

Oracle
Primavera Unifier
General Administration Guide

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Oracle Primavera Unifier General Administration Guide

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Getting Started with General Administration Guide

Within our documentation, some content might be specific for cloud deployments while other content is relevant for on-premises deployments. Any content that applies to only one of these deployments is labeled accordingly.

The *Unifier General Administration Guide* explains how the Company Administrator should use the general options that are available in the **Admin** mode of operation.

Depending on permissions, among other tasks, the Company Administrators can:

- ▶ Create or modify projects
- ▶ Create data definitions for custom attributes on BP forms
- ▶ Activate business process schemas
- ▶ Define record numbering schemas
- ▶ Create users and groups and grant their permissions
- ▶ Set up templates
- ▶ Add currencies

For more details about Company Administrator, see **Administrators** (on page 21).

Access to functionality is granted through permissions.

A Company Administrator can set permission from the following modules:



- ▶ **Access Control**
- ▶ **Company User**
- ▶ **User Administration > Groups**
- ▶ **Standards & Libraries > Permissions**

The ability to utilize a specific function depends on permissions settings granted by the Company Administrator, set in **Admin** mode.

There are two modes of operation:

- ▶ **Admin (Administration) mode:** The Company Administrator works in **Admin** mode to set up, for example, company and project/shell properties, user permissions, templates for major features, data structures, and configure and set up business process (BP) workflows.
- ▶ **User mode:** Users spend most of their time in the **User** mode. The User mode allows users perform the day-to-day activities, collaborate through business processes and Mailbox, maintain, for example, the Cost Manager, Activity Manager, and Document Manager, and run reports.

User Help explains how to use the options that are available in the **User** mode of operation.

You can switch between modes using the mode icons ( **User** mode and  **Admin** mode). These options are not available for the **Home** workspace.

Note: On touchscreen-enabled devices, the close button (x) is displayed

for every page or tab in the location bar at the top of the application,
instead of being displayed only for the active page or tab.

Security Considerations

For any company that deals with sensitive data, keeping it secure is crucial to success. While hosting Unifier data on the Oracle Cloud provides security measures, it cannot do everything. For example, it cannot prevent phishing attempts or other attacks that exploit gaps in its users' security awareness. That is why it is important for everyone who works with Oracle Primavera Unifier, whether hosted on-premises or on the Oracle Cloud, to understand what they can do to keep data secure.

Who this information is for

This guide and the *Unifier Integration Interface Guide* contain comprehensive information on administrative features, including those related to security.

This section is for anyone who uses, manages, or is just interested in the system. If you are a security expert or administrator, this is a good place to start. It should help you see the big security picture and understand the most important guidelines related to security in Unifier.

For further information on configuring your on-premises Unifier environment securely, refer to the *Unifier Security Guide for On-Premises*.

Some Security Basics

We use the term administrator to refer to anyone who is responsible for managing a company's data and who can access that data. For our purposes, administrators includes a wide variety of IT professionals, from those who define roles in the Primavera Unifier application to those who manage company servers.

An end user is anyone who uses Primavera Unifier to do their job. This includes project managers, subcontractors, general contractors, and everyone else who logs into Primavera Unifier from an office or jobsite to get their work done.

Administrators

- ▶ Set up Single Sign-On (SSO) and enable multi-factor authentication to minimize the number of passwords that users have to remember and to consolidate risk.
- ▶ Educate users on how they can avoid unwittingly helping hackers. One of the best ways application administrators and security advocates can help users is by helping them to prevent security breaches.
- ▶ Use a VPN to encrypt data being sent over the internet.
- ▶ Stay up to date about security trends and best practices.

End users

- ▶ Follow security guidelines created by their companies and the administrators of any network applications they use.
- ▶ Use strong passwords. The more random-looking the better, and avoid reusing passwords.

- ▶ Learn to recognize phishing. Phishing is when someone disguises an email or some other transmission as a legitimate message in an attempt to get a user to reveal sensitive information. For example, a hacker may send you an email disguised to look like an email from your employer requesting login information. These attacks are becoming more sophisticated, but you can still protect yourself by making sure any emails you receive or websites you visit are legitimate before using them to share sensitive information.

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Authentication: How Users Sign On

Authentication refers to the way users sign on.

If possible, administrators should implement Single Sign-on (SSO).

SSO reduces the number of passwords the users must remember. It can also be used to enable multi-factor login, which is when users are asked to provide some verification in addition to their passwords, like a code that they receive via text or email.

Note: For Unifier On-Premises customers, the system only supports integration with the Oracle Identity Manager.

To learn how to change the authentication settings, refer to **Authentication Options for Primavera Unifier** in the *Unifier Security Guide for On-Premises*.

Authorization: What Users Can Access

Authorization refers to what users can access. The authorization to use the system is based on permissions. The administrator manages permissions. The administrators must carefully grant permissions to all appropriate users.

Administrators: There are different types or levels of administrators, and they have various responsibilities, including (but not limited to) the end-to-end administration of Unifier.

Permissions: Unifier offers a flexible yet powerful permission-based security system, as opposed to role-based security. Role-based security by definition limits the user to a fixed set of functions or tasks. With permission-based security, access to all modules, functions, and tasks are controlled by granting each user any combination of permissions. These permissions consist of the ability to access specific tasks, and to perform specific actions within those tasks, such as create, modify, and view.

Permissions are granted to **Users**, or to **Groups**, to allow them access to features or functionalities.

Users: Individuals who use a functionality, if they have the permission granted to them to do so, by the administrator.

Groups: The **Groups** option makes it easier for the administrators to assign permission sets to multiple users (a group of users) at the same time. The administrators can use **Groups** to group users who will be using the same functionality, and assign the same permissions to all users in the group. Anytime a new person comes onto the project/shell, the administrator can assign the new person to a group, and the new person's permissions will be set automatically.

Specific permission settings are described in the *Unifier Data Reference Guide*.

Endpoint Security

From laptops to cellphones, organizations have to keep track of data on more devices than ever, and more devices means more risk. It is important to implement Enterprise Mobility Management (EMM) tools and policies.

Inherent Risks and Practical Policies

No automated security system or protocol can make a system fully secure if those with legitimate access exploit it for illegitimate purposes or if a device falls into the wrong hands. Here are some general "common sense" guidelines you should follow when it comes to endpoint security:

Use good mobile device management (MDM) software.

MDM systems can help your organization secure the devices where its sensitive data might end up.

Grant security permission conservatively.

Do not give everyone permission to everything just to avoid perceived complexity. Remember, one breach can be many times more costly and time consuming than setting and following standard security protocols.

Organize permission sets and credentials so they can be edited quickly.

Keep user groups and their permissions organized and easy to manage. Use descriptive names for permission sets, and organize them logically to make it easier for you or anyone else to manage them quickly and confidently.

Keep up with organizational changes.

If a user no longer needs access to a part of the app, for whatever reason, update that user's permissions accordingly.

Use timeout settings.

Administrators can limit how long mobile applications and APIs remain connected to the server after a user signs in. For more information, see *Unifier Mobile Application* (on page 279).

Confidentiality

Confidentiality ensures that only the authorized users see the stored and transmitted information. In addition to the documentation included with other applications and hardware components, follow the Unifier-specific guidance below.

- ▶ For data in transit, use SSL/TLS to protect network connections among modules. If you use SSO authentication, ensure that you use LDAP to connect to the directory server.
- ▶ For data at rest, refer to the documentation included with the database server for instructions on securing the database.

Integration with Other Applications

The ability to connect and exchange information with other apps is powerful, but it also presents some potential security issues that administrators must manage. It is important to understand which data flows between applications to ensure compliance with policies and regulations related to security and privacy.

For more information on integration, refer to the *Unifier Integration Interface Guide*.

Security for Developers - API Security

With APIs, developers can use some of the data and functionality of Unifier outside of the limitations—and relative safety—of the Unifier environment. This opens many possibilities. But as with any situation where data can move in potentially unpredictable ways, it presents risk. For more information on integration, refer to the *Unifier Integration Interface Guide*.

Establishing Security Contacts

While the apps used by your organization may have some security features of their own, most security issues ultimately come down to the people who use them. When your company establishes its security procedures, it is important to also establish in-house security experts to whom other members can turn when they have security questions. Security points of contact should be continuously learning about security trends and how they can educate users to keep their data and network secure. Security contacts should also routinely update and maintain protocols that suit the security needs of their organizations.

Signing In the First Time and Confirming the Base Currency

The Base Currency is the default currency used by the company. Although it might be set by Oracle when the system is first provisioned, the Base Currency must be selected the first time that the Company Administrator signs in. No other users are allowed to sign in until the Company Administrator sets the Base Currency. Because the type of currency plays a large role in nearly all financial functions, the Base Currency cannot be changed after data has been entered into the system.

To sign in the first time:

- 1) Sign in to the system as the Company Administrator.
- 2) When the **Cookies in Unifier** notification appears, click **Got It** to continue.
- 3) In the **Select Base Currency** dialog box, select a currency from the list, and click **Save**.

Note: If you click Cancel or X (close), no changes are saved and the login page is displayed.

- 4) In the **Confirmation** message, click **Yes** to accept your selected Base Currency or click **No** to select a different Base Currency.

After you set the Base Currency, the system updates the Event Audit Log with all relevant information, such as the date on which the Base Currency was confirmed and the name of the Company Administrator who confirmed it.

Companies

The following describes the company types used within the system:

- ▶ **Owner Company (also referred to as the Sponsor Company):** The entity that engages in business and has complete control (or ownership) of the application. An Owner Company (Sponsor Company), commissions projects/shells. Projects/shells are created under the Owner Company.

Note: Projects/shells are a collaboration space allowing users to coordinate efforts during the execution of a project.

A Sponsor Company may have one, many, or no partners.

- ▶ **Partner Company:** A Partner Company is a consultant, a contractor, or a vendor company that is associated with a Sponsor Company. A Partner Company may work with the Sponsor Company on all, or only some, of the Sponsor Company projects/shells.
- ▶ **Member Company:** When a Partner Company participates in a project/shell, the Partner Company becomes a Member Company, and the Partner Company users that are added to the project/shell become the Member Company users. Additionally, if a Partner Company user is added to a project/shell, the system verifies that the user's company is a Member Company; if not, the system adds the Partner Company.

Notes:

- Project/shell access is limited to the users (including Sponsor Company users or Member Company users) who are chosen for the project/shell and permissions are configurable for each company.
 - When a Member (also known as Partner) Company is removed from a project/shell, the Member Company users are automatically set to Inactive.
-

The application lets you add a Partner Company or Member Company to enable project users to collaborate on (and coordinate) the execution of a project.

Administrators

Note: The following information is based on the default settings and typical use of the system.

There are different types, or levels, of administrators and they include:

- ▶ Site Administrator (also referred to as the System Administrator)
- ▶ Company Administrator
- ▶ Project/Shell Administrator

The following explains each administrator type in detail.

Site Administrator (also referred to as the System Administrator)

A Site Administrator is responsible for the end-to-end administration.

Note: For cloud customers, the Oracle Primavera Technical Team performs the Site Administrator function. For on-premises customers, the customer performs the Site Administrator function.

The Site Administrator's tasks include:

- ▶ Loading modules.
- ▶ Loading certain system reports.
- ▶ Managing the License Manager.
- ▶ Performing basic system administration tasks, including unlocking locked user accounts.
- ▶ Performing Company Administrator and Project/Shell Administrator functions, if requested.
- ▶ Changing the Authentication Key.

