back to the activity sheet.

The form data elements that are linked to the attributes form from a **P6 Activity Picker** field will get updated as the P6 activity data gets updated by way of integration.

Auto-population will complete if the **P6 Activity Picker** field is set to auto-populate from another picker, and the **P6 Activity Picker** field is also selected as a source to auto-populate other data elements on the form.

If you delete a selected (picked) activity sheet, then Unifier clears the picker value for the existing records, but the auto-populated values will remain as they are. Similarly, Unifier clears the linked data elements if the selected (picked) activity sheet no longer exists.

Additional Information about P6 Activity Picker

- The P6 Activity Picker is supported when creating records through CSV import and RESTful services.

- When more than one P6 project is associated with the System Activity Sheet, the CSV template, or the RESTful call, accepts the following format for P6 Activity Picker value: <P6 Project ID> ~~ <Activity ID>
- If the Unifier project has manual activity sheets defined, then the following format is allowed in the input CSV file and RESTful services to select an Activity: <Activity sheet Name> ~~ <Activity ID>
- If the Unifier project has System Activity Sheet with multiple projects, or a single source-project, then the following format is allowed in the input CSV file and RESTful services for the selection of Activity ID: <System Activity sheet - P6 Project ID> ~~ <Activity ID>

WBS Picker in a Business Process

The **WBS Picker** field in a business process form has an additional toolbar option (Source) that shows the source value as either P6, Primavera Cloud, or Custom. The Source field drop-down will display "Custom" by default and all of the WBS Codes from the Project WBS Sheet will be shown.

You can switch between different sources (P6 or Primavera Cloud and Custom) if your project has both Project WBS Sheet and System WBS Sheet. The WBS Codes created from the selected source will be shown in the Picker window.

To select the code, the WBS Code shows the entire path.

You can select a unique WBS Code to add a cost transaction.

Earned Value Manager

The **Earned Value Manager** enables you to do the following by using one of the nodes.

- Perform earned value analysis corresponding to the activity sheet in a shell.
- Run the earned value analysis of cost loaded projects directly.
- Generate reports on EVA scenarios.

The **Earned Value Manager** module contains the following nodes:

- **Earned Value Analysis**
- **Earned Value Analysis Report**

To access the **Earned Value Manager** module:

1) Go to your shell in user mode.
2) Click **Earned Value Manager** module to expand.

The following provides details about each node.

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Earned Value Analysis

The **Earned Value Analysis** node (**Earned Value Manager** module > **Earned Value Analysis** node) in Unifier is based on the scheduling set of data (activities and rates) imported from P6 through integration. The **Earned Value Analysis** node allows you to:

- Perform earned value analysis corresponding to the activity sheet in a shell.
- Run the earned value analysis of cost loaded projects directly.

> **Note**: For resource-loaded projects, you must calculate resource and role rates before analyzing earned value and other matrices.

Planned Value (PV), Actual Value (AC) and Earned Value (EV) are required to calculate variances, indexes, and at completion project values. Unifier performs all calculations in the Activity Sheet and rolls up the values to the Earned Value Analysis scenario. The values corresponding to each project, WBS (Work Breakdown Structure) or CBS (Cost Breakdown Structure) are used to plot different graphs, thus providing a visual way to determine the health of projects, and Forecast future outcomes based on the performance indexes.

Earned Value metrics can be categorized as under:

Basic	▸ Planned Value (PV) ▸ Actual Cost (AC) ▸ Earned Value (EV)

Variances	▸ Cost Variance (CV) ▸ Schedule Variance (SV)
Indexes	▸ Schedule Performance Index (SPI) ▸ Cost Performance Index (CPI) ▸ Cost Schedule Index (CSI)
Forecast	▸ Estimate to Complete (ETC) ▸ Estimate at Completion (EAC) ▸ To Complete Performance Index (TCPI) by EAC or BAC

Earned Value Analysis Log Window

The **Earned Value Analysis** log lists the earned value analysis. To access the **Earned Value Analysis** log, go to the shell (**User** mode), click to expand the **Earned Value Manager** module, and click **Earned Value Analysis**.

> **Note**: The location may differ in your implementation based on the Project/Shell **User Mode Navigator** configuration.

You can use the **Earned Value Analysis** log to:

- See a list of analysis.
- Review the following information (on the right-hand pane of the log) about a selected analysis:
  - Preview
  - General
  - Properties
  - Schedule
  - History

The **Earned Value Analysis** log has the following toolbar options:

- **Create** (see below for details)
- **Data Refresh**

  Use this option to manually update the summarized values retrieved from the shell activity sheet. The values in the scenario are not updated automatically if there are changes in the associated activity sheet.
- **Delete**

  Use this option to delete the analysis.

The **Earned Value Analysis** log has the following columns:

- **Name**
- **Description**
- **Activity Sheet**
- **Cost Sheet Column**

- **Graph Type**
- **Performance Measurement Technique**
- **Created By**
- **Created Date**
- **Last Refreshed**
- **Last Modified**

The **Earned Value Analysis** log lists the analysis and each analysis has a *gear menu* ( ) that can be used to:

- **Open**

  To open and view the select EVA.
- **Open Grid Indicators**

  To open the **Grid Performance Indicators** window and color-code the grid values corresponding to the variances and indexes. Depending on the options that you have selected, you can define the range to color-code Project, WBS, or CBS performances. The settings will be applied to all of the sheets in the log. Currently, there is only one EVA sheet and color-code settings apply only to the existing sheet.

  This option is available to all users who have the **Create** permission.

  The **Grid Performance Indicator** window has the following toolbar options:
  - **Add**: To add a new color indicator.
  - **Find on page**
  - **Save**
  - **Cancel**

  The **Grid Performance Indicator** window has the following columns:

  Error (indicator labeled with an x icon)
  - **No.**
  - **EV Metrics**: This is a value selected for the Select Metrics drop-down field. It allows you to select the metrics that you want to color-code. There are no restrictions on the number of scenarios that you can create. The following options are available when you double-click in the cell and activate the drop-down field:
    - **Schedule Variance**
    - **Cost Variance**
    - **Variance at Completion**
    - **Cost Performance Index**
    - **Schedule Performance Index**
    - **Index**
    - **Cost Schedule Index**
    - **TCPI (EAC)**
    - **TCPI (BAC)**
  - **Condition**: This enables you to select the following conditions or values for users who can create criteria for color-coding (double-click in the cell to activate the drop-down field):

- equals
- greater than
- greater than or equals
- less than
- less than or equals
- between

To prevent overlapping of conditions or values, the following priority order is used:

Equals will override any other defined condition.

Between will override any other defined condition, except equals.

In case of less than and less than or equals, the lower value will override the higher value.

In case of greater than and greater than or equals, the higher value will override the lower value.

In case of conflict between a value which comes under less than/less than or equals and greater than or greater than or equals, Unifier displays the message: Overlap in the conditions defined.

- **Text box**: This field (Value 1 and Value 2) can be a single text box or two text boxes (condition = between), depending on the condition selected.
- **Color**: This is a drop-down field that allows you to select the color corresponding to the criteria that you have created. The following are the values (double-click in the cell to activate the drop-down field):
  - Black
  - Red
  - Purple
  - Orange
  - Yellow
  - Green
  - Blue

The *gear menu* ( ) option **Delete** enables you to delete the color indicators.

- **Open Performance % Completion**

  To open and view the historical performance percentage completion values of a project activities against data dates. Unifier uses the values to calculate earned value metrics.
- **Delete**

  To delete the analysis.

The **Earned Value Analysis** log displays the analysis properties on the right-hand pane within the following tabs:

- **Preview**
- **General**
- **Properties**
- **Schedule**
- **History**

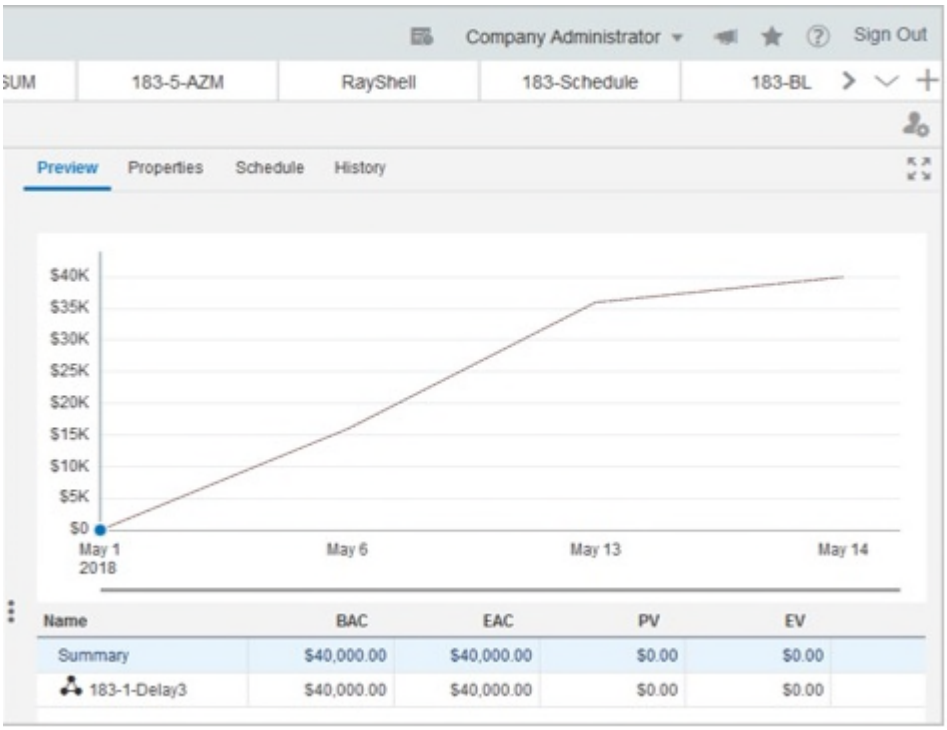
Tip: Click the expand icon, in the right pane, to better view the tab details.