Company Administrator

Generally, a Company Administrator administers the Owner Company (Sponsor Company) functions. For more information about an Owner Company, see **User Administration** (on page 95).

The Company Administrator can also perform user tasks.

Note: Except where noted, the Company Administrator cannot perform tasks designated for the Site Administrator.

A Company Administrator typically performs the following tasks, depending on the permission:

- ▶ Creating multiple Partner Companies in the Owner Company.
- ▶ Creating users for each Partner Companies in the Owner Company.
- ▶ Modifying the company properties, including Company Workspace.
- ▶ Managing company details such as contact information.
- ▶ Managing company-level users, groups, and granting permissions.

- ▶ Managing Partner Company (or Member Company) status.
- ▶ Managing Partner Company (or Member Company) users.
- ▶ Creating cross-project or cross-Shell reports.
- ▶ Creating, and maintaining, Data Definitions (DDs) and Data Elements (DEs).
- ▶ Activating a Business Process schema.
- ▶ Defining record numbering scheme.
- ▶ Defining the company exchange rate and currencies.
- ▶ Creating projects/shells.
- ▶ Managing project organization (categories) and shell organization (types).
- ▶ Setting up templates.
- ▶ Setting up and managing data structure.
- ▶ Configuring the User mode Navigator (the setup of the Navigator displayed on the left in User mode: **Company Workspace > Admin mode > Configuration > User Mode Navigator**).

In the system, you can have multiple company administrators.

The Company Administrator group, which can contain multiple company administrators, is automatically created when the Owner Company (Sponsor Company) is created.

This Company Administrator group has preset permissions. These permissions can be changed as needed.

Examples

- ▶ If new business processes are added.
- ▶ If new modules are added.
- ▶ If the Company Administrator assists in administration of other modules such as projects/shells.

Project Administrator or Shell Administrator (Project/Shell Administrator)

Project/Shell Administrators manage project/shell-level administration tasks. A project/shell administrator will add existing users to projects and/or project/shell groups, restrict access within specific projects, set up the project/shell cost/funding/Schedule of Value (SOV)/schedule sheets, and set up business processes. Project/Shell Administrators typically:

- ▶ Administer projects/shells they are a member of
- ▶ Add Project/Shell Users, create Groups and grant Permissions
- ▶ Create and modify the Cost Sheet
- ▶ Create Business Process Setups and define workflows

To access company administration functions, see ***Company Workspace Landing Page (Admin)***.

Permission-Based Security

The application offers a flexible yet powerful permission-based security system, as opposed to role-based security. Role-based security by definition limits the user to a fixed set of functions or tasks. With permission-based security, access to all modules, functions and tasks are controlled by granting each user any combination of permissions.

For ease of use, permissions can be set for both individuals and for groups of users. You can even copy permissions from one user to another, and then make modifications.

A user may belong to any (or all) of the administration groups and perform functions as a company or project/shell administrator. Company Administrators generally have project/shell permissions, and may or may not work within the specific projects/shells. You may want a project/shell administrator to have the ability to perform some company administrator functions, such as creating a project. Creating different types of user permission templates will help you to grant access more easily to different staff members, whether they are administrative staff, engineers or architects, managers, vendors or subcontractors, IT personnel, and so on.

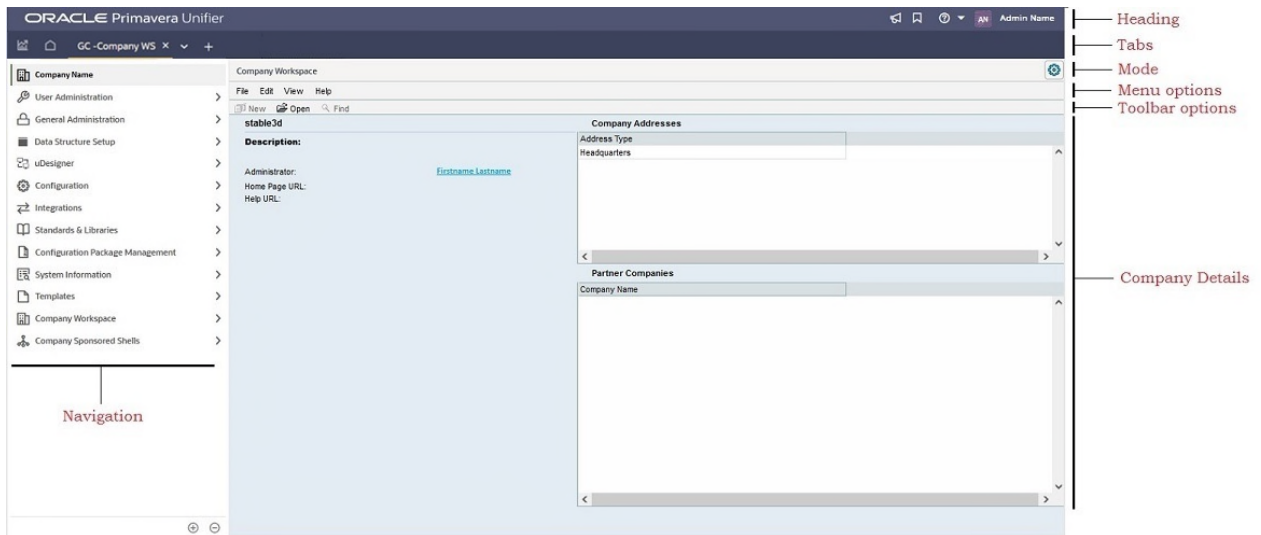
Use default permissions as a guideline, but your users' actual permission settings will depend on your organization's needs.

Depending on what you are setting up or configuring, such as users, groups, projects/shells, business processes, and so on, there are different permissions that might be available for selection. Some (this is *not* a comprehensive list) of these permissions include:

- ▶ Create
- ▶ Full Access
- ▶ Modify Status
- ▶ Modify Properties
- ▶ View
- ▶ Allow Bulk Edit
- ▶ Configure User Dashboard
- ▶ Allow Quick Calendar Entry
- ▶ Hide Audit Log
- ▶ Organize
- ▶ View All Sheets

Company Workspace Landing Page (Admin)

When you go to your Company Workspace tab, you will see the company landing page, as shown below:



As shown, the company landing page has a heading which displays the Primavera Unifier logo and enables you to access the following:

- ▶ **Announcements** icon (📢): Displays a log of recent announcements.
- ▶ **Bookmarks** icon (📌): Displays all bookmarked locations.
- ▶ **View Help menu** icon (🔗): Displays a list of tabs that lead to additional support resources.
- ▶ **User control panel** icon (Image and the user's name): Contains your user preferences and login details.

Below the heading, the tab row enables you go to the **Analytics** tab (📊) (depending on your permissions), **Home** tab (Home workspace) (🏠), **Company Workspace** tab, and shell tabs. You can close all the tabs except the **Home** tab (Home workspace). You can click the **New tab** icon (⊕) to open a window that enables you to search for company or shells by:

- Opening all locations and searching, for example, in all projects, all properties, or buildings.
- Opening the company or shells that are displayed (categorized under: Recent Locations, Key Locations, and Bookmarks).

Below the tabs row is the mode row, which enables you switch the mode of operation, from the **User** mode to the **Admin** mode or reverse (⚙️ **User** mode and ⚙️ **Admin** mode).

Below the mode row is the menu options row, which provides access to the following menu options:

- ▶ **File**

- ▶ **New:** Creates a new Company Workspace. A company can only have one Company Workspace. This node is read-only.
- ▶ **Open:** Opens the **Edit Company** window, which provides access to company properties through the following tabs:
 - **General:** Enables you to manage multiple company features, such as company name and description.
 - **Address:** Enables you to enter multiple company addresses, including one for the company headquarters.
 - **Security:** Enables you to configure policies for multiple items, including file security and account logins.
 - **Contact:** Enables you to provide contact information that can be used when users need support and training.
 - **E-Signatures:** Enables you to configure account settings for DocuSign and Adobe Acrobat Sign and select a default system for e-signatures.
 - **Outgoing E-mails:** Enables you to manage the size of attachments that can be included on an outgoing email.

See **Access Company Details (Edit Company Window)** (on page 63) for details about the tabs.

▶ **Edit**

- ▶ **Delete:** Removes a Company Workspace. This node is read-only.

▶ **View**

- ▶ **All:** Displays a list of all Company Workspaces. This node is read-only.
- ▶ **Find:** Enables you to search for a specific Company Workspace. This node is read-only.
- ▶ **Audit Log:** Opens the **Audit Log**, which displays a history of all actions that have been taken on the Company Workspace, including changes to the hyperlink security policy. The information provided includes such identifiers as the date, type of event, values (old and new), and who made the change.

▶ **Help**

- ▶ **User Help:** Accesses the User Help web page.
- ▶ **Admin Help:** Accesses the Administrator Help web page.
- ▶ **uDesigner Help:** Accesses the uDesigner Help web page.
- ▶ **Unifier Library:** Accesses the Administrator Help web page.
- ▶ **User Productivity Kit:** Accesses the portfolio type training.

Below the menu options row, the toolbar options row enables you to open the **Edit Company** window. For more information, see the **File > Open > <option>** descriptions provided earlier. The **New** and **Find** options on this row are not available.

Below the toolbar options row is the area that displays more details about the company such as the:

- ▶ **Description** of the company
- ▶ **Administrator** information
- ▶ **Home Page URL** of the company
- ▶ **Help URL** for the company

- ▶ **Company Addresses**
- ▶ **Partner Companies**

On the left side of the company landing page, the navigation (left Navigator) grouping nodes and functional nodes are displayed. The following topics explain each grouping and functional node in the Company Workspace landing page (**Admin** mode).

Note: You can click a grouping node to expand it and access the functional nodes that are associated with that grouping node. In some instances, some of the items under the grouping nodes are considered sub-grouping nodes which have their respective functional nodes, also known as leaf nodes.

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User Administration

The **User Administration** grouping node contains the following functional nodes:

- ▶ **Partner Companies:** An Owner Company (also referred to as a Sponsor Company) might work with one or more Partner Companies (for example, subcontractors, vendors, and so on) to work on projects/shells or company-level activities. Use this functional node to grant Partner Company users access to specific company-level and project/shell-level features.
- ▶ **Company Users:** Company users are the main users that will have access to the system and your company's functions. Use this functional node to grant Company users access to specific company-level and project/shell-level features.
- ▶ **Partner Users:** Partner users are members of Partner Companies that can be given permission to access the system and specific company functions. Use this functional node to grant Partner users access to specific company-level and project/shell-level features.
- ▶ **Groups:** Use this functional node to create and manage groups, such as Project Administrators. You can also specify the applicable Permissions for the group and manage the group membership.
- ▶ **Task Reassignment:** Lets you reassign **Active User Tasks** and **Inactive User Tasks** to another active user.

- ▶ **Integration Users:** Integration users can perform integration, using external programs to import data into the system. Use this functional node to grant Integration users access to run requests related to Representational State Transfer (REST)ful services, such as Workflow Business Process Permissions.
- ▶ **Access Control:** Use this option to see the users and groups who have access to each module (access range is from the Admin mode to the User mode, including the individual modules or managers), to see the permission settings, and to change the permissions.

General Administration

The **General Administration** grouping node contains the following functional nodes:

- ▶ **Announcements:** Lets you create announcements and indicate who should see the announcement—users, bidders, or both.
- ▶ **License Manager:** Displays the number of licenses allocated to each user type, such as Standard, as well as the current number of active users. Also provides access to the License Terms option in which you can enable alerts regarding the level of consumption.
- ▶ **Consent Notice**
 - ▶ **User Consent:** Lets you create and enable consent notices that require each user to accept or reject acknowledgment of the notice on the first login occurrence.
 - **Consent Status:** Lets you track the status of each recipient's response.
 - ▶ **Bidder Consent:** Lets you create and enable consent notices that require each bidder to accept or reject acknowledgment of the notice on the first login occurrence.
 - **Consent Status:** Lets you track the status of each recipient's response.
- ▶ **Customer Support Logins:** Lets you view the name and contact information for those identified as customer support. You can also see when each customer support person last logged in and out.

Data Structure Setup

The **Data Structure Setup** grouping node contains the following functional nodes:

- ▶ **System Modules:** Lists the various modules (grouping nodes and functional nodes) that provide system functionality.
- ▶ **Data Cube Definitions:** Lets you view and create queries for extracting data and displaying it on dashboards.
- ▶ **Data Definitions:** Lets you view and update the values and labels assigned to the **Basic**, **Cost Codes**, and **Data Picker** categories of data. Additional information might include the data type, data size, data source, how it is entered, and so on.
- ▶ **Data Elements:** Lists the Data Elements defined for your environment. A Data Element is a field, and it is defined by using a Data Definition. A Data Element consists of a name and label, and it might be a text box, a menu, a check box, and so on.

- ▶ **Data Indexes:** Lets you create user-defined indexes that speed up the performance of large data sets.
- ▶ **Data Views:** Lets you create and deploy SQL data views that can be used as a data source for custom reports, user-defined reports (UDRs), and Data Cube Definitions.
- ▶ **Dynamic Data Sets:** Lets you view and update a list of data sets that control what other data elements display or how they behave. For example, you can use a data set to control how check boxes behave when a user has multiple-choice options.
- ▶ **Reports:** Lets you view a list of the **Custom** and **System** types of reports that were loaded by your Site Administrator.
- ▶ **Statuses:** Lets you view a list of the following types of status that were loaded by your Site Administrator. The status indicates the state of a line item or record, such as approved or pending, at any point in the business process.
 - ▶ **Asset Statuses**
 - ▶ **Line Item Statuses**
 - ▶ **Record Statuses**
 - ▶ **Tags**
- ▶ **ER Views:** (Entity Reference [ER]) Provides a list of modules and a corresponding tabular view of the Data Elements and Data Definitions for each.

uDesigner

The **uDesigner** grouping node contains the following functional nodes:

- ▶ **Business Processes:** Displays a list of the Business Process templates.
- ▶ **Activity Manager:** Displays a list of activity, OBS, and WBS sheets (the activity manager components).
- ▶ **Configurable Modules:** Displays a list of configurable managers, including their description, type, and other related information.

A configurable manager is a manager that has been especially created for your company. Up to 25 managers can be created to consolidate and monitor any entities you want. Configurable managers differ from the managers that are shipped with the system in that configurable managers can roll up not only currency amounts, but also quantity amounts. You can design two kinds of managers: Code and Records-based and Code-based.

 - ▶ A **Code and Records-based** manager employs both codes to create a tracking sheet and records of individual items.
 - ▶ A **Code-based** manager employs only a sheet to keep track of the values it is monitoring.

From a **Code and Records-based** manager, you can drill down from the sheet to individual items; from a **Code-based** manager, you cannot.
- ▶ **Cost Manager:** Displays a list of the cost-related attributes.
- ▶ **Document Manager:** Displays a list of the folder- and document-related attributes.

- ▶ **Planning Manager:** The Planning Manager is where users can plan for new projects and proposals and create forecasts for those projects that are already running in the system. They cannot administer planned projects the way they administer real projects in the system; however, they can manage the planning phases for these projects as business processes using the same functions used by other business processes.

- ▶ **Resource Manager:** Displays a list of resources, their owners, status, level, type, and other related information.

The **Resource Manager** is where users can set up and manage a company's personnel resources. These resources are always maintained at the company level, to be distributed among the company's projects.

The **Resource Manager** classifies job functions into roles that can then be allocated to projects. These roles are used to define billable rates, which are used in budgeting, and can also be used in planning for resource demands across projects. Roles are associated with personnel resources—the people who can perform these roles in a project. The Resource Manager is where users assign personnel to roles and projects.

The **Resource Manager** manages time sheets, and also hard and soft resource bookings using a calendar that shows what projects a resource has been booked for, as well as the resource's availability.

- ▶ **Schedule Manager:** Displays a list of schedules, their owners, status, level, type, and other related information.

The **Schedule Manager** is where users can create and manage schedules at the project/shell level. They can create a schedule sheet that is customized to a project's or shell's needs. After these sheets are created, users can then use them to create project/shell activities and tasks, assign resources to tasks, create relationships between activities, track schedule progress and variables, and calculate the schedule's critical path.

- ▶ **Space Manager:** Displays a list of space-related items, their owners, status, level, type, and other related information.

A space is an entity—such as a cubicle, office, or conference room—that resides on a level in the Space Manager.

- ▶ **Shell Manager:** The Shell Manager is where uDesigner users create the shell types that will be used in the system. Administrators group shells into hierarchies, create shell “instances,” and specify what functions and features will be included in the shell, such as a cost manager (standard or generic), Document Manager, Schedule Manager, and so on.

- ▶ **User Administration:** Displays a list of the user attributes, including logs and pickers, their owners, status, level, type, and other related information.

Configuration

The **Configuration** grouping node contains the following functional nodes:

- ▶ **Business Process:** Displays a log of the Business Processes that have been imported and lets you update their configuration settings.

- ▶ **Document Manager:** Lets you configure views for the Folder and Document Attributes log.
- ▶ **Planning Manager:** The **Planning Manager** is where users can plan for new projects and proposals and create forecasts for those projects that are already running in the system. They cannot administer planned projects the way they administer real projects in the system; however, they can manage the planning phases for these projects as business processes using the same functions used by other business processes.
- ▶ **Portfolio Manager:** Lets you configure the scenarios that should be analyzed by each portfolio component.
- ▶ **Resource Manager:** The **Resource Manager** is where users can set up and manage a company's personnel resources. These resources are always maintained at the company level, to be distributed among the company's projects.

The Resource Manager classifies job functions into roles that can then be allocated to projects. These roles are used to define billable rates, which are used in budgeting, and can also be used in planning for resource demands across projects. Roles are associated with personnel resources—the people who can perform these roles in a project. The Resource Manager is where users assign personnel to roles and projects.

The Resource Manager manages time sheets, and also hard and soft resource bookings using a calendar that shows what projects a resource has been booked for, as well as the resource's availability.

- ▶ **Shell Manager:** Lets you update configuration settings for shell types, such as project number, cost codes, and status.
- ▶ **Space Manager:** Displays a list of configured space items, their level, status, and ID.
- ▶ **Custom Templates:** Lets you create and update Oracle Analytics Publisher-based Custom Reports and Custom Prints.
- ▶ **Navigation Tabs:** Lets you view the order in which the tabs for the Company Workspace and each shell are displayed in the tabs row. Also lets you rename the Company Workspace tab and the Organization and Test shells.
- ▶ **User Mode Navigator:** Lets you update the appearance and organization of the modules and business processes that are available in the left Navigator for all company users.
- ▶ **Landing Page:** Displays the available landing pages, their type, status, and other related information.
- ▶ **Internationalization:** Lets you view a list of translated content for customized strings and rename data element labels and other system strings by updating the English column. In addition to the translated items provided with the system, you can provide users and groups with translation privileges with the option of viewing translations or configuring them.
- ▶ **Material Inventory Manager:** Displays an inventory list of the materials at the project or shell level.

The Material Inventory Manager is a Project/Shell level Code and Record-based type manager.

If you are using a Code and Records-based configurable manager, there are sheets and classes (for example, Sheets and Material Inventory Manager).

- ▶ To access a sheet, click the Sheets node, and select a sheet from the log.
- ▶ To access a class, select a class. The log for the class opens.

If you are using a code-based configurable manager, there is just one sheet, which is listed under the log (for example Parts Manager).

Integrations

The **Integrations** grouping node contains the following functional nodes:

- ▶ **Analytics:** Use this node to define data mapping between Unifier data sources and Primavera Analytics subject areas. For more information, see ***Unifier and Primavera Analytics*** (on page 283).
- ▶ **Bluebeam:** If Bluebeam is enabled for your environment, use this node to configure the information that is tracked throughout review sessions. For more information, see the *Unifier Bluebeam User Guide*.
- ▶ **Event Notifications:** Use this node to view events triggered by steps reached within Business Processes. For more information, see ***Event Notifications***.
- ▶ **Gateway:** Use this node to view information about specific objects within Unifier and whether communication with other objects has been enabled. For more information, see ***Unifier and Primavera Gateway*** (on page 324).
 - ▶ **Business Objects:** Use this node to view a list of the objects that are available in your environment. For more information, see ***Business Objects Node in Unifier*** (on page 332).
- ▶ **Primavera Cloud:** Use this node to integrate Cash Flow between Unifier and Oracle Primavera Cloud. For more information, see ***Unifier and Oracle Primavera Cloud***.
- ▶ **Oracle Integration Cloud:** If you are using Oracle Primavera Cloud and Oracle Integration, use this node to integrate Schedule data between Oracle Primavera Cloud and Unifier. You can also update workflow business processes (BPs), the System Activity Sheet, and the Master Rate Sheet. For more information, see ***Unifier and Oracle Integration***.

Standards & Libraries

The **Standards & Libraries** grouping node contains the following functional nodes:

- ▶ **Calendars:** Lets you create multiple calendars, which supports using a library of calendars that can be selected for use at the company, shell, and project levels and accounts for holidays and other non-working days in a range of locales.
- ▶ **Cash Flow:** The Cash Flow feature is a way to view a time-based record of income and expenditures, which can be presented in tabular or graphical format. It enables users to create a baseline for project expenditures, track actual costs, and calculate future expenditures based on a known forecast or calculate from trends compared to “Baseline” curves. The Cash Flow node consists of the following functional nodes:

- ▶ **Data Sources:** Lets you define budget sources and curve types, and customize the display and order for graphical elements.
- ▶ **Distribution Profiles:** Lets you create and manage profiles that can be used for the display of cash-flow graphics.
- ▶ **Templates:** Lets you create and manage templates used in the display of cash-flow graphics.
- ▶ **Currencies:** Use this node to create and manage different currencies to suit business requirements.
- ▶ **Exchange Rates:** Use this node to create and manage the exchange rates for different currencies.
- ▶ **Permission Templates:** Lets you create templates for permission sets that you can subsequently apply to individual users or to group.
- ▶ **User Preference Templates:** Lets you create templates for a default set of user-based preferences that you can subsequently apply to existing users and to new users.
- ▶ **Approved Email List:** In addition to the dedicated company email address that was originally specified for your company, use this node to create and manage project/shell-specific identifiers that are used in conjunction with the company email. You can also specify additional email addresses that are approved for use within your organization.
- ▶ **Period Structure:** Use this node to define and manage time periods that support cost calculation for budgets used in cash flow and portfolio management. The default setting is monthly, but you can define alternate periods such as different fiscal years, quarterly periods, twice yearly periods, and so on.
- ▶ **Seasonal Dates:** Supports work-order management for preventive maintenance.
- ▶ **P6 Data Sources:** Displays a list of P6 data sources. The **P6 Data Sources** enables you to access the following information, based on your permissions:
 - ▶ **Data source:** Captured from P6 Summary Sheets, for use in Cost Sheets or Cost Sheets Templates.
Examples of P6 Data Sources: Current Schedule Summary, Original Baseline Summary, Sanctioned Baseline Summary
 - ▶ **Dataset for the attribute "Type" for P6 Summary Sheets**

Note: Unifier allows a maximum of 12 P6 Data Sources to be integrated, with "Current Schedule" as one of the 12 P6 Data Sources must be named.