The following explains each tab in details.

Preview Tab

The **Preview** tab enables you to preview the earned value analysis for the P6 projects (cost loaded and resource loaded) in the Activity Sheet without opening the Earned Value Analysis sheet.

- The upper section in the tab displays a graph with consolidated information of PV and AC across data dates. A vertical blue bar represents the last data date.
- The lower section shows the Summary Table with columns displaying EV metrics and derived values: BAC, EAC, PV, EV, AC, ETC, RC, CV, SV, VAC, CPI, SPI, CSI, TCPI(EAC), TCPI(BAC) for projects satisfying the last data date.



General Tab

The **Preview** tab enables you to enter details, export details as template, and import data. To populate the fields in the **General** tab, you can export a template (use the export icon), enter the values in the exported template, ensuring that all columns, or conditions, are completed or met, save the template, and import the template back to Unifier.

Properties Tab

The **Properties** tab enables you to update the following fields:

- **Name**
- **Description**
- **Activity Sheet**
- **Graph Type**
- **Progress Measurement Technique**
- **Template ID**
- **Cost Sheet Column**

  The logical sources will show the entire cost data regardless of the data date.

  Below the Cost Sheet Column field, the **Technique for computing estimate to complete (ETC)** block enables you to select the ETC calculation method.

The **Activity Sheet** and **Name** fields are read-only and populated with the values you entered when creating the earned value scenario.

The **Description** field is an editable field.

The **Cost Sheet Datasource** is editable, so you can update the **Cost Sheet Datasource** for the Earned Value Analysis.

Select **Graph Type** (optional): **Data Date** or **Period Based**

Schedule Tab

The **Schedule** tab enables you to see the frequency for updating the data (**Data Refresh**). The **Schedule** tab is consistent with the **Schedule** tab in other EVM-related places.

In the **Frequency** drop-down list, select from **Daily**, **Weekly**, **Monthly**, or **Quarterly** options, select start and end dates and click **Save**.

Select **None** in the **Frequency** field to discontinue the automatic refresh of the earned value analysis sheet.

History Tab

The **History** tab enables you to see the following information about the past events related to the activity sheet:

- **Action**
- **Requestor**
- **Initiated On**
- **Start Date**
- **End Date**
- **Status**

The **History** tab is similar to the **History** tab in other EVM-related places.

- The grid displays the details of scheduled refreshes only.
- The columns list the action taken (data refresh only), the name of the user who initiated the scheduled refresh, date and time the scheduled job is initiated, start and end dates for each refresh job, and the status of the refresh process (**Completed**, **In Progress**, or **Failed**).

- Select an item to view details in the History Details section below. Click **Refresh** to refresh the status of an ongoing job.

Creating an Earned Value Analysis Sheet

In the **Earned Value Analysis** log window, use the **Create** option to create an EVA sheet by following the details below:

1) Click **Create** to open the **New Earned Value Analysis** window.
2) In the **Name** field, enter a name.
3) In the **Description** field add a description (optional).
4) From the **Activity Sheet** drop-down select an activity sheet.
5) From the **Graph Type** drop-down select one of the following sources:
   a. **Data Date Based**
   b. **Period Based**
6) From the **Progress Measurement Technique** drop-down select one of the following sources:
   a. **Cost Based**
   b. **Unit Based**
7) From the **Template Id** drop-down select one of the Earned Value Analysis (1 through 6).
8) From the **Cost Sheet Column** drop-down select a cost sheet column.
9) Click **Save** to save the newly created EVA sheet.

You can create multiple EVA scenarios with different properties, performance indicator settings, and details in general tab. Each EVA will have a different PPC for the activities under the project. This will enable you to prepare reports, and see the trend depending on their preferences. You are also able to select the EVA sheet from the rolled up data in Cost Sheet.

> **Note**: Except the grid performance indicator, if you select any other action, then Unifier displays the alert asking you to select 1 record.

Earned Value Analysis Sheet

To access the EVA sheet:

1) Go to the **Earned Value Analysis** log window.
2) Click to select your sheet.
3) Click the *gear menu* ( ) to open and select **Open**. The **Earned Value Analysis** sheet opens in new window. Alternatively, you can double-click on the sheet to open the sheet window.

The upper section of the EVA sheet is fixed and viewed across all tabs. It includes the toolbar functions and a dynamic data table. The following explains the elements.

Filter	To adjust the view for particular information.

Print	To print the sheet.
Data Date	This field has a drop-down menu with historical dates. This is available for graph based on **Data Date**.
Projects	This field enables you to open the **Project Picker** window and select a project. The information is constrained with value in Data Date field. The **Project Picker** window enables you to **Find on Page**.
Period	The drop-down list with weekly, monthly, quarterly, half a year, yearly, and if applicable, financial period that has been selected in the shell. This is available for graph based on Period.
WBS or **CBS** drop-down	This toggle option is followed by the corresponding picker in the adjacent field (**WBS Code** or **CBS Code** drop-down). The picker user interface has **Expand**, **Collapse**, and **Find on Page**. the values are constrained by selections in the previous fields. Select the WBS graph and click WBS picker to filter by the OBS. The WBS picker will also display the WBS codes from the Unifier project, if the Unifier project is selected from the Projects Picker.
WBS Code or **CBS Code** drop-down	Click to open and select from **WBS Picker** or **CBS Picker** windows, respectively.
Cost & Rate Type	Displays all rate- and cost-type breakdowns available. It enables you to select a rate-type or a cost-type grouping. Once you select the breakdown rows to filter, then all of the costs will be displayed based on breakdowns that you had selected.
Apply	Click to apply selections in the drop-down fields.
Reset	Click this to remove any zoom or filters applied via the curve picker.

The middle section of the EVA sheet contains a *Dynamic Data Table*.

The headings for the dynamic data table are as follows, depending on the graph type:

- **Project**
  - **All** is displayed when all projects have the same data date.
  - **All (Filtered)** is displayed when there are projects with differing data dates, and projects with the selected data date are filtered in the view.
- **WBS**

  Displays the calculated values for the point plotted in the graph.
- **Cost & Rate Type**

  Displays the cost and rate types in the graph.

The other headings may include:

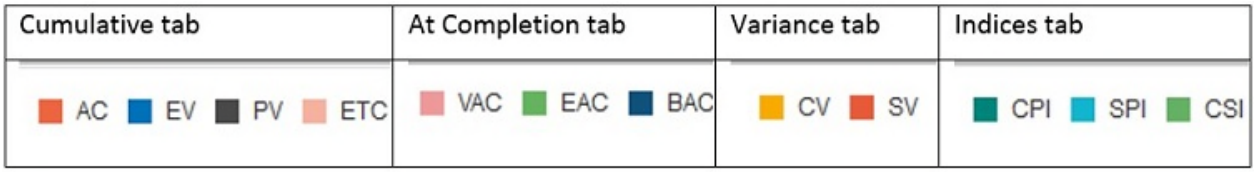
- **Date**
- Related EV metrics labels based on the tab. For example, in the Cumulative tab, the columns show PV, EV, AC, ETC, RC, CPI, and SPI.

The middle section of the EVA sheet contains the following tabs:

- **Cumulative**
- **Incremental** (only applicable to period based graph.)
- **At Completion**
- **Variance**
- **Indices**

Depending on the tab that you select, you get the pertinent graph.

Curve Picker: Filter curves you want to view by selecting or clearing the colored boxes in the legend.



Unit Based

Earned Value Analysis - Graph

All of the **Planned Units** and **Actual Units** will be rolled-up for **Project**, **WBS**, and **CBS** from the **Activity Sheet**. The EV value will be calculated using the following formula:

```
EV Units = BAC Units* PPC
```

Earned Value Analysis - Grid

For the Graph Type Unit based, the Grid will display units instead of costs (Planned units, Actuals Units, and so forth). The Variances, Indices, and At Completion values will also be updated based on the values.

Earned Value Analysis - Top bar

For the Graph Type Unit based, the bar will display units instead of costs (Planned units, Actuals Units, and so forth). he Variances, Indices, and At Completion values will also be updated based on the values.

Remaining Cost > Remaining Cost/Units

Cost Sheet

After you create multiple EVA graphs, the cost sheet drop-down menu displays all the cost-based graphs.

Roll up Actuals to EVA

The **Amount** and the **uuu_quantity** fields are going to rollup to the WBS Sheet. They will be used to feed into the **Actuals** in the EVM sheet. Unlike the existing column in the Cost Sheet that creates a new row in the EVM sheet, the new BP will rollup to the WBS and CBS for a P6 project. Since Unifier captures units in the EVM, you can add uuu_quantity and have the units roll up to the EVM sheet.

Cost Based EVA Scenario

In the EVA Sheet, The **Actuals** amount will be rolled up by associated WBS when you select a new Cost-type BP (CBS or WBS) column as the Cost Sheet column source. You can see the **Actuals** associated with the selected WBS codes by using filtering.