You can manage the configuration package creation and import through the **Configuration Package Management** grouping node in the left Navigator. The grouping node contains the following functional nodes:

- ▶ **Component Lists:** Displays a list of all components in a configuration package.
- ▶ **Add-on Component Lists:** Displays a list of add-on components and enables you to create an add-on component list in order to create a configuration package that can be imported in to a different development environment.

Note: The **Add-on Component Lists** functional node, when included with the **Component Lists** functional node, is only available in the development servers.

The **Add-on Component Lists** functional node is available for the users who have "Enable" permission for the **Configuration Package Management** grouping node.

The **Add-on Component Lists** and the **Add-on Configuration Packages** (below) follow the same naming convention as regular Component Lists and Configuration Packages, for package names. Similar to the component lists, the add-on component lists can be saved with or without performing error check.

- ▶ **Configuration Packages:** Displays a list of component packages and enables you to create and import newly created or existing component packages.
- ▶ **Add-on Configuration Packages:** Lists all the added configuration packages existing in the Development environment and is available for the users who have "Enable" permission for the Configuration Package Management grouping node.

For more information, see **Configuration Package Management** in the *Unifier Modules Administration Guide*.

System Information

The **System Information** grouping node contains the following functional nodes:

- ▶ **Auto Creation Audit Log:** Use this node to view the auto creation events across the company. You need to have the View permission for "Auto Creation Audit Log" functional node.
- ▶ **Autopublish Log:** Use this node to view the status—successful or failed—of all auto-publish events.
- ▶ **Background Jobs:** Use this node to view the status of tasks, such as reports, that are running or waiting to run.
- ▶ **Background Jobs History:** Use this node to view the status of tasks, such as reports, that have run previously.

- ▶ **Background Jobs Statistics:** Use this node to access a visual representation of the data regarding background jobs. This node lets you identify the jobs that might be experiencing issues during execution.
- ▶ **BP Visualizer:** Use this node to view a list of BPs deployed in your environment and detailed information about each one.
- ▶ **Cash Flow Jobs:** Use this node to view a list of all active cash flow jobs. If you have the Modify permission, you can disable scheduled jobs or auto-snapshots for cash flow curves across all projects.
- ▶ **Design References:** Use this node to view a list of BPs deployed in your environment and the various references between the components used in the design of each BP.
- ▶ **Design Reports:** Use this node to view a list of BPs deployed in your environment and view, print, or export details about the components used in the design of each BP.
- ▶ **Design Usage:** Use this node to view a list of BPs deployed in your environment and identify where they are used.
- ▶ **Event Audit Log:** This node tracks all action events across the company that are initiated by a click. All clicks on hyperlinks are tracked from all users, regardless of their roles.

- ▶ **OIC Integration Log:** Use this node to view a list of every Oracle Integration event. The list includes the **Initiated** date and time, **Origin** (project number), **Origin Name** (project name), **Source** (a Business Process, Master Rate Sheet, or an Activity Sheet), **Source Reference**, **Source Number**, **Integration**, **Step Name**, **Action**, and so on.
- ▶ **RAP Audit Log:** This node tracks all Reverse Auto-Population (RAP) processes and lists read-only diagnostic information that includes the trigger, source, and destination names; status; and how long execution took. Events are grouped by Trigger Name; however, you can sort the list using any of the columns. Audit records are retained for one month or until the table reaches 50 thousand entries. To view additional information, select the applicable record to display a **Details** tab in the right pane.
- ▶ **REST Service Audit Log:** This node tracks all REST Service Requests, including all web service calls. To view additional information, such as response times and performance, click the **Trend Analysis** icon in the toolbar.
- ▶ **System Reports:** Use this node to run any of a set of predefined reports and output the information to different formats.

Templates

The **Templates** grouping node contains the following functional nodes:

- ▶ **Shells:** Lets you create and maintain templates of the following shell types. Shell templates are used to create new or update existing shells.
 - ▶ **Buildings**
 - ▶ **Linear Assets**
 - ▶ **Projects**
- ▶ **Commitment Summaries:** Displays a list of summaries for all the *Commit Cost* Business Processes.

- ▶ **Configurable Modules:** The Configurable Modules consists of the following sub-nodes:
 - ▶ **FCA Manager:** The Facility Condition Assessment (FCA) manager is a Project/Shell level **Code-based** type manager with the following components:
 - **Detail Form**
 - **Picker**
 - **Generic Cost Manager**
 - **Material Inventory Manager**
 - **Parts Manager**

- ▶ **Cost Sheets:** Lets you create and manage Cost Templates that can help you track and manage cost in projects/shells, and across the company.
- ▶ **Folder Structures:** Lets you create and manage templates for the folder and subfolder structure used in a shell document manager.
- ▶ **Funding:** The Funding node consists of the following functional nodes:
 - ▶ **Funding Sheets:** Lets you create and manage one template for a company funding sheet and multiple templates for project/shell funding sheets.
 - ▶ **Commitment Funding Sheets**
 - ▶ **Region/District**
 - ▶ **Site/Campus**
- ▶ **General Spends SOV:** Lets you define the required columns and formulas that are used to validate summary commitments.
- ▶ **Reports:** Lets you create and manage user-defined reports (UDRs) that can be added to a shell or shell template.
- ▶ **Rules:** Lets you create and manage the requirements that are used to validate the steps taken for business process records.
- ▶ **Schedule Sheets:** Lets you create and manage schedules of activities within the company.

Company Workspace

The **Company Workspace** node contains the following functional nodes:

- ▶ **Business Process Setup:** Lets you configure how a business process deployed at the Company level will function.
- ▶ **Business Process Updates:** Lets you update Preventive Maintenance (PM) Books for PM functionality at the Company level.
- ▶ **Planning Manager:** Provides sponsoring companies the ability to create, organize, manage, and update all company or project/shell planning initiatives from conception to completion.
- ▶ **Resource Manager:** Lets you create and manage personnel resources and assign roles to each resource.

- ▶ **Roles**
- ▶ **Resources**
- ▶ **Rules:** Lets you create and manage rules that govern transactions on the Company level cost sheet.
- ▶ **Auto-update Status Setup:** Lets you configure automatic updates of project statuses for active projects.

Company Sponsored Shells

The **Company Sponsored Shells** node lets you configure and manage multiple aspects, such as access, user administration, and rules, of the various types of shells, such as **Buildings**, **Projects**, **Site/Campus**, and so on.

Shell Landing Page (Admin)

After you create a shell, it is available for use.

To access your shell landing page:

- 1) Click the shell tab to open it.
- 2) Switch to **Admin** mode.
- 3) In the left Navigator, click your shell name on top.

The top section of the landing page contains the Shell Dashboard.

By default, the shell dashboard contains the following blocks:

- ▶ **Tasks**
- ▶ **Notifications**
- ▶ **Mail**
- ▶ **Image**
- ▶ **Details**
- ▶ **Links**

By default, the following two tabs are displayed.

- ▶ **Summary**
- ▶ **Workspaces**

You can change the layout of the tabs in My Dashboard.

Example

Block Length: 2 units

Block Height: 2 units

The following explains the various informational blocks in the Summary tab:

- ▶ **Tasks**

This block lists the total number of tasks belonging to the shell. In **User** mode, when you click Tasks, you go directly to the Task log.
- ▶ **Notifications**

This block lists the total number of notifications belonging to the shell. In **User** mode, when you click Notifications, you go directly to the Notifications log.
- ▶ **Mail**

This block lists the total number of e-mails belonging to the shell. In **User** mode, when you click Mail, you go directly to the Inbox log.

Note: Accessing the Tasks, Notifications, and Inbox logs by clicking their respective tabs is not supported in **Admin mode**.

- ▶ **Image**

This block displays an image, if available; otherwise, the block will be blank.

▶ **Details**

This block is displayed with either custom fields or default fields based on the configuration of the details block that is designed in uDesigner, shell manager. In the latest version, the shell home landing page displays the custom fields; otherwise, the shell home landing page only displays the default fields.

You can edit the details block by clicking **My Dashboard > Edit Dashboard** and using the pen icon that appears when hovering over the block. This capability applies to block information, or to the fields that must be displayed in the block.

▶ **Links**

If links have been added to the shell details, then those links are displayed in this block.

Important Information

The **Tasks**, **Notification**, and **Mail** are grouped together in a standard block called "Items Requiring your Attention" that can be added or removed. Individual tiles cannot be added or removed.

You can add this block by navigating to the Add Block button (the plus button with a down arrow), clicking Standard, and selecting Data Type as "Items Requiring Your Attention." When you save the Standard Block, the block will be added automatically to the dashboard.


The following explains the various informational blocks in the **Workspaces** tab:

The **Workspaces** tab is only available when geo-code server details are configured in Unifier.

- ▶ If there is no geo-location present in the sub-shells, Unifier displays a map without location markers.
- ▶ If there is a geo-location present in the sub-shells, Unifier displays a map with location markers.

When you hover over the location markers on the map, you can see the details for the location marker based on available information.

When you right-click the location marker, you can open the shell (for that location) in a new tab.

The left pane of the workspaces tab displays a log of all sub-shells that have been created under the currently selected shell. You can access sub-shell dashboards by clicking the *gear menu* () and selecting **Open**. If you would like to navigate backwards to parent shells, you can use the breadcrumb links listed above the **Workspaces** tab.

The user-created dashboards support all the existing functionalities, except the sub-shell log.

You can show or hide this tab in the **Edit Dashboard** window.

You cannot delete the Workspaces tab in any Dashboard.

The **My Dashboard** submenu (the three dots) enables you to:

- ▶ Access additional dashboards for the shell, if available.
- ▶ Edit Dashboard
To open the editing mode of the current dashboard.
- ▶ Details
To view the shell details, as overlay. The details include Shell Name, Shell Number, and the following tabs:

- ▶ General
- ▶ Currency
- ▶ Options
- ▶ Images
- ▶ Links
- ▶ Calendar
- ▶ Custom Print Template
- ▶ Gateway Integration
- ▶ Print
To print the information on this page.
- ▶ Audit Log
To open the Audit Log as an overlay.

The **Workspaces** tab Sub-shell log has the following toolbar options:

- ▶ View
For example, Buildings, Land, Projects, Regions.
- ▶ Group By
Select, Hierarchy.
- ▶ Actions
 - ▶ Get Activity Sheet Data
 - All Shells
 - Selected Shells
 - Filtered Shells
 - History
 - ▶ Send Activity Sheet Data
 - All Shells
 - Selected Shells
 - Filtered Shells
 - History
- ▶ Search
- ▶ Find on page
- ▶ Expand All Groups

The columns in the Workspaces tab sub-shell log are not hard-coded. The fields defined in Shell Detail form (in uDesigner) are added as columns in the Sub-shell log.