When you filter by WBS codes in the EVA, the **Actuals** data will be in two separate rows (both Unifier and P6 Actuals).

By default, in the **Project** view, all the **Actuals** (including the actuals from cost sheet column source) are displayed.

The **Actuals** amount will be rolled up by associated CBS when filtered by CBS codes, in Cost-based EVA scenario. When selected filter by CBS or by P6 Projects, you can see the **Actuals** for Unifier and P6 for the filtered CBS codes, separately.

Filtering by CBS codes in EVA Sheet

The Rolled up Actual cost will be displayed in the EVA Sheet for the selected CBS codes only when there is a valid CBS-WBS combination allocated for the line item. That is to state, the Rolled up Actual cost will be displayed in the EVA Sheet for selecting any CBS assigned to receptive Activity and selecting WBS code from the same p6 project.

Filtering by WBS codes in EVA Sheet

The Rolled up Actual cost will be displayed in the EVA Sheet for the selected WBS codes even when there is an invalid CBS-WBS combination allocated for the line item. That is to state, the Rolled up Actual cost will be displayed in the EVA Sheet for selecting any CBS assigned to receptive Activity and selecting WBS code from the the same, or different, p6 project.

Units Based EVA Scenario

The WBS Sheet column field is available in unit based EVA scenario as the Actual source. The list of sources available are all WBS Sheet columns which are of type SYS BP Decimal Amount. You can select any of the new CBS- or WBS-type BP columns (which are of SYS BP Decimal Amount added in WBS Sheet as WBS Sheet column source).

The Formula columns which are based on CBS- or WBS-type BP of SYS BP Decimal Amount should are available to select.

By default, the Actual Units (per project) include the quantity (rolled up from new Cost-type BP) when the Actual Units are selected as WBS Sheet column source.

The Actual Units (uuu_quantity) by associated WBS codes are displayed when you filter the WBS codes.

Similarly, when CBS codes are filtered, the associated Actual Units are displayed. The same is applicable when other Cost-type BPs are also selected as the Cost Sheet column source. The graph includes the Actual Units from WBS Sheet column source.

Cumulative Tab

Like the **Preview** tab in the log, the **Cumulative** tab displays an upper graph and a bottom summarized table in the **Cumulative Values and Indices** section. It shows data as of the last **Data Date**.

> **Note**: All other tabs display a graph only.

As you move the cursor across the curves in the graph, a flagged indicator displays the curves, dates and values at the selected point in a curve. The indicator is color-coded for specific curves as per the legend. The tool-tips provide the expanded form of acronyms. The last data date is represented by a vertical blue bar. If available, data dates preceding the last data date are displayed. After the last data date, weekly intervals are indicated along the X-axis for the duration of a year.

The zoom control is enabled by using the mouse wheel; values on X- and Y-axes remain static. You can also drag the zoomed area along the X-axis; the X-axis intervals remain constant.

The **Cumulative Values and Indices** section toolbar has **Export**, **Find on Page**, and a toggle **Expand** or **Collapse** buttons. While the columns present values for earned value metrics and derivatives, the rows list the projects for the selected data date in separate rows.

Depending on the selection that you have made in the filter, the grid that is displayed follows theses scenarios:

Scenario One:

If you select Project with CBS filter:

The Summary (filtered) shows the actuals in the activity sheet that corresponds to the P6 project and the CBS selected from the filter.

The Summary (P6) displays the actuals that corresponds to CBS across all the P6 projects (from the activity sheet) until the Data Date that has been set or selected in the filter.

The Summary (Unifier & P6) displays consolidated amount from actuals (summary p6) and the sum of cost sheet actuals for CBS corresponding to the column selected during the EV creation until the data date selected in the filter.

Scenario Two:

If you select Project with WBS filter:

No additional summary row.

Period based graph

EVA Graph (Cumulative, At Completion, Indices & Variance)

If a user selects Graph Type as "Period based" for a particular Earned Value analysis scenario then:

The data date drop-down does not appear in the graph. Instead, a new drop-down is displayed (Periods) with the following options:

- Weekly
- Monthly
- Quarterly
- Yearly
- <Financial period name> selected in shell details tab (if applicable)

If the graph type is Periods, you can select multiple projects with same or different data date. Any Actual value of other projects, after the least data date among the projects, will be presented as Forecast.

For the existing users, when plotting the graph based on periods, the old financial period data, using the current baseline, is displayed.

> **Note**: The data for each project is locked until the project data date.

Also, the data which is being displayed in the graph will be updated according to the financial period that is selected.

> **Note**: The graph shows weekly data points on x-axis and filters the project with same data date.

If you have selected the period type as financial period, then the data for all, or filtered, projects will be consolidated and plotted in the graph. The Data points on the x-axis will be the period end date.

The following two scenarios explain the results of your selections:

Scenario One:

If the user selected weekly, monthly, quarterly, or yearly from the drop-down, then the start date of the first sub period will be the least project start date across all projects. The last sub period will be determined based on the last data date across all projects. In other words, the end date of last sub period should be greater than the last data date across all projects.

Scenario Two:

If the user has selected a financial period defined under Standards & Libraries, then the graph will only display the data between the first sub period and the last sub period. Everything else will be filtered out of the graph.

Incremental Tab

In Unifier, you can generate the earned value analysis graph based on the data date corresponding to a P6 Project. The graph shows the EV and Actuals data from project start date until the most recent data date, and every data date which lies in between.

You can also plot the graph based on periods.

EVA Graph (Incremental)

If you select Graph Type as "Period based" (for a particular Earned Value analysis scenario), then an additional tab for incremental graph will be displayed along with other graphs. The tab for Incremental graph will show the incremental curves for planned value, earned value, actual cost, and forecast for the filters selected in the pickers. In other words, each X-axis data point shows the consolidate data since last data point. The Y-axis displays the amount (in hundreds, thousands, millions, etc.), and the value is determined by the graph dynamically showing the best possible representation based on the data available. The maximum and minimum values are determined by the maximum or minimum values as explained above.

Pre-requisites

You must have at least one Financial Period defined under Standards & Libraries (Company Workspace > Standards & Libraries > Period Structure).

You must have selected the relevant financial period in the shell options (Shell Details > Options > Financial Period).

Once you have performed the steps above you will be able to select the Financial Period from a newly created drop down “Period” in EVA graph if they select graph type as "Period based" screen as follows:

Create

Click Create and select the Graph type.

Properties

In the Properties tab, click on the Graph Type drop-down menu and select your option:

- Data Date Based

  Enables you to continue using the data date to filter projects.
- Period Based

  Enables you to see the graph in Earned Value Analysis based on the financial period selected in the shell details tab (weekly, monthly, quarterly, or yearly).

EVA Graph (Cumulative, At Completion, Indices & Variance)

If you select the Graph Type as "Period based" for a particular Earned Value Analysis scenario, then:

- Except a custom financial period, the x-axis points for any period will be the period start date.
  - The start point will be the earliest project start date.
  - The end point will be the farthest project end date.
- For custom financial period, the start and end points are period start and end points.

- Data date drop-down menu will not appear in the graph. Instead, the Periods drop-down menu is displayed that contains the following options:
  - Weekly
  - Monthly
  - Quarterly
  - Yearly
  - <Financial period name> selected in shell details tab (if applicable)
- If the graph type is Periods, then you can select multiple projects with the same or different data date. The Actual value of other projects (after the least data date among the projects) will be treated as Forecast.
- For existing users, when plotting the graph based on periods. The old financial period data is generated through using the current baseline. Unifier freezes the data for each project until the project data date. Also, the data which is being displayed in the graph will be updated according to the financial period selected. The graph shows weekly data points on x-axis, and the graph filters the project with same data date.

If you select the period type as financial period, then the data for all or filtered projects will be consolidated and plotted in the graph. Data points on the x-axis will be the period end date. The following two scenarios explain your selections:

Scenario one

If you have selected weekly, monthly, quarterly, or yearly from the drop-down, then the start date of the first sub period will be the least project start date across all projects. Last sub period will be determined based on the last data date across all projects. In other words, the end date of last sub period should be greater than the last data date across all projects.

Scenario two

If you have selected a financial period define under Standards & Libraries, then the graph will only displays the data between the first sub period and last sub period. Everything else will be filtered out of the graph.

EVA Graph (Incremental)

If you select the Graph Type as "Period based" for a particular Earned Value Analysis scenario, then an additional tab for Incremental graph is displayed along with the other graphs. A new tab for Incremental graph displays the incremental curves for planned value, earned value, actual cost, and forecast for the filters selected in the pickers. In other words, each x-axis data point displays the consolidate data since last data point. The y-axis displays the amount (in hundreds, thousands, millions, etc.), and the amount is determined by the graph dynamically to show the best possible representation based on the data available. The maximum and minimum value is determined by the maximum or minimum values as explained above.

At Completion Tab

View VAC, EAC, and BAC curves in the graph. Use the graph features as in the **Cumulative** tab.

Variance Tab

View CV and SV curves in the graph. Use the graph features as in the **Cumulative** tab.