- ▶ Name
- ▶ Shell Number
- ▶ Shell Name
- ▶ Description
- ▶ Status
- ▶ Administrator

- ▶ Location
- ▶ User-Defined Text

The right pane displays the map that shows the regions.

Project Landing Page (Admin)

To access your project landing page (Admin):

- 1) Click your project tab to open it.
- 2) Switch to **Admin** mode.
- 3) In the left Navigator, at the very top, click your project name.

The project landing page has the following elements:

- ▶ Left Navigator contains the following nodes (modules):
 - ▶ Project name
 - ▶ Member Companies
 - ▶ Access Control
 - ▶ User Administration
 - ▶ Setup
 - ▶ Rules
- ▶ Right pane, which contains:
 - ▶ On the top:
 - Tab name: Company Workspace
 - Menu options (File, Edit, View, and Help)
 - Toolbar options (New, Open, and Find)
 - ▶ Below the top, on the left, project general information:
 - Project name
 - Description
 - Number
 - Address
 - City
 - State
 - Country
 - Phone
 - Fax
 - Email Address
 - ▶ Below the top, on the right:
 - Progress
 - Links

Queries

You will be using queries to extract data from the database for reports and data pickers, and to set up auto-creation with creator elements.

A query is a data mining tool—a method for retrieving information from a database. A query filters the information returned from the database according to restrictions or conditions you specify. Unifier queries can:

- ▶ Filter or narrow the data being retrieved for use in reports and manager sheets.
- ▶ Set up conditions or triggers to make something happen automatically.
- ▶ Filter or narrow the data being retrieved for use in a data picker element.

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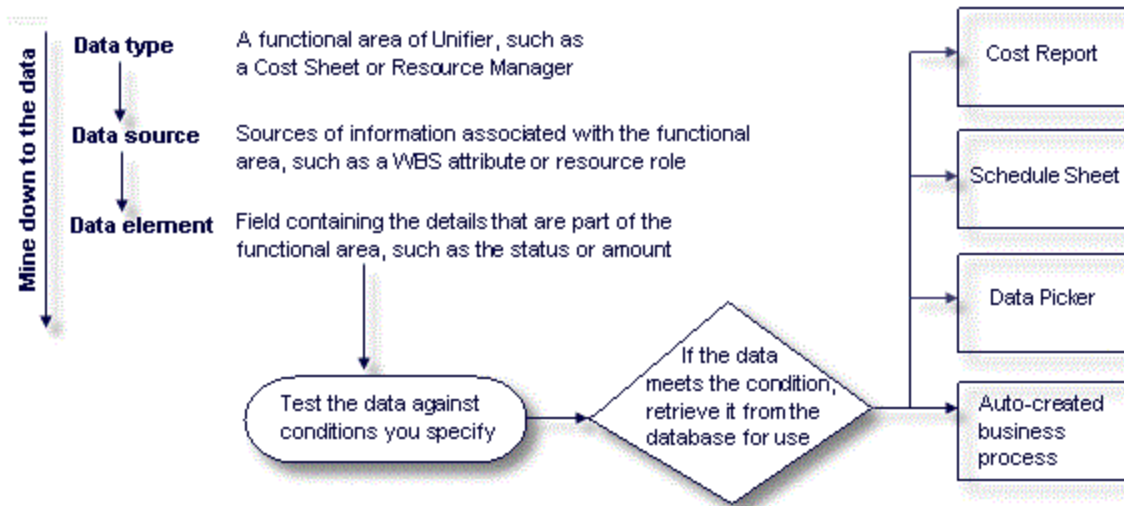
How Queries Work

The way queries work in Unifier is as follows:

- ▶ You mine down to the information you want by choosing an element (field) in the database on which to base the query.
- ▶ You test the data against conditions and values that you specify.

A condition is a state or restriction that the value in the data element (field) must meet. A condition of the value might be that it must be equal to a certain number (for example, 10) or that it must contain a certain string of letters (such as "due date of").

- ▶ When (or if) the data meets the condition you specify, the system retrieves it from the database for use in a report, manager sheet, auto-creation, data picker, and so on.



Using Formulas or Conditions in Queries

For queries, you can evaluate the data before retrieving it from the database to determine whether to include the value in the report, manager sheet, or data picker, or to spawn an auto-creation. To evaluate the data, you can use a formula or a condition.

In formulas, multiple fields can be calculated to arrive at a certain value that the data must meet before it will be used. The value can be one that you enter, or a value from another field.

You can include formulas in conditions.

In the **Condition** field, select the condition the value in the field must meet.

The following explains the formulas that you can use in a query.

Field Value Comparison

The formula for field value comparison produces data that meets a field value (string or numeric) from the form of a business process or a shell in a hierarchy, or a constant. This is then used to populate a data picker.

The screenshot shows the 'Add Query Condition' dialog box. It has the following fields and annotations:

- Data Element:** A dropdown menu with 'Contact Last Name' selected. An arrow points to it with the text: "Test the value of this field..."
- Condition:** A dropdown menu with 'contains' selected. An arrow points to it with the text: "...using this operator..."
- Values:** A section with two radio buttons:
 - Dynamic:** Selected. It contains:
 - Data Source:** A dropdown menu with '-Select-' selected. An arrow points to it with the text: "...against the value of this field in this data source (business process or shell)".
 - Data Element:** A dropdown menu with '-Select-' selected. An arrow points to it with the text: "...against this word(s) or number(s)".
 - Constant:** An empty text input field. An arrow points to it with the text: "...against this word(s) or number(s)".

Below the 'Values' section are 'OK' and 'Cancel' buttons. The text "OR" is centered between the 'Dynamic' and 'Constant' options.

Date Plus or Minus

The formula for date adds or subtracts a value to or from a date.

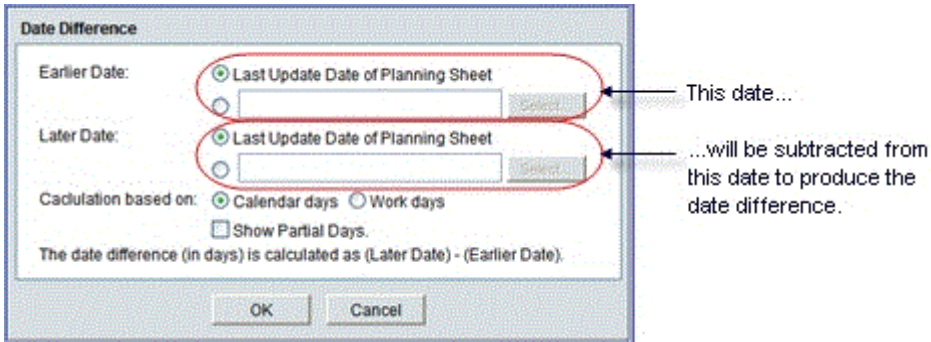
The screenshot shows the 'Date Trigger Condition' dialog box. It has the following fields and annotations:

- Check auto creation conditions on date:** A checked checkbox.
- Data Element:** A dropdown menu with 'Last Service Date' selected. An arrow points to it with the text: "This date..."
- Add/Subtract days:** A dropdown menu with 'Plus' selected. An arrow points to it with the text: "...plus or minus..."
- Number of days:** A section with two radio buttons:
 - Data Element:** A dropdown menu with '-Select-' selected. An arrow points to it with the text: "...the value in this element...".
 - Days:** A text input field with '0' entered. An arrow points to it with the text: "...this number of days.".

The text "OR" is centered between the 'Data Element' and 'Days' options.

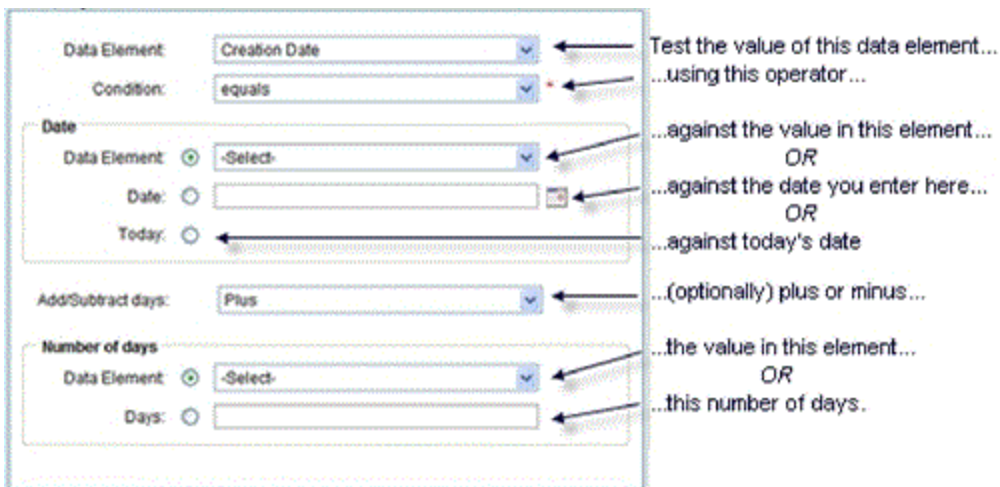
Date Difference

The formula for date difference subtracts one date from another to give you the number of days between the dates.



Compare Date Fields

You can also compare date fields as part of a query.



Dynamic Date Value

You can compare a date field value with a date field from the form of a business process or a shell in a hierarchy, a specific date, or today's date, and also add or subtract days to the result. This is then used to populate a data picker.

The screenshot shows the 'Add Query Condition' dialog box with the following fields and annotations:

- Data Element:** Set to 'Date'. Annotation: 'Test the value of this data element.'
- Condition:** Set to 'equals'. Annotation: '...using this operator...'
- Date Section:**
 - Dynamic:** (Selected)
 - Data Source:** '-Select-'. Annotation: '...against the value of this field in this data source (business process or shell)'
 - Data Element:** '-Select-'. Annotation: 'OR ...against the date you enter here...'
 - Date:** (Unselected) with a date picker icon. Annotation: 'OR ...against today's date'
 - Today:** (Unselected). Annotation: '...against today's date'
- Add/Subtract days:** Set to 'Plus'. Annotation: '...(optionally) plus or minus...'
- Number of days Section:**
 - Dynamic:** (Selected)
 - Data Source:** '-Select-'. Annotation: '...the value of this field in this data source...'
 - Data Element:** '-Select-'. Annotation: 'OR ...this number of days.'
 - Days:** (Unselected) with a text input field.

Buttons at the bottom: OK, Cancel.

Between Dates

You can compare a date field value to see if it falls between two dates. This is then used to populate a data picker.

The screenshot shows the 'Add Query Condition' dialog box. At the top, 'Data Element' is set to 'Date' and 'Condition' is set to 'between'. Below this, there are two 'Date' sections. Each section has a 'Dynamic' radio button selected. In each 'Dynamic' section, the 'Data Source' and 'Data Element' dropdown menus are highlighted with red circles. To the right of the dialog, text labels with arrows point to these elements: 'Test the value of this date to see if it is between...' points to the 'Condition' dropdown; '...the date in this field in this data source (business process or shell)' points to the 'Data Source' dropdown; 'OR' points to the 'Data Element' dropdown; '...the date you enter here...' points to the 'Date' text input; 'OR' points to the 'Today' radio button; and '...today's date...' points to the 'Today' radio button. Between the two 'Date' sections, the word 'AND' is displayed. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Assignee Filter Query Condition

When you are setting up a business process, you can filter the condition for the *assignee* according to:

- ▶ Contains
- ▶ Does not contain
- ▶ Exists in
- ▶ Does not exist in
- ▶ Equals
- ▶ Does not equal
- ▶ is empty
- ▶ is not empty

The following is an example of query evaluation. The workflow setup follows these policies for selecting users.

Assignee	Query Field (Role as defined in the User Attribute Form)
A	Approver

Assignee	Query Field (Role as defined in the User Attribute Form)
B	Reviewer
C	Controller-Approver
D	Controller
E	Reviewer-Submitter
F	Submitter
G	Approver

The following shows examples with condition/operator:

Condition/Operator	Business Process Form (Field value) Example of the data source used.	Filtered List of Assignees
exists in	Controller-Approver	A, C, D, G
	Reviewer	B
does not exist in	Controller	A, B, C, E, F, G

Note: If the workflow setup has any of the new operators, the list of *assignees* that the user sees at runtime retains the stated query parameters.

The following shows examples with value, condition/operator, and result:

Value 1	Condition/Operator	Value 2	Result
ABC	exists in	ABC, BCD, CDE	True
XYZ	exists in	ABC, BCD, CDE	False
ABC	does not exist in	ABC, BCD, CDE	False
XYZ	does not exist in	ABC, BCD, CDE	True
ABC, BCD, CDE	contains	ABC	True
ABC, BCD, CDE	contains	XYZ	False
ABC, BCD, CDE	does not contain	ABC	False
ABC, BCD, CDE	does not contain	XYZ	True

Query Based Data Element (QBDE)

A Query Based Data Element (QBDE) lets you view data from the Upper Form or Detail form of a Business Process. QBDE also lets you view data from:

- ▶ Other Business Processes
- ▶ Sheets
- ▶ Cash Flow

The QBDEs are based on the “SYS Numeric Query Based” Data Definition (DD), and the query for these QBDEs is set in the Business Process Configuration setup. For more information, see **Configure a Query for a Query Based Data Element on a BP** in the *Unifier Modules Setup Administration Guide*.

In addition to the Web interface (Unifier application in the browser), the system evaluates QBDE in the following areas:

- ▶ CSV import for record creation
- ▶ CSV import for Line Item creation
- ▶ Web Service methods for record creation along with Line items
- ▶ Web Service methods for Line Item creation
- ▶ Web Service methods for record updates
- ▶ Bulk Edit
- ▶ Bulk Update
- ▶ Creating BP records using BP

Note: Oracle recommends that you do not use a Required field to create a query that uses a Data Picker, Cost Breakdown Structure (CBS) Picker, or Fund Breakdown Structure (FBS) Picker. If the data entered in a data element (DE) field with a Required condition is *cleared*, the system bases the query on the previous value of the field.

Evaluating Query Setups of Data Picker Data Elements

The system supports many types of Data Picker DEs. The Administrator can set up Query conditions on these Data Picker DEs to filter the results. When a Data Picker DE is launched in the Web interface, the system runs the query and displays the records based on the queries defined in uDesigner. The system evaluates the data picker query conditions in the following areas, as well:

- ▶ CSV import for record creation
- ▶ CSV import for Line Item creation
- ▶ Web Service methods for record creation along with Line items
- ▶ Web Service methods for Line Item creation
- ▶ Web Service methods for record updates

The following is a list of the supported Data Pickers:

- ▶ BP Data Picker

- ▶ Shell Data Picker
- ▶ User Data Picker
- ▶ CM Data Picker
- ▶ Role Data Picker

Note: If a BP Data Picker (BP Picker) or any Data Picker is selected as a trigger element for QBDE and the picker value is automatically populated (auto populated) instead of manual entered, the QBDE element will not be evaluated.

For more information about importing data, see **Importing Configuration Packages** in the *Unifier Modules Setup Administration Guide*.

Creating a Record from the Query Based Tab

When creating a record from the Query Based tab of another BP (that auto-populates data to the record being created), the Data Element (DE) of type “SYS Numeric Query Based” Data Definition (any DE of this type) *is not updated*, unless the user manually changes the trigger element.

If a query condition involves only constant dates, it is not converted based on the user's time zone.

Defining the Format of the Currency for QBDE

You can use the QBDE to get the count of records. As a result, you can format the DEs that are query-based to hide the currency symbol. That is, you have the option to hide the currency symbol, at the data element (DE) level. As a result, when viewing the value in a query-based DE, the system displays the correct format so that the number makes meaningful sense.

Example

A Budget Change BP may have the 'Count of Change orders' QBDE (defined as a DE of SYS Numeric Query type) associated with the BP. On the same BP, there may be another QBDE 'Sum of All Change Orders' which needs the formatting of a Currency DE. You can choose whether to display the currency symbol for these DEs at runtime.

In the **Admin** mode, you define the Data Element (DE) that is query-based, add it to the BP form, and set up the query. In the **User** mode, you can see the results in the run-time (for example, displaying or not displaying the currency symbol).

The Data Element properties tab of SYS Numeric Query Based Data definition contains a check box option for hiding the currency symbol in Cost type BP. By default, this option will be deselected.

Note: When the same DE is placed in non-Cost BPs, this option will be ignored because these BPs do not display currency symbol for data

definition with Input type of Currency Amount at runtime.

Go to: **Company Workspace (Admin mode) > Data Structure Setup > Data Elements** to find the DEs that are query-based.

Click **Find** and enter "qbde" in the Search for field box to find the DEs.

When you open a query-based DE (**Modify Data Element** window), you have the option to select, or deselect, the Hide Currency Symbol in Cost type Business Process option.

Depending on your selection, the system displays, or hides, the currency symbol for the query-based DE.

Configuration Package

The format set in the DE must be included in the bundle.

Dashboards


Similar to other software applications, the dashboard in Unifier is a user interface that provides a view of important performance indicators and data related to the shell, organization, or company.

The *shell* dashboard is a general view of a specific shell's data, and it is not specific to any one user view of data; therefore, the administrators can create multiple shell instance dashboards per shell.

Administrators can configure the dashboard from the **Dashboards** sub-node, under the **Setup** node: <shell> (**Admin mode**) > **Setup** > **Dashboards**.

The **Dashboards** log contains a list of existing dashboards, and the details are listed in the following columns:

- ▶ **Name**
- ▶ **Description**
- ▶ **Last Modified By**
- ▶ **Last Modified Date**

Use the *gear menu* () located next to each item on the log to conduct the following on each dashboard listed:

- ▶ **Open**
- ▶ **Copy**
- ▶ **Mark as Default (Unmark as Default)**
- ▶ **Delete**

Depending on the setup, this option will change. If the **Mark as Default** option is available, the selected dashboard name will replace the label **My Dashboard** on the shell landing page. If the **Unmark as Default** option is available, the label **My Dashboard** will replace the selected dashboard name on the shell landing page.

The **Dashboards** log also lets an administrator:

- ▶ Create, delete, or find dashboards by using the following toolbar options:
 - ▶ **Create**
 - ▶ **Delete**
 - ▶ **Find on Page**
- ▶ Change the dashboard properties and set permissions within the following tabs on the right pane:
 - ▶ **Properties** tab
 - Change the dashboard name (**Name**)
 - Provide a description for the dashboard (**Description**)
 - ▶ **Permissions** tab
 - Displays the **Selected Users/Groups**
 - Enables you to **Add User**
 - Enables you to **Delete User**

If a user has the **View** permission, the user can only view an existing dashboard: <shell> (**User mode**) > **My Dashboard** > <dashboard>, as shown below.

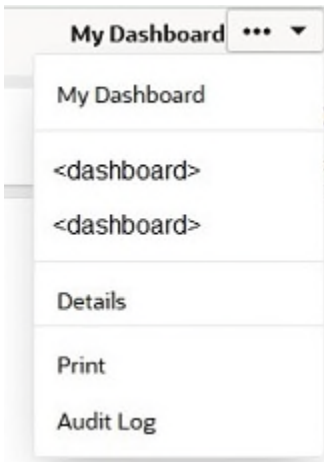


Figure 1: My Dashboard - View only

If a user has the **Edit** permission, the user can edit My Dashboard: <shell> (**User mode**) > **My Dashboard** > **Edit Dashboard**, as shown below.

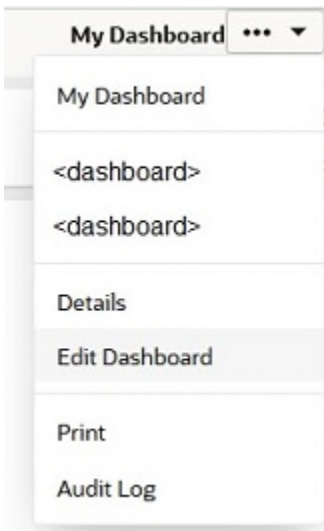


Figure 2: My Dashboard Edit

A user who creates a shell can create a dashboard for that shell.

Self-Service Portal

The Self-Service Portal enables users to sign in and work with specifically-enabled business processes. For example, Oracle Primavera customers use Unifier for corrective work order management. These work requests are usually generated from project participants who do not use Unifier. These participants can use the Self-Service Portal, which allows request submittals through a web-based tool. Users can use the Self-Service Portal to submit requests and to view the status of these requests, and to collaborate on submitted requests.

In uDesigner, you can enable certain business processes to be accessed through the Self-Service Portal. The business processes that you can enable to be accessed through the Self-Service Portal must have the following characteristics:

- ▶ Simple
- ▶ Company level
- ▶ Non-workflow
- ▶ Multi-record

The actions users can take through the Self-Service Portal are:

- ▶ Create a business process
- ▶ Modify a business process
- ▶ Add or remove business process attachments
- ▶ Add General Comments to a business process

Before you begin, design the Landing Page in terms of the text and graphics that you want it to contain. Then:

Step 1: Set Landing Page permission.

Step 2: Configure and activate the Landing Page.

Step 3: Specify users that receive portal-specific notifications. For more information, see **Setting Up a Non-Workflow Business Process** in the *Unifier Modules Setup Administration Guide*.

Setting Up a Self-Service Portal Landing Page

Note: You must have Configure permission to be able to configure a Portal Landing page.

To set Landing Page permissions:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) On the right pane, select **Administration Mode Access > Configuration > All > Landing Page**.
- 4) Set the permission as needed: **Configure:** Administrators can configure Self-Service Portal Landing Pages.

Configuring and Activating a Portal Landing page

If you have the Configure permission for the Self-Service Portal Landing Page, then you can use an HTML editor to set up a Landing Page. After you configure and activate the Portal Landing Page, users signing in to the Self-Service Portal will see this landing page. You can configure one Landing Page, and activate this page for use.

Note: If the Landing Page is not configured, then the user who signs in to the Self-Service Portal will see the **Announcement** page.

To configure and activate a Portal Landing page:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **Configuration** grouping node and click **Landing Page**.
- 3) Click **New**.
- 4) Enter the **Setup Name** of the Landing Page, and an optional **Description** of the page. The default initial status of the page is **Inactive**. You can change this status after you complete the page.
- 5) Click the **Layout** tab.
- 6) Use the **HTML** editor to add text, and perform other editing functions.
- 7) Click the **Insert Image** button (second button from the right in the toolbar) to insert an image into your Landing Page. Browse for the image, and click **OK**, and **Close** after the upload is complete.
- 8) Click **OK**.