Indices Tab

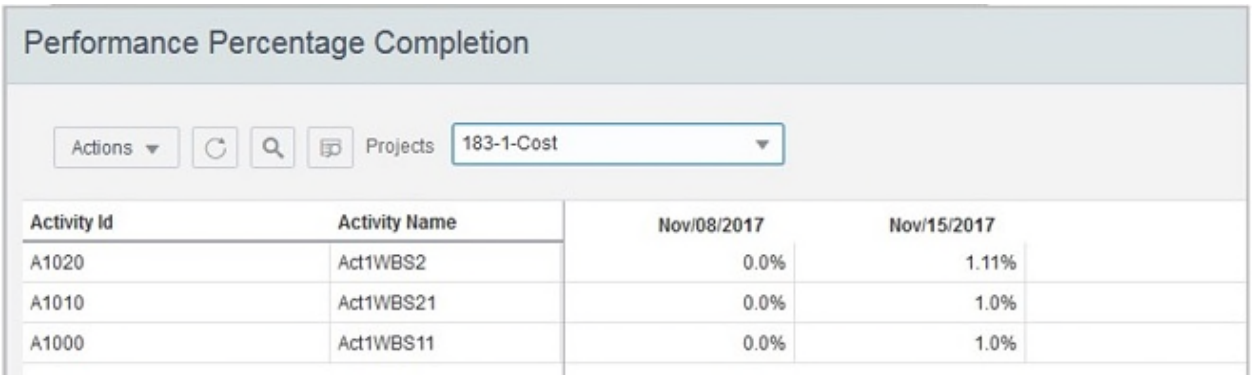
View CPI, SPI, and CSI curves in the graph. Use the graph features as in the **Cumulative** tab.

Performance Percentage Completion Sheet

Click the corresponding button to open the **Performance Percentage Completion** sheet overlay in the EV Analysis log.

During each synchronization, the performance percentage completion value of an activity gets updated from P6. Unifier stores the values against corresponding data dates, which are then used to calculate earned value metrics.

> **Note**: The functionality is only applicable to the current schedule of a project.



Performance Percentage Completion Sheet - Toolbar

The following explains the toolbar options, columns, and rows:

- **Actions**
  - **Export CSV**
  - **Update Data**

    To update historical performance percent completion for the activity against any date, excluding Data Date coming through P6.
    - **Export CSV Template**
    - **Import CSV**

      Columns imported through **Import CSV** will be marked with an "*" icon.

- **Refresh**: Click **Refresh** to update the performance percentage completion values from the latest synchronization.
- **Find on Page**
- **Projects** drop-down: Select a project to view the performance percentage completion for each activity against data dates.

Columns

The left pane of the grid displays **Activity Id**, and **Activity Name**. The right pane displays a series of data dates based on the frequency of updates in P6.

Rows

The left pane of the grid displays display the activities of the project selected in the **Projects** drop-down. The right pane displays % values against data dates for each activity.

Roll Up Earned Value Analysis to Cost Sheet

The **Column Properties** window enables you to select your cost sheets.

The following table explains the fields and options in the **Column Properties** window:

Field	Description
Name	Sheet name.
Datasource	The name of the source.
Element	To select the data element.
Entry Method	The options and sub-options are: **Manual Entry** ▸ **Direct entry into cell** ▸ **Line item content** **Sheet** ▸ **Type** (See below for details) ▸ **Name** (See below for details) ▸ **Column** (See below for details) **Formula**
Data Format	The options are: ▸ **Currency** ▸ **Percentage** ▸ **Decimal**
Display Mode	The options are: ▸ **Show** ▸ **Hide**

Total	The options are: ▸ **Blank** ▸ **Sum of All Rows** ▸ **Use Formula Definition**
Column Position After	To indicate where the column must be positioned
Delete	To delete the column properties.
OK	To accept changes.
Cancel	To cancel changes.

The **Type** field enables you to select the following:

- Worksheet
- Earned Value Analysis (EVA)
- Activity Sheet

The **Name** field displays the name of the Earned Value Analysis (1 to 6).

If there is no data or sheet for that **Name** field, then the value will be zero in the Cost Sheet for that column. Once you refresh the EVA Sheet, the data will be rolled up to the Cost Sheet as a column.

The **Column** field enables you to select the currency and decimal fields from the Earned Value Analysis that are available to be rolled up into the Cost Sheet as a column.

Earned Value Management (EVM)

- pv (Planned Value - cost)
- ev (Earned Value - cost)
- ac (Actual Cost - cost)
- cv (Cost Variance - cost)
- sv (Schedule Variance - cost)
- bac (Budget At Completion - cost)
- eac (Estimate at Completion - cost)
- vac (Variance at Completion - cost)
- etc (Estimate to Complete - cost)
- forecast (Forecast - cost)
- remaining_cost (Remaining Cost - cost)

Note: The decimal type Data Element (DE) is available in the cost

formula.

The **Column Name** field, in the **Cell Details** window, displays the DE field label in the respective Earned Value Analysis.

Note: You can have from 1 to 100 predefined cost DEs created in the Cost Sheet.

Earned Value Analysis User Defined Report (UDR)

You can create User Defined Reports (UDRs) from the data present in your Earned Value Analysis.

The Create User-defined Report window enables you to define the following fields for your UDR (template or individual reports):

- **Data Type**
- **Element**
- **Report Type**
  - **Tabular**
  - **Cross Tab**
  - **Summary**
  - **Alert**
- **Access Type**

Note: The same fields will be available for permission-based data sources.

The elements (Currency/Decimal), in OOTB Earned Value Analysis along with any user-defined column will be available as DEs for your report.

Note: Only the data elements available in the Earned Value Analysis Sheet will be available in the respective UDR.

Earned Value Analysis Report

The **Earned Value Analysis Report** node (**Earned Value Manager** module > **Earned Value Analysis Report** node) in Unifier enables you to access and work with the EVA reports.

Earned Value Analysis Reports Log Window

The **Earned Value Analysis Reports** log window enables you to create and run reports. The **Earned Value Analysis Reports** log window contains the following toolbar options:

Create	This option is available for users with Create permission, at the node level. See the Creating an Earned Value Analysis Report for details.

Delete	This option is available for users with Create permission, at the node level.
View	This option enable you to view all, create a new view, and manage views. By default, the **All** view is selected. To define new views, click **Create New View**. You can use the **Manage Views** option to manage the user-defined views.
Edit View	To change the view of the log.
Refresh	This option enable you to refresh the report log and view the latest report definitions that have been added.
Print	This option enable you to print the report log information using the options available.
Find on Page	Enables you to conduct a text-based search for each column in the log.

The **Earned Value Analysis Reports** log window contains the following columns which correspond to the fields that you have included in the report when you created one, in addition to several more fields:

- **Name**
- **Description**
- **Earned Value Analysis Scenario**
- **Report Template**
- **Owner**
- **Last Run**

The **Earned Value Analysis Reports** log window contains the following tabs:

General	Enables you to both view and change some of the fields in the report. When you alter report detail in the **General** tab, you must save or save and run the report to ensure that your changes have been applied.

Schedule	Enables you to: ▸ **Set Frequency for Scheduled Report Runs** ▸ Determine the **Output Information** The day value will reset to one, if you enter a numeric value that is out of range. The report will run on day twentieth of the first month of every quarter, if: ▸ You select a day between the first and thirty-first. ▸ You select the twentieth day of each quarter. The email subscription option enables you to control the type of Unifier-related email notifications that you want to receive. In the user **Preferences** window (**User control panel** > **Preferences** > **Email Subscription** tab) you can subscribe to receive emails when reports are scheduled in the EVM reports (**Earned Value Analysis Reports** > **Results from scheduled EVA reports**). This option will be available only when the **Earned Value Manager** module is loaded in the company. When you select the option and have a valid email address, then you will receive email notification with the report attached. The format of the report is according to the format selected when the scheduled report was set to run. The email received contains the report (as an attachment, in Excel format) with the following information: ▸ Source Name: Displays the shell name. ▸ Report Name: Displays the EVA report name. ▸ Description: Description provided in the EVA report properties. ▸ Unifier Login: To go to the Unifier login page. The **User Preferences Template** window (**Company Workspace** > **Admin** mode > **Standards & Libraries** > **User Preferences Template**), **Preferences** tab, displays the option related to the Earned Value Report scheduled runs (**Earned Value Analysis Reports** > **Results from scheduled EVA reports**). Unifier uses the active user's preferences template when creating new users, as default. The other templates can be used to update preference settings for existing users.
History	Enables you to see the following information: ▸ **Run Date** (the date the report was generated) ▸ **Run By** (who generated the report) ▸ **Status** (if the report is generated successfully)

Each report row has a *gear menu* ( ) that enables you to run a report or delete a report:

- **Run Report**
  You must have the View permission in order to be able to run the report, using the *gear menu* ( ). This option is shown when you select one report at a time. The report will be displayed using the format saved in the properties.

- **Delete**

  You must have the Full Access and the Create permissions in order to be able to use the delete option. You can select one or more reports to delete.

Creating an Earned Value Analysis Report

Click **Create** in the **Earned Value Analysis Reports** log window to open the **Earned Value Analysis Report** window.

1) In the **Name** field, enter a descriptive name.
2) In the **Description** field, enter description.
3) From the **Earned Value Analysis Scenario** field, select a scenario. The drop-down menu lists all of the earned value scenarios that have been defined in the project. You can select one scenario, only. Also:
   - For format1 to format3, the cost-based earned value scenarios are available to select.
   - For format4 you can select a unit-based earned value scenario.
4) From the **Report Template** field, select a template from the drop-down lists all of available templates:
   a. CONTRACT PERFORMANCE REPORT - FORMAT 1 (Based on WBS)

      Format 1 defines cost and schedule performance data by product-oriented Work Breakdown Structure (WBS).

   b. CONTRACT PERFORMANCE REPORT - FORMAT 2 (Based on OBS)

      Format 2 defines cost and schedule performance data by the contractor's organizational structure.

   c. CONTRACT PERFORMANCE REPORT - FORMAT 3 (Baseline Changes)

      Format 3 defines changes to the Performance Measurement.