To activate a Portal Landing page:

- 1) Go to the **Company Workspace** tab and switch to Admin mode.
- 2) Click **Configuration > Landing Page** in the left Navigator.
- 3) Select the Landing Page in the log.
- 4) Choose **Status > Active**. You can inactivate the Landing Page by choosing **Status > Inactive**. When a Landing Page is inactive, the user who signs in the Self-Service Portal sees the Unifier **Announcement** page. If no active Landing Page is set up, the portal user sees a default Landing Page.

Adding & Managing Partner Companies

An Owner Company (also referred to as a Sponsor Company) may work with one or many Partner Companies (for example, subcontractors, vendors, and so on) to work on projects/shells or company-level activities. Company Administrators can manage Partner Companies and users. The Site Administrator will first add the potential Partner Company to the list of available companies, from which you can select the companies to activate. Partner Company users can be granted access to specific company-level and project/shell-level features.

Note: Contact your Site Administrator to add a company to the list of available companies.

When a Partner Company user is added to a project/shell, the system verifies that the user's company is a Member Company; if not, the system adds the Partner Company. When a Partner Company is removed from a project/shell, the Partner Company users are automatically set to Inactive.

To access Partner Companies:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node.
- 3) In the left Navigator, click the **Partner Companies** functional node. The Partner Companies log opens. The log will display any current Partner Companies.

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Add a Partner Company

Adding a Partner Company to the list lets you work with Partner Company users within the system.

Note: When a Partner Company user is added to a project/shell, the system verifies that the user's company is a Member Company; if not, the system adds the Partner Company. When a Partner Company is removed from a project/shell, the Partner Company users are automatically set to Inactive.

To add a Partner Company:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node and click **Partner Companies**.
The Partner Companies log opens.
- 3) Click the **New** button. The New Company window opens to display the following tabs:
 - ▶ **General**: To input identifying information about the company, such as the company name and home page URL.
 - ▶ **Address**: To input the company address information.
 - ▶ **Security**: To set up the password and login policy for the users from the company.
 - ▶ **Contact**: To add contact information for support resources.
- 4) In the **General** tab, set the status to **Active** to enable users from the company to be added to company or project/shell functions.
- 5) After all the information is added, click **OK** to save.
- 6) To search for a particular company, click the **Find** button. The Find box opens at the top of the window. Click the Search By drop down and choose **Company Name** or **Contact Name**. Enter the search criteria in the **Search for** field and click the **Search** button.

Remove a Partner Company

If you no longer want users in a Partner Company to participate in your company or project/shell areas, you can set the company status to **Inactive**.

- ▶ The Partner Company users that have been added as users either under your company (Partner Users node) or in any projects/shells will be deactivated automatically.
- ▶ If the Partner Company being deactivated has previously been added to a project/shell as a "member company," the company will remain in the Partner Companies log, but users will be deactivated.
- ▶ These deactivated users cannot be reactivated unless the Partner Company status is set back to **Active**.

To remove a Partner Company:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Companies**.
- 3) In the Partner Companies log, select a Partner Company and click **Open** (or double-click).
- 4) In the **General** tab, set the **Status** to **Inactive**.

View Partner Company Profile

Partner Company details are managed by the Company Administrator for the company, or the Site Administrator. You can view the details.

To view the company profile of a Partner Company:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Companies**.
- 3) In the Partner Companies log, select a Partner Company and click **Open** (or double-click).
The Company Profile window opens. The information in this window is read-only, and is maintained by the Partner Company's administrator.

Access Company Details (Edit Company Window)

Company detail information is managed in the **Edit Company** window (also known as the Company Properties window).

To access the window:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the toolbar, click **File** and select **Open**.

The **Edit Company** window has the following tabs:

- ▶ **General:** Use this tab to manage several company features, which are described in the next topic. The fields with red asterisks are required.
- ▶ **Address:** Use this tab to enter up to seven company addresses. There must be at least one address entered for the company headquarters.
- ▶ **Security:** Use this tab to set up a file security policy and a password/login policy that your users must follow after they sign into the system.
- ▶ **Contact:** Use this tab to maintain support contact and e-Learning access information for your users. The information entered here appears in the Support window (Contact tab). To access the Support window, click **Help** in the upper-right corner of the Unifier window, and select **Contact Support** from the menu.
- ▶ **E-Signatures:** Use this tab to manage the default e-signature type, DocuSign setup or Adobe Acrobat Sign (Adobe Sign) setup, to use these digital E-signature solutions within Unifier documents.
- ▶ **Outgoing E-mails:** Use this tab to specify the size (in megabyte [MB]) of attachments allowed in each outgoing email.

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Edit Company (General Tab)

To complete the **General** tab:

In this field:	Do this:
Name	Enter a company name, up to 64 characters. It can include alphanumeric characters, spaces, and punctuation.
Short Name	Enter a one-word short name, up to 60 characters. The Short Name is a unique, one-word abbreviated form of your company name, and is used throughout the system in place of the company name. (For example, it might be used in uDesigner-created business processes and on logs that identify partner companies.)
Description	Enter a company description. This is displayed on the Administration (Admin) mode home page. This can be useful for identifying partner companies, such as subcontractors or vendors.
Contact Name	Click Select , and then select a user from the User/Group picker. This name is displayed on the Company Home Page in Administration and User Modes. The list is generated from the list of active users in the Users log (User Administration > Company Users).
DUNS	Enter the nine-digit Dunn & Bradstreet business identification number.
Home Page URL	Enter the URL of your company's web site. This is displayed on the Company Home Page as a hyperlink.
Help URL	Enter an additional URL to point to internal documentation regarding company policies or practices, an intranet site, or other internal information that you choose. This is displayed on the Company Home Page as a hyperlink.
Test Environment Label Note: This field is only visible when you are viewing a Test Environment.	If this is a Test Environment, use this field to specify a name for the environment, which makes it easier to differentiate between Test, Development, and Production Environments. You can enter an alphanumeric name that is up to 30

In this field:	Do this:
	<p>characters in length. You can use underscores (_) and hyphens (-).</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ The label does not need to be unique across multiple test environments. ▶ Changes are not reflected until you sign out and sign in again. ▶ All changes are reflected in the Event Audit Log.
Status (read-only)	Company status is controlled by the Site Administrator.
Image	Similar to the Image field in the Shell properties, this field lets you include a picture that represents the company.
Bid Management Account	<p>Enter the account name of the user who will be managing the bids that your company receives.</p> <p>This is the account that will contain the bidder's preferences you specify when you create the bid management account. For more information, see the <i>Unifier Modules Administration Guide</i>.</p>
Owner	Selecting this option allows a company to sponsor projects/shells, and is controlled by the Site Administrator. The check box will not be selected if the company is a partner company that is not authorized to sponsor projects/shells.
Maximum Limit for UDR records	The Company Administrator will be able to set the maximum number of records to be retrieved for the company. By default, the maximum number will be set to 1 million. The Company Administrator will have multiple options to choose from and then can set the maximum limit.
Display element for Project/Shell	<p>By default, the "Name" option is selected. Based on the setting in this field, the labels change in the following areas:</p> <p>Top navigation tabs</p> <p>Breadcrumbs</p> <p>The first (top) left menu node (Home node) for the Project/Shell</p>

In this field:	Do this:
	<p>Bookmarks: Add new bookmark (editable label of bookmark)</p> <p>If the user selects the "Name" option to display the Shell name, the default string will appear as "{Shell Name} - {Location}" when adding a new bookmark.</p> <p>If the user selects the "Number" option to display the Shell number, the default string will appear as "{Shell Number} - {Location}" when adding a new bookmark.</p> <p>The tooltips will be seen in format: {Shell Number} - {Shell Name}</p>
Hide Tabs in Company Dashboard	<p>When selected:</p> <ul style="list-style-type: none"> ▶ No tabs will be displayed on the company dashboard and only the company workspace information is displayed. ▶ The Summary and other tabs created will be hidden and only the General tab will be visible. There will be no General tab heading, because there is only one (1) tab on the dashboard. The user will only see the General tab along with the logged in user's information. ▶ The Edit Dashboard option will be hidden. <p>By default, this option will be deselected. So all users will be able to view and modify the Summary tab of the dashboard, and the Edit Dashboard option is enabled.</p>
Base Currency	<p>The Base Currency is the default currency used by the company. Although it might be set by Oracle when the system is first provisioned, the Base Currency must be selected the first time that the Company Administrator signs in. No other users are allowed to sign in until the Company Administrator sets the Base Currency. Because the type of currency plays a large role in nearly all financial functions, the Base Currency cannot be changed after data has been entered into the system.</p> <p>For more information, see Base Currency</p>

In this field:	Do this:
	Confirmation.
Source for Activity Sheet data	<p>Users who have the edit permissions to company properties should be able to modify or add the P6 and Oracle Primavera Cloud URLs.</p> <p>This block lets you provide a link to a source (for Activity Sheet) application, P6 or Oracle Primavera Cloud:</p> <p>P6 URL (format: https://site_url/p6/...)</p> <p>Primavera Cloud URL (format: https://site_url/web/...)</p> <p>By default, the URL fields will be empty with a place holder text to show the format. There will be no link shown in a project activity sheet when a user does not enter any URL in company properties.</p>

Edit Company (Address Tab)

Enter the company address information in the following fields. All fields with a red asterisk are required:

- ▶ **Address Type:** Select from the list.
 - ▶ Headquarters
 - ▶ Main
 - ▶ Branch Office
 - ▶ Billing
 - ▶ Shipping
 - ▶ Billing and Shipping
 - ▶ Satellite Office
- ▶ **Attention**
- ▶ **Address 1, 2, 3**
- ▶ **City**
- ▶ **State/Province**
- ▶ **Zip/Postal Code**
- ▶ **Country/Region**

- ▶ **Phone**
- ▶ **Fax**

For more information, see ***Manage Company Addresses (Address Tab)*** (on page 69).

Manage Company Addresses (Address Tab)

At a minimum, a Headquarters address must be entered in the Edit Company window. The Headquarters address will be the default company address. The default address displays on the Company Home page and is used to generate an online company location map. You can add up to six additional company addresses.

To manage company addresses:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the right pane, click **Open**. The **Edit Company** window opens.
- 3) Click the **Address** tab.
- 4) Complete all fields marked as mandatory (red asterisk *). To enter additional addresses, click **Address Type** and choose another address to enter. See the table below for details.
- 5) Click **Apply** to save changes, or **OK** to save and close the Edit Company window.

In this field:	Do this:
Address Type	Click the field and select from the drop-down list. At a minimum, an address for Headquarters is required, which is used as the default company address in the system. You can enter up to seven company addresses (for example, billing).
Attention	Click the Select button and select a user from the picker.
Address and phone fields	These are text fields. No validation will be performed on these fields. All fields with a red asterisk are required. Select the Country/Region from the drop-down list.

Edit Company (Security Tab)

Complete the blocks and fields on the **Security** tab as described:

In this block:	In this field:	Do this
File Security Policy	Size Limit per File in MB:	Enter a size limit number.
File Security Policy	File Upload Restrictions	Use this section to configure (whitelist) the types of files that a user can and cannot upload to the system.