      Baseline (PMB).

   d. CONTRACT PERFORMANCE REPORT - FORMAT 4 (Staffing Forecasts)

   e. Format 4 provides staffing forecasts for correlation with the budget plans, cost, and schedule estimates.

   f. CONTRACT PERFORMANCE REPORT - FORMAT 5 (Analysis report)

      Format 5 is a narrative report used to provide the required analysis of data contained in Formats 1-4

5) If you want to include additional parameters in your report, click to select the **Set Parameters** field and proceed to select additional parameters from the options provided. When you select a period type, Unifier displays the last 10 periods, starting from the current period, for you to select.
6) When finished, click one of these options:
   a. **Create** to create the report and run it later.
   b. **Create & Run Report** to create the report and run it immediately after.

Note: The staffing numbers are rounded to the closest decimal; however, the total is calculated per actual value (the numbers before being rounded).

Record-Level Permissions

The following explains the record-level permissions for Earned Value Analysis Reports.

To see the record-level permission:

1) Go to your project or shell (User mode).
2) Click **Earned Value Manager** to expand.
3) Click **Earned Value Analysis Report** sub-node to open the **Earned Value Analysis Reports** log window.
4) Click to select a record.
5) On the right-hand pane, click **Permissions** tab.

The **Permissions** tab displays all the participants and their permission details.

To assign permissions:

1) Go to your project or shell (User mode).
2) Click **Earned Value Manager** to expand.
3) Click **Earned Value Analysis Report** sub-node to open the **Earned Value Analysis Reports** log window.
4) Click to select a record.
5) Click **Actions** drop-down menu and click **Permissions**. The **Permissions** window opens.

   Alternatively, you can click on the *gear menu* ( ) of the select record and click **Permissions**.

In the **Permissions** window, click the select icon of the **Add** field to open **User and Group Picker** window (if you know the name, you can enter the name in the field--type ahead). This enables you to select the user or a group of users who need permission. In this window, use the **View** field to find users or groups and follow the prompts. When finished, ensure that you click **Done**.

In the **Permissions** window, you will see the following columns:

- **Name** (locked column)
- **Company** (locked column)
- **Select All**

  To select all of the permission options.
- **Modify Permissions**

  If selected, then the Edit Report and View & Run options would also be selected.
- **Edit Report**
- **View & Run**
- **Remove**

You must save your changes before you can use the **Remove** option. The **Remove** option is not available if you are the owner of the selected record.

Assigning permissions to a single report can be done by a user who is the report owner or has full access permission.

Assigning permissions to multiple users or groups is allowed if you are the report owner, or have the required permissions, at the module level. Similar to assigning permissions on a single record, you can select multiple records from the **Earned Value Analysis Reports** log window, click **Actions** drop-down menu and click **Permissions**.

Additional information about record-level permissions:

When you assign permissions to multiple reports, you are adding new permissions.

When you select multiple reports to assign permissions, you must be the reports owner, or have full access permission for all the selected reports.

If you have view permission at module level, or can only run permissions, then clicking the **Permissions** option (**Actions** > **Permissions**) opens the view only permission window. In this case, the columns are disabled and the **Remove** option is not available.

If you highlight, for example, the first three rows but select a permission option on the fifth row, then the fifth row option will get selected and highlighted.

Permissions

You can assign Earned Value Management permissions in the following permissions-related modules:

- **Permission Templates** under **Standards & Libraries**
- **Access Control**, and **Users** / **Groups** under **User Administration**

Permissions correspond to the:

- **Activity Manager** and it sub-nodes
- **Earned Value Analysis** in shell (**User** mode)
- **Master Rate Sheet** in the **Company Workspace** (**User** mode).

In addition, Gateway configuration permissions are required to set up the synchronizations at the **Company Workspace** (**Admin** mode level).

Assumptions: Permissions for other related areas -- **Exchange Rates** under **Standards & Libraries** are granted at the **Company Workspace** (**Admin** mode level), and permissions to modify properties of the shell types under Company Sponsored Shells are also given.

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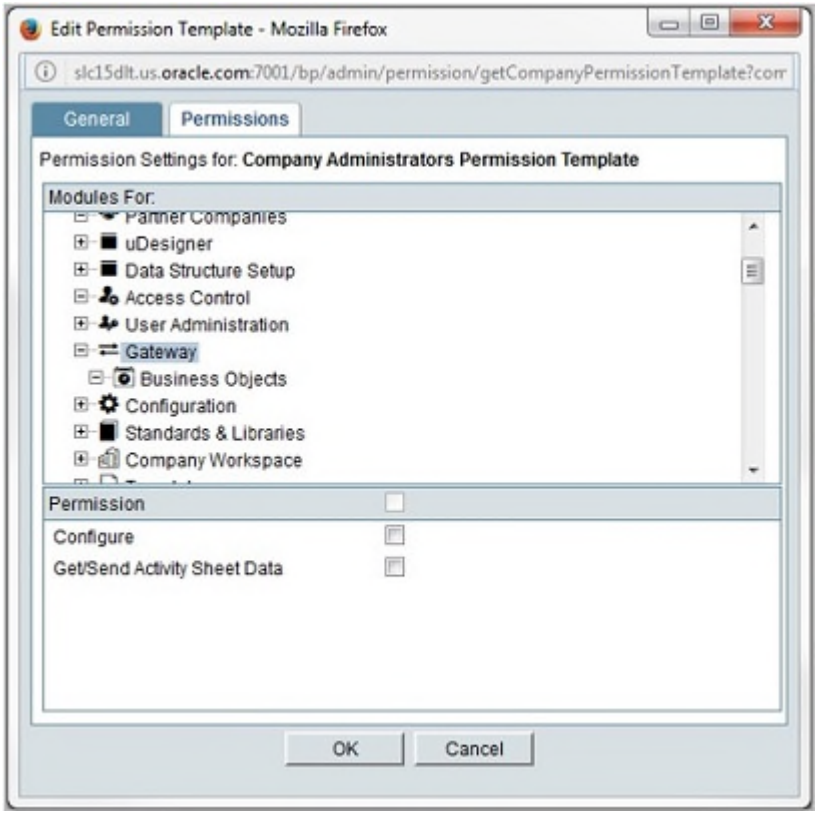
Gateway Permissions

The permissions for **Gateway** are as follows:

- **Configure**

- **Get/Send Activity Sheet Data**



Master Rate Sheet Permissions

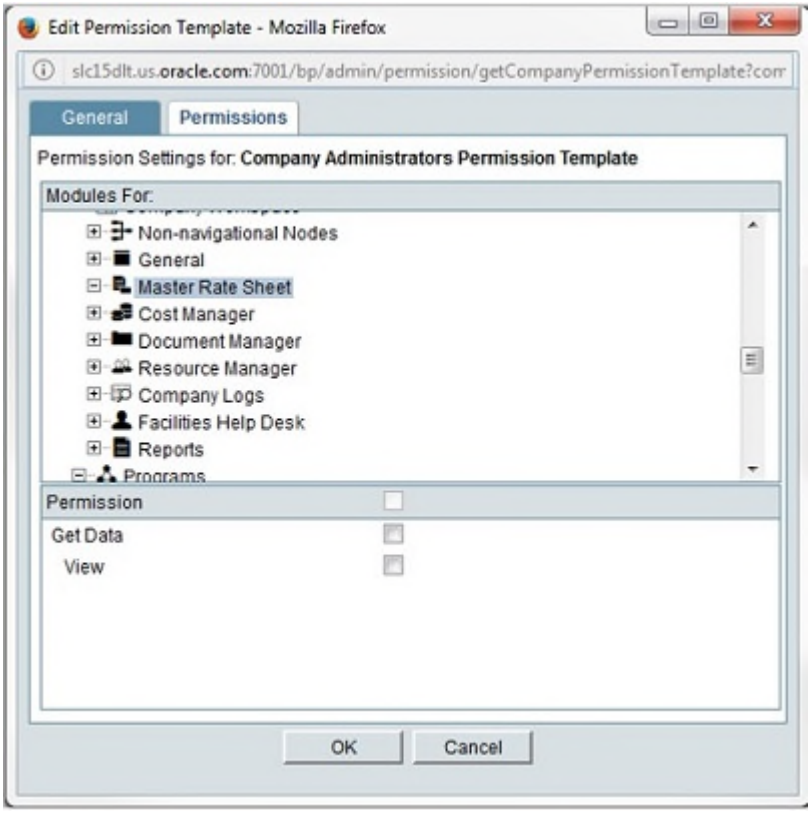
The permissions for **Master Rate Sheet** are as follows:

- **Get Data**

  If this permission is enabled, user will be able to take action "Get Data" for Master Rate Sheet (Company Workspace) which will update the roles and resources list from P6. When Get Data is checked, the "View" permission gets checked automatically. User has the ability to deselect the "View" permission. This automatically deselects "Get Data" permission. Thus, the user cannot have "Get Data" permission without the "View" permission but can have "View" permission without the "Get Data" permission.

- **View**

If this permission is enabled, the user will be able to view the Rate Sheet node at company workspace along with the Master Rate Sheet present in that node (if applicable).



Activity Sheet in Shell (User Mode) Permissions

The permissions for **Activity Sheet** in a shell (**User** mode) are as follows:

- **Send Data**
- **Get Data - All**

  If this permission is enabled, user will be able to take action ‘Get Data" for system Activity Sheet which will update the system Activity Sheet from P6. When Get Data is checked, the "View All" and "View Current" permissions are not selected automatically.

  User has the ability to deselect the "View" permission. This automatically deselects "Get Data" permission. Thus, the user cannot have "Get Data" permission without the "View" permission but can have "View" permission without the "Get Data" permission.
- **Get Data - Current**

  If this permission is enabled, when user clicks on **Get Data**, the user can only get the current project data from P6, the user cannot get the baseline project data from P6.
- **Modify - All**

  If this permission is enabled, then the user can modify both baseline and current P6 project data.

If **Modify - All** permission is given, the user will be given view All permission implicitly even if the permission has not been selected.

- **Modify - Current**

  If this permission is enabled, then the user can modify the current P6 project data, only.

  The user will be given **View - Current** permission implicitly even if the permission has not been selected.

- **View - All**

  If this permission is enabled, then the user can view both baseline and current P6 project data, present in the **Activity Sheet**.

- **View - Current**

  If this permission is enabled, then the user will be able to view the Activity Sheet node along with the Activity Sheet present in that node (if applicable).

- **Full Access**

  If this permission is enabled, then the user will get full access to the Activity Sheet with all the permissions mentioned above. In addition, the user can see the schedule tab, where the user can schedule the Gateway synchronizations.

- **Create Manual Activity Sheets**

  If this permission is enabled, then the user will be able to:

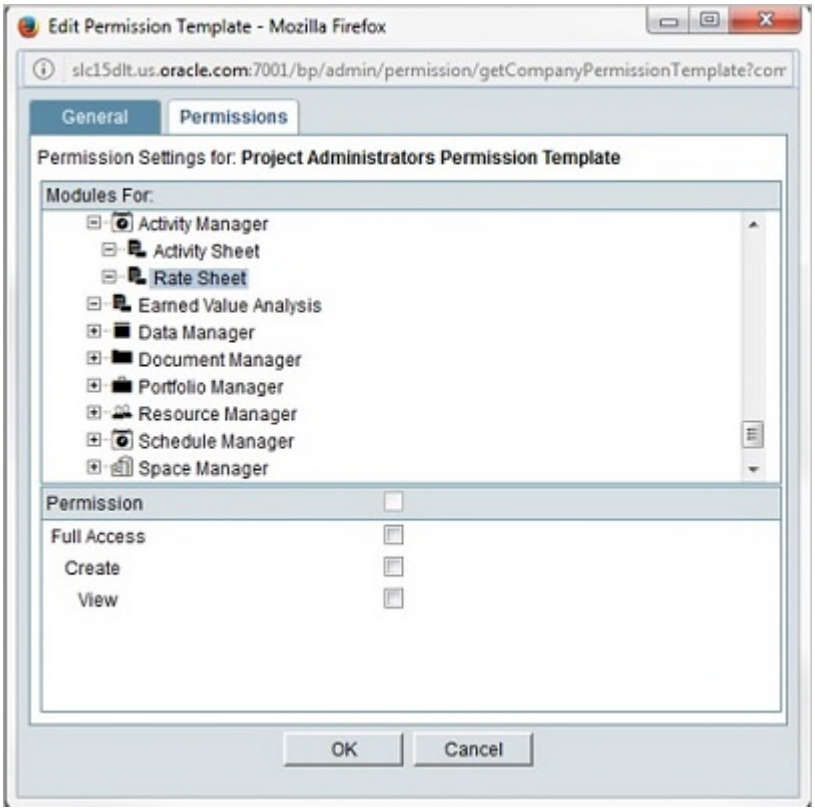
  - Create, update, delete, and view all sheets.
  - Receive and send the scheduling and resource spread data into the Activity Sheet from P6 or Primavera Cloud.

Rate Sheet in Shell (User Mode) Permissions

The permissions for **Rate Sheet** in a shell (**User** mode) are as follows:

- **Full Access**
- **Create**
- **View**

When checked, this will allow the user to view the **Rate Sheet** node and the Rate Sheets present in the associated log.



Earned Value Analysis Permissions

The permissions for **Earned Value Analysis** are as follows:

Permission	Description
Create	This will allow users to create an earned value analysis record. When 'Create' is checked, then "Copy, Refresh & View" permissions gets checked automatically. User has the ability to "deselect" the "Copy, Refresh & View" permission. This automatically deselects "Create" permission". Thus, the user cannot have "Create' permission without 'Copy, Refresh & View" permission but can have "Copy, Refresh & View" permission without the "Create" permission.
Copy	This will allow users to create a copy of an earned value analysis. When 'Copy' is selected, the "Refresh & View" permission gets checked automatically. User has the ability to 'deselect' the "Refresh & View" permission. This automatically deselects "Copy permission". Thus, the user cannot have "Copy" permission without the "Refresh & View" permission but can have "Refresh & View" permission without the "Copy" permission.

Data Refresh	If this permission is enabled a user can refresh the Earned value analysis data from the corresponding Activity Sheet. When selected, the "View" permission gets checked automatically. User has the ability to "deselect" the "View" permission. This automatically deselects "Refresh' permission. Thus, the user cannot have "Refresh" permission without the "View" permission but can have "View" permission without the "Refresh" permission.
View	When selected, this will allow the user to view the Earned Value Analysis node with the list of records.

To grant permissions:

1) Go to **Company Workspace** (**Admin** mode).
2) On the left-hand Navigator click **Access Control** to open the **Access Control** log window.
3) On the **Access Control** log window click **User Mode Access** to expand.
4) Click **Shells / Projects (Standard)** to expand.
5) Click **Earned Value Manager** to expand.
6) Click **Earned Value Analysis** to open the **Module Permission Settings** window (**Permission Settings for: Earned Valued Analysis**).
7) Click **Add** to open the **Permission/Access Control** window.
8) Click **Add Users/Groups** and add users, or groups, or both.
9) In the **Permission Settings** block select the necessary permissions.
10) When finished, follow the prompts to close windows and complete granting permissions.

Earned Value Analysis Report Permissions

The permissions for **Earned Value Analysis Report** are as follows:

Permission	Description
Full Access	User or Groups with Full Access permission are allowed to create new reports, modify, run, and delete reports under Earned Value Analysis Reports. The log displays all of the reports that are created.
Create	User or Groups with Create permission can create, modify, and delete reports that have been created by the users. The log displays all of the reports that are created.
View	User or Groups with View permission can view the Earned Value Analysis Report node.
View All Reports	User or Groups with View All Reports permission can view and run all the reports that have been created by the users. User or Groups with View All Reports permission cannot modify the existing reports or create new reports.

To grant permissions:

1) Go to **Company Workspace** (**Admin** mode).
2) On the left-hand Navigator click **Access Control** to open the **Access Control** log window.
3) On the **Access Control** log window click **User Mode Access** to expand.
4) Click **Shells / Projects (Standard)** to expand.
5) Click **Earned Value Manager** to expand.
6) Click **Earned Value Analysis Report** to open the **Module Permission Settings** window (**Permission Settings for: Earned Valued Analysis Report**).
7) Click **Add** to open the **Permission/Access Control** window.
8) Click **Add Users/Groups** and add users, or groups, or both.
9) In the **Permission Settings** block select the necessary permissions.
10) When finished, follow the prompts to close windows and complete granting permissions.

OBS Sheet Permissions

To grant access, go to **Access Control** and select the **OB Sheet**.

The following permissions are available:

- **Create and Add Users to Project** - Allow user to bring in active users from template or from an existing project while creating OBS Sheet from template or from project.
- **Create** - Allow users to create an OBS sheet by copying from template, project or new structure from scratch.
- **Modify** - Allows users to edit an existing structure
- **View** - Allow users to view the OBS sheet
- **Hide Audit Log** - Allow users to see audit if the permission is not enabled.

WBS Sheet Permissions

To grant access, go to **Access Control** and select the **WBS Sheet**.

The following permissions are available:

- **Modify** - Allows users to edit WBS Attributes (including CSV Import) & view WBS Sheet.
- **View** - Allow users to view the WBS Sheet.
- **Hide Audit Log** - Allow users to see audit if the permission is not enabled.

Attributes

The following explains the Earned Value Management Attributes. For details about the data elements, refer to the *Unifier Reference Guide*.

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Recost – Activity Attributes

By default, the **Master Rate Sheet** in the Company Workspace will be used to do the costing. You can assign a custom rate sheet at the activity sheet level, or a project sheet level, and then do the re-costing. Accordingly, the price/unit from the respective sheet is used to do the re-costing.

The following logic is used to do the re-costing:

- If no rate (Price/Unit) is defined in the Activity Sheet, and no rate is defined for the resource/role, then user will see a warning included in the history and a default value of 0.
- If a rate is defined for the individual resource on an activity, Unifier selects the project currency and multiply that number by the number of units to get the cost.

Only the following fields will be re-costed for baseline schedule:

Activity Attributes

- Planned Total Cost (uuu_P6PlannedTotalCost)
- Actual Total Cost (uuu_P6ActualTotalCost)
- At Completion Total Cost (uuu_P6AtCompletionTotalCost)
- Remaining Total Cost (uuu_P6RemainingTotalCost)

Assignment Attributes

- Planned Cost (uuu_P6PlannedCost)*
- Actual Cost (uuu_P6ActualCost)*
- Remaining Cost (uuu_P6RemainingCost)*

- At Completion Cost (uuu_P6AtCompletionCost)*

As part of baseline re-costing, the new planned total cost in current schedule has been updated and recalculated for all the fields that are impacted by change in baseline planned cost.

- **Spread Costing**: Applying the correct cost-applicable on that day.
- **CBS**: Unifier uses the Estimate to Completion (ETC) calculation from Project ETC Formula.
- **PV Cost**: Planned Value (PV) cost of activity in Current Schedule is Planned Cost of the same activity in baseline.

For cumulative calculation Unifier applies the formula on cumulative data, and similarly, does the same for incremental data.

If a project does not have a baseline schedule, then Unifier uses the corresponding baseline values from the current schedule.

Activity Attribute	Date Element	Calculation
Planned Total Cost	`uuu_P6PlannedTotalCost`	Planned Total Cost is calculated by consolidating the planned cost across all assignments under an activity.
Actual Total Cost	`uuu_P6ActualTotalCost`	The actual total cost incurred for the activity as of the project data date. Calculated by consolidating Actual Total Cost across all assignments under an activity.
At Completion Total Cost	`uuu_P6AtCompletionTotalCost`	At Completion Total Cost is calculated by consolidating the at completion costs across all assignments under an activity.
Remaining Total Cost	`uuu_P6RemainingTotalCost`	Remaining Total Cost is calculated by consolidating the remaining costs across all assignments under an activity.
Planned Value	`uuu_P6PVCost`	The portion of the baseline total cost of the activity or project that is scheduled to be completed as of the project data date. Calculated as Planned Total Cost multiplied by Planned Completion of the activity at the data date. Planned Total Cost and Planned completion of the activity are calculated from project baseline.
Earned Value	`uuu_P6EVCost`	The portion of the project baseline total cost of an activity actually completed as of the project data date. Calculated as Planned Total Cost multiplied by Performance Percent Complete. The method for computing performance percent complete depends on the Earned Value technique selected for the activity's WBS. Planned Total Cost of the activity is calculated from the

Activity Attribute	Date Element	Calculation
		project baseline.
Estimate to Complete	uuu_P6ETC	The estimated cost to complete the activity is calculated as Remaining Total Cost for the activity or the Performance Factor multiplied by (Planned Total Cost minus Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline). Planned Total cost is calculated from the project baseline. For CBS, project level earned value technique is used for data roll up.
Schedule Performance Index	uuu_P6SPIndex	A measure of the work accomplished as a percentage of the work scheduled. Schedule Performance Index indicates whether you are meeting earned and planned values within your schedule. A value less than 1 indicates that less work was performed than was scheduled. Schedule Performance Index = Earned Value/Planned Value. A value less than 1 indicates that the project is behind schedule. For not started activities, SPI is 1.
Cost Performance Index	uuu_P6CPIndex	A measure of the work accomplished as a percentage of the actual costs. Cost Performance Index (CPI) indicates whether you have spent money over the budget to date. Cost Performance Index = Earned Value/Actual Cost. A value less than 1 indicates that the actual cost has exceeded the planned value. For not started activities, CPI is 1.
Cost Schedule Index	uuu_CSIndex	A measure to check the overall status by combining cost & schedule. Cost Schedule Index = Schedule Performance Index * Cost Performance Index. For not started activities, CSI is 1.
Schedule Variance	uuu_P6ScheduleVariance	The measure of schedule performance on a project. A negative value indicates that less work was actually performed than was scheduled and vice versa. Schedule Variance = Earned Value – Planned Value. For not started activities, SV is 0.

Activity Attribute	Date Element	Calculation
Cost Variance	uuu_P6CostVariance	A measure of cost performance on an activity, WBS, or project. A negative value indicates that the actual cost has exceeded the planned value. Cost Variance = Earned Value - Actual Cost. For not started activities, CV is 0.
To Complete Performance Index	uuu_P6TCPIndex	A measure of the value of the project work that is remaining. *To Complete Performance Index* (TCPI) is essentially a ratio of the remaining work to the remaining funds. It helps determine the level of performance that must be achieved on the remaining work to meet recognized business goals, such as the Budget at Completion (BAC) or the Estimate at Completion (EAC). You can set performance thresholds for calculated TCPI values to display visual indicators that help you determine whether you need to take corrective action. To Complete Performance Index = (Remaining Work) / (Remaining Funds) where the Remaining Work = Budget at Completion - Earned Value. If *under* budget, then: Remaining Funds = Budget at Completion - Actual Cost If *over* budget, then: Remaining Funds = Estimate at Completion - Actual Cost
Estimate at Completion	uuu_P6EACCost	The expected total cost of a schedule activity when the defined scope of work will be completed. Calculated as Actual Cost (14) + Estimate to Complete Cost (24). The method for calculating estimate to complete depends on the earned value technique selected for the activity's WBS. The estimate at completion (EAC) will help you find a new, realistic, budget to complete the project. It tells you how much you may have to spend to complete the project. The EAC can be calculated in three cases depending on the situation.
Budget at Completion	uuu_P6BAC	The planned total cost through activity completion calculated by consolidating costs across all assignments.
Variance at Completi	uuu_P6VAC	The difference between the baseline total cost and the current estimate of total cost. A negative value indicates an estimated cost overrun. Budget

Activity Attribute	Date Element	Calculation
on		At Completion is calculated from the current baseline. Variance at Completion = Budget At Completion - Estimate At Completion.

Recost – Assignment Attributes

Assignment Attribute	Data Element	Calculation
Planned Cost	uuu_P6PlannedCost	Calculated at spread level. Unifier Planned Units X Price/Unit. If the rate source is Override, then the system uses the rate present in the activity sheet corresponding to that assignment.
Actual Cost	uuu_P6ActualCost	Calculated at spread level. Unifier Actual Units X Price/Unit. If the rate source is Override, then the system uses the rate present in the activity sheet corresponding to that assignment.
Remaining Cost	uuu_P6RemainingCost	Calculated at spread level. Unifier Remaining Units X Price/Unit. If the rate source is Override, then the system uses the rate present in the activity sheet corresponding to that assignment.
At Completion Cost	uuu_P6AtCompletionCost	Calculated at spread level. Unifier At Completion Cost is the sum of actual cost and remaining cost for that assignment.

WBS Attributes

Assignment Attribute	Data Element	Calculation
WBS Code	uuu_P6WBSCode	The unique identifier of the WBS for the associated activity.
WBS Name	uuu_P6WBSName	The name of the WBS Code for the associated

Assignment Attribute	Data Element	Calculation
		activity.
WBS Path	uuu_P6WBSPath	The location of the activity on the WBS hierarchy.
WBS Type	REVIEWER: Need info	REVIEWER: Need info
ETC Technique	uuu_P6ETC	The field is populated with the formula used for the ETC calculation. ETC is the estimated cost to complete the activity, WBS, or project. Calculated as Remaining Total Cost for the activity or the Performance Factor multiplied by (Budget At Completion minus Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline). Budget at Completion is calculated from the project baseline.

Activity Attributes (General)

Assignment Attribute	Data Element	Calculation
Activity ID	uuu_P6ActivityId	The unique identifier of the activity. In order to identify and track activities, P6 assigns each activity a unique Activity ID that is the result of joining the Activity ID Prefix with the Activity ID Suffix and then adding an Increment value. For example, a prefix of PROJ-A# combined with a suffix of 2500 and an Increment of 5 will yield the following activity IDs: PROJ-A#2500, PROJ-A#2505, etc.
Activity Name	uuu_P6ActivityName	The name of the activity.
Activity Status	uuu_P6ActivityStatus	The current condition of the activity. Valid values are Not Started; In Progress; and Completed.
Activity Type	uuu_P6ActivityType	Determines how duration and schedule dates are calculated for an activity. Options are: Task Dependent: Activities are scheduled using the activity calendar rather than the

Assignment Attribute	Data Element	Calculation
		calendars of assigned resources. Resource Dependent: Activities are scheduled using the calendars of assigned resources. Level of Effort: Activities have a duration that is determined by its dependent activities and are typically administration type. Start or Finish Milestone: Indicates if the activity marks the beginning or end of a major stage in the project. Milestones have zero duration and no resources. WBS Summary: Activities that are used to aggregate date, duration, and percent complete values for a group of activities that share a common WBS code level.
Activity % Complete	`uuu_P6PercentComplete`	An activity level setting in P6 used to update the amount of work completed on an activity. Use one of 3 options for identifying Activity Percent Complete: Duration % Complete: Used to report progress based on Remaining Duration: [(Original Duration – Remaining Duration)/Original Duration]*100. Units % Complete: Used to report progress based upon actual work performed and remaining units to complete: (Actual Units/At Completion Units) * 100. Physical % Complete: Used to progress based on personal judgment.
CBS Code	`bitemID`	The cost code in Unifier to which you can link an activity, assignment or expense.
Performance % Complete	`uuu_P6Performance%Complete`	The percentage of the activity or project planned work that is currently complete. Performance % Complete is used to calculate earned value. It can be based on the technique for computing earned-value percent complete for the activity's WBS – e.g., the activity percent complete, 0/100 rule, 50/50 rule, etc.

Activity Attributes (Scheduling)

Assignment Attribute	Data Element	Calculation
Planned Start	uuu_P6PlannedStart	The date the activity is scheduled to start.
Planned Finish	uuu_P6PlannedFinish	The date the activity is scheduled to finish if the activity has not started.
Planned Duration	uuu_P6PlannedDuration	The expected amount of time required to complete an activity. The planned working time is calculated in P6 using the activity's calendar. The duration is measured from the activity's planned start date to its planned finish date.
Start	uuu_P6Start	Start date is equal to the early start when an activity has no progress. When the activity is in progress or complete, start is equal to the actual start.
Finish	uuu_P6Finish	Finish date is equal to the early finish when an activity has no progress. When the activity is in progress, finish will remain equal to early finish. When the activity is complete, finish date is equal to the actual finish date.
Actual Start	uuu_P6ActualStart	If work has started, the date on which the activity, WBS, project, or EPS began. If resources (labor, non-labor, or material) or roles are assigned to the activity, the actual start date is the earliest among all the resource or role assignments. For a WBS, project, or EPS, the actual start date is the earliest actual start date among all activities within the WBS, project, or EPS. When P6 is integrated with Primavera Unifier, the Actual Start date might have been imported from Primavera Unifier rather than calculated by P6.
Actual Finish	uuu_P6ActualFinish	The date on which the item, such as an activity, assignment, or project, is complete. When P6 is integrated with Primavera Unifier, the Actual Finish date might have been imported from Primavera Unifier rather than calculated by P6.

Assignment Attribute	Data Element	Calculation
Actual Duration	uuu_P6ActualDuration	The total working time from the Actual Start date to the Actual Finish date for completed activities, or the total working time from the Actual Start date to the data date for in-progress activities. The actual working time is computed using the activity's calendar.
Remaining Early Start	uuu_P6RemainingEarlyStart	Remaining early start date is basically the earliest date the activity can start or continue after the data date. If the Activity has no progress then remaining early dates are set equal to the early dates. If progress follows as expected, then remaining early start is equal to the data date. Once the activity is complete, remaining early start is blanked out.
Remaining Early Finish	uuu_P6RemainingEarlyFinish	Remaining early finish is calculated by adding the remaining duration to remaining early start. Once the activity is complete, remaining early finish is blanked out.
Remaining Duration	uuu_P6RemainingDuration	The total working time from the activity remaining start date to the remaining finish date. The remaining working time is calculated using the activity's calendar. Before the activity is started, the remaining duration is the same as the planned duration. After the activity is completed the remaining duration is zero.
At Completion Duration	uuu_P6AtCompletionDuration	The total working time from the activity's current start date to the current finish date. The current start date is the planned start date until the activity is started, and then it is the actual start date. The current finish date is the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed. The total working time is calculated using the activity's calendar.
Primary Constraint	uuu_P6PrimaryConstraint	A user-imposed date restriction can be applied to an activity that impacts the scheduling of dependent activities. For example, use the Start On or After constraint

Assignment Attribute	Data Element	Calculation
		to specify the earliest date on which an activity can begin.
Secondary Constraint	uuu_P6SecondaryConstraint	A maximum of two constraints – a primary and a secondary can be applied to an activity. To specify a secondary constraint, a valid primary constraint must first be applied to the activity.

Activity Attributes (Units)

Assignment Attribute	Data Element	Calculation
Planned Total Units	uuu_P6PlannedTotalUnits	The planned units of work for the activity.
Actual Total Units	uuu_P6ActualTotalUnits	The exact number of units that have been expended on the selected activity.
Remaining Total Units	uuu_P6RemainingTotalUnits	The remaining units of work to be performed by the resource on the activity. Calculated as Planned Units minus Actual Units.
At Completion Total Units	uuu_P6AtCompletionTotalUnits	The sum of the actual units and remaining units for the resource assignment on the activity. Calculated as Actual Units plus Remaining Units.

Activity Attributes (Cost)

Assignment Attribute	Data Element	Calculation
Planned Total Cost	uuu_P6PlannedTotalCost	The expected total cost of the activity, consolidating costs of all assignments.
Actual Total Cost	uuu_P6ActualTotalCost	The actual non-overtime plus overtime cost for all the resource assignments of the activity.
Remaining Total Cost	uuu_P6RemainingTotalCost	The remaining cost of all the resource assignments for the activity.

Assignment Attribute	Data Element	Calculation
At Completion Total Cost	uuu_P6AtCompletionTotalCost	The sum of the actual costs plus remaining costs for the resource assignment on the activity. Calculated as Actual Costs plus Remaining Costs.

Activity Attributes – Earned Value

Assignment Attribute	Data Element	Calculation
Planned Value (PV)	uuu_P6PVCost	The portion of the baseline total cost of the activity or project that is scheduled to be completed as of the project data date.
Earned Value (EV)	uuu_P6EVCost	The portion of the project baseline total cost of an activity or all activities in the project that are actually completed as of the project data date. Budget at completion is calculated from the project baseline. Calculated as Budget At Completion multiplied by Performance Percent Complete.
Estimate to Complete (ETC)	uuu_P6ETC	The estimated cost to complete the activity, WBS, or project. Calculated as Remaining Total Cost for the activity or the Performance Factor multiplied by (Budget At Completion minus Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline). Budget at completion is calculated from the project baseline.
Schedule Performance Index (SPI)	uuu_P6SPIndex	A measure of the work accomplished as a percentage of the work scheduled. Schedule Performance Index indicates whether you are meeting earned and planned values within your schedule. A value less than 1 indicates that less work was performed than was scheduled. Calculated as Earned Value divided by Planned Value.
Cost Performance Index (CPI)	uuu_P6CPIndex	A measure of the value of work accomplished as a percentage of the actual costs. Cost Performance Index (CPI) indicates whether you have spent money over the budget to date. On the My Preferences page in P6, you

Assignment Attribute	Data Element	Calculation
		can set performance thresholds for CPI calculated values to determine whether you need to take corrective action. Calculated as Earned Value Cost divided by Actual Cost. A value less than 1 indicates that the actual cost has exceeded the planned value.
Cost Schedule Index (CSI)	uuu_P6CSIndex	Product of Schedule Performance Index and Cost Schedule Index.
Schedule Variance	uuu_P6ScheduleVariance	The measure of schedule performance on a project. A negative value indicates that less work was actually performed than was scheduled. Calculated as Earned Value minus Planned Value.
Cost Variance	uuu_P6CostVariance	A measure of cost performance on an activity, WBS, or project. A negative value indicates that the actual cost has exceeded the planned value. Calculated as Earned Value minus Actual Cost.
To Complete Performance Index	uuu_P6TCPIndex	The ratio of the remaining work to the remaining funds. Calculated as (Budget at Completion minus Earned Value) divided by (Estimate at Completion minus Actual Units or Cost).
Estimate at Completion	uuu_P6EACCost	The expected total cost of a schedule activity, a work breakdown structure component, or the project when the defined scope of work will be completed. Calculated as Actual Cost plus Estimate to Complete Cost. The method for calculating estimate to complete depends on the earned value technique selected for the activity's WBS.
Budget at Completion	uuu_P6BAC	The planned total cost through activity or project completion. Calculated as Planned Labor Cost plus Planned Non-labor Cost plus Planned Expense Cost plus Planned Material Cost.
Variance at Completion	uuu_P6VAC	The difference between the baseline total cost and the current estimate of total cost. A negative value indicates an estimated cost overrun. Budget At Completion is calculated from the current baseline. Calculated as Budget At Completion minus Estimate At

Assignment Attribute	Data Element	Calculation
		Completion.

Resource Attributes

Assignment Attribute	Data Element	Calculation
ID	uuu_P6ResourceID	Resource code from P6.
Name	uuu_P6ResourceName	Resource name from P6; It can be a team name or resource name depending on the rate assigned to that level.
Status	uuu_P6ResourceStatus	Status of the resource – Active/Inactive.
Currency	uuu_P6RateCurrency	Currency for the rate.

Role Attributes

Assignment Attribute	Data Element	Calculation
ID	uuu_P6RoleID	Role code from P6
Name	uuu_P6RoleName	Role name from P6; It can be a team name or role name depending on the rate assigned to that level.
Status	uuu_P6RoleStatus	Status of the role – Active/Inactive
Currency	uuu_P6RateCurrency	Currency for the rate

Rate Sheet – Rate Tab

Assignment Attribute	Data Element	Calculation
Effective Date	uuu_P6RateEffectiveFrom	Date from which the rate is applicable.

Assignment Attribute	Data Element	Calculation
Price/Unit	uuu_P6priceperunit	Rate or price per unit.

Templates

In This Section

OBS Templates 243
WBS Templates 243

OBS Templates

1) Go to the **Company Workspace** and switch to the **Admin** mode.
2) From the left-hand Navigator click **Templates** module to expand.
3) Click **OBS Sheets** to open the **OBS Sheets** log.
4) Click **Create** to open the **Create OBS Sheet** window.
5) Enter a name in the **Name** field.
6) Enter a description in the **Description** field.
7) Click **Create**. The **OBS Sheets** log window displays the newly created OBS sheet.
8) Click the *gear menu* ( ) on the newly created OBS sheet to open and click **Open**.
9) Proceed to create an OBS structure, under **Templates**. This can be used when creating the OBS in a shell (**Activity Manager** > **OBS Sheet**).

WBS Templates

No templates are needed for WBS sheet as the WBS sheet is created directly by way of P6 and Unifier Integration.

Configuration Package

In This Section

OBS Configuration Package 245
WBS Configuration Package 245

OBS Configuration Package

Open the **New Component List** > **Earned Value Manager** > **OBS Attributes**.

WBS Configuration Package

If you select the Schedule Manager in uDesigner, when creating a configuration package, then WBS Sheet design will also be available as an option.

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