In this block:	In this field:	Do this
		<p>Allow File Extensions: Enter the file extensions separated with commas. Example</p> <ul style="list-style-type: none"> ▶ Allow File Extensions: Selected ▶ Allow: .png, .pdf, .jpg ▶ Block: Blank ▶ Files that the user can upload: .png, .pdf, .jpg <p>Or</p> <ul style="list-style-type: none"> ▶ Allow File Extensions: Selected ▶ Allow: Blank ▶ Block: Blank ▶ Files that the user can upload: No file can be uploaded as nothing specified in Allow. <p>Block File Extensions:</p> <ul style="list-style-type: none"> ▶ Block File Extensions : Selected ▶ Allow: Blank ▶ Block: .mov ▶ Files that the user can upload: All file types except .exe and .mov <p>Or</p> <ul style="list-style-type: none"> ▶ Block File Extensions: Selected ▶ Allow: Blank ▶ Block: Blank ▶ Files that the user can upload: No restrictions, but the user cannot upload .exe files because the system prevents it.
File Security Policy	Virus Scan Alerts	If you do not want to display a Confirmation message to a user who tries to access or download a file that has

In this block:	In this field:	Do this
		<p>not yet been scanned, select the Do not alert the user when a file that is pending scan for threats is being downloaded check box.</p> <p>Note: This option is only visible if you are using an Oracle Cloud-based Unifier deployment.</p>
<p>Hyperlink Picker Security Policy</p>	<p>URI Restrictions</p>	<p>Use the Allow URIs field to specify custom Uniform Resource Identifiers (URIs) that can be used by your company. Valid URIs must start with a letter, but can contain numbers and certain symbols, including "+", "-", and ".".</p> <p>Note: When a company chooses to allow additional URIs, such as FTP, the system will relax the current validations that are in place for URL standards. However, validations will still be applicable to HTTP and HTTPS URIs, and all other standard requirements, such as the use of double forward slashes (//) are enforced.</p>
<p>Cost Sheet Restrictions Policy</p>	<p>Override column restrictions</p>	<p>View or edit a cost sheet column if any of the restricted groups, or the individual user, is allowed to view or edit the column.</p> <p>By default, this option is not selected.</p>
<p>User Attributes Policy</p>	<p>Hide User Profile</p>	<p>Select this box to hide the basic information of the user associated with the field.</p>

In this block:	In this field:	Do this
IP Filtering Policy	Allow IP Addresses for REST WebServices	<p>Enter IP addresses to allow in the IPv4 or IPv6 fields by using separators ',' (comma) or ';' (semicolon). You may enter IP addresses in CIDR notation to allow IPs in a particular range. The maximum number of characters allowed for the IPv4 or IPv6 fields is 1000, and duplicate IP addresses will be removed. This Allow IP list filtering can be bypassed if 'EXTERNAL_REQUEST' header parameter is not provided in the request or 'EXTERNAL_REQUEST' header parameter is set to false.</p>
Partner User Proxy Login Policy	Allow Partner Users to grand Proxy login access to Owner Company Users	<p>Select this box to allow a Partner User to add Owner Company Users as Proxy users. Administrators can also add themselves as Proxy Users of Partner Users.</p>
Password/Login Policy	Password/Login Policy	<p>Select the necessary options and enter values. For details on each field, see Manage Company Password Policy (Security tab) (on page 73).</p>

Manage Company Password Policy (Security tab)

Sponsor company administrators can specify password security policies in the Security tab of the Edit Company window. By default, the minimum password requirement is set at one (1) character, meaning that the user is required to create a password with a minimum of one character. If a value is not entered in a field, the option is ignored. These settings apply to Sponsor/Owner company users only. These will not apply to Partner Company users. For the Partner Company users, the default settings apply.

To manage user password criteria:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the right pane, click the **Open** button. The Edit Company window opens.
- 3) Open the Edit Company window and click the **Security** tab.
- 4) Select the password criteria that you want to configure, then enter the value in the text box. See the following table for details on each option.
- 5) Click **Apply** to save changes, or **OK** to save and exit the Edit Company window.

Select this option:	To specify:
Minimum overall character(s)	Minimum number of characters that a password must contain; default is one (1)
Maximum overall character(s)	Maximum number of characters that a password must contain
Minimum numeric character(s)	Password must contain a minimum amount of numbers
Minimum alphabetic character(s)	Password must contain a minimum amount of letters
Minimum special character(s)	Special characters are [!@#\$%^&*()-_+=;:"',.<.>/?]
Password cannot be same as user name	Users cannot use their user name as their password
Password cannot be same as first or last name	Users cannot use their name as their password
Password cannot be same as last	A newly changed password must be different from previously used ones (indicated the number here)
Password expiration	If password expires, users will be prompted to change it when attempting to log on
Inform user before expiration	Upon signing in, users are warned that their passwords are about to expire and given the option of changing it
Maximum login attempts	If user does not successfully log on after this number of attempts, the account will become

Select this option:	To specify:
	locked
Suspend inactive user after	Sets the number of days of inactivity before a user's account is locked
Password recovery secret questions required	If selected, users will be prompted to set up security questions for password reset upon first login. Existing users will be prompted to set up security questions upon the next login. Note: This option is available for Owner, Partner, and Hosting companies. When selected, it makes it mandatory for users to set up the password recovery secret questions. This is applicable to all users in the respective companies including Company Administrators and site Administrator.
Apply Password Policy for Bidders	Select if you would like the same settings to apply to Bidders logging into the system.

Edit Company (Contact Tab)

The **Contact** tab has the following blocks:

- ▶ **Support Contact Info**
Enter values in each field.
- ▶ **eLearning Access**
Enter values in each field.

For more details, see *Manage Support and eLearning Contact Information (Contact Tab)* (on page 75)

Manage Support and eLearning Contact Information (Contact Tab)

In the Contact tab of the Edit Company window, you can provide your users with an email address and/or phone number of your internal support staff. This information will be displayed in error messages users may encounter if their accounts become locked, on the Support window Contact tab, and at the bottom of email notifications. The information included for email notification can contain a hyperlink to your local support. For information about translating Email Notifications, see the ***Internationalization (Email Notifications)*** section.

In addition, if your company is part of the eLearning suite of interactive tutorials, you can provide access information to your users in this tab. This space can also be used for any location (such as an internal website) where you have provided Unifier training materials.

To manage user support contact information:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the right pane, click the **Open** button. The Edit Company window opens.
- 3) Open the Edit Company window and click the **Contact** tab.
- 4) Under Support Contact Info and eLearning Access, you can add or modify the contact information as needed. See the following table for details.
- 5) Click **Apply** to save changes, or **OK** to save and exit the Edit Company window.

To complete this section:	Enter this information:
Support Contact Info	<p>Email: Email address for company internal support.</p> <p>Phone: Phone number for company internal support.</p> <p>Instructions: Information that appears in the Support window Contact tab, as well as the Email and Phone from above. This provides information to your users on how to use the support information.</p> <p>Email Notifications: Information that appears at the bottom of email notifications. This field supports simple html formatting, and can include a hyperlink. For example:</p> <pre><p>For YourCompany support, contact support@yourcompany.com or 1-800-555-1212. </p></pre> <p>which will display in the bottom of record email notifications as:</p> <p>For YourCompany support, contact support@yourcompany or</p>

To complete this section:	Enter this information:
	1-800-555-1212.
eLearning Access	<p>URL: Enter the URL for eLearning access. It is best to include the entire address</p> <p>Label: This is the label for the URL above. The label can display the actual URL, or you can a different label. This will appear as a hyperlink to users.</p> <p>Contact email: Enter an email address that you would like users to use if they need to contact someone. Enter a valid email format, for example, elearn@yourcompany.com.</p> <p>Instructions: You can enter instructions or other information such as a contact phone number. This field does not support html formatting.</p>

Edit Company (E-Signatures Tab)

The **E-Signatures** tab contains the following fields and blocks:

- ▶ **Default E-Signature Type**
- ▶ **DocuSign**
- ▶ **Adobe Sign**

The following provides details:

Field/Block	Description
Default E-Signature Type	(Mandatory field) To select the default technology that provides an electronic signature solution for the company.
DocuSign	<p>This block contains the following fields and options:</p> <ul style="list-style-type: none"> ▶ Url: The API URL which the customer or Oracle attains after acquiring the license. ▶ Account Id: The ID for the DocuSign account ▶ Client ID: To enter the user identification needed to log on to Adobe Acrobat Sign. ▶ Client Secret: This field is needed to

Field/Block	Description
	<p>set up integration between the system and DocuSign.</p> <ul style="list-style-type: none"> ▶ Token: This field is needed to set up integration between the system and DocuSign. ▶ Status: Inactive by default. When you click Active, the system tests the connection. If the connection is successful, then you will be able to lock the status as Active. If the connection is not successful, then you will be receiving pertinent messages, and the status will remain as Inactive. If you successfully change the Status as Active and then change any of the fields, the Status changes to Inactive, and you must select Active to run the test connection. ▶ Generate Token ▶ Test Connection <p>To establish a connection between the system and DocuSign:</p> <ol style="list-style-type: none"> 1) Click Generate Token. The system inspects the integrator key and the client secret and directs the end-user to DocuSign URL to enable them to log in to their Demo or Production DocuSign account. 2) After the end-user logs in to their DocuSign account, the token will be generated automatically in the Token field. 3) Click Test Connection to ensure that the connection has been made successfully. This option is available after you successfully entered in, and selected values for, all the fields. If the testing the connection fails, the system displays the error message: Integrator key / Client Secret / Token combination is not correct. 4) Follow the prompts to complete the work.

Field/Block	Description
Adobe Sign	<p>This block contains the following fields and options:</p> <ul style="list-style-type: none"> ▶ Url: The API URL which the customer or Oracle attains after acquiring the license. ▶ Client ID: To enter the user identification needed to log on to Adobe Acrobat Sign. ▶ Client Secret: This field is needed to set up integration between the system and Adobe Acrobat Sign. ▶ Token: This field is needed to set up integration between the system and Adobe Acrobat Sign. ▶ Status: Inactive by default. When you click Active, the system tests the connection. If the connection is successful, then you will be able to lock the status as Active. If the connection is not successful, then you will be receiving pertinent messages, and the status will remain as Inactive. If you successfully change the Status as Active and then change any of the fields, the Status changes to Inactive, and you must select Active to run the test connection. ▶ Generate Token ▶ Test Connection <p>To establish a connection between the system and Adobe Sign:</p> <ol style="list-style-type: none"> 1) Click Generate Token. The token will be generated automatically in the Token field. 2) Click Test Connection to ensure that the connection has been made successfully. This option is available after you successfully entered in, and selected values for, all the fields. 3) Follow the prompts.
OK	Click when you are finished.
Cancel	Click to exit the tab.

Edit Company (Outgoing E-mails Tab)

The **Outgoing E-mails** tab lets you set the maximum file size for each of your outgoing emails, in megabytes (MB), by entering a numeric value in the **Total Size of Attachments in Each Outgoing E-mail** field.

To set the maximum file size for each of your outgoing emails to your system default specification, either click the **Set to System Default** option or enter zero (0) in the **Total Size of Attachments in Each Outgoing E-mail** field.

If the size of your email is larger than the limit set for the recipient's server, the system truncates *all the attachments* in the email body to reduce the email size. The system also appends a custom-defined text in the email body informing the recipient that the email attachments have been deleted, informing the recipient to sign in to the system to view the email.

Background Jobs

The system uses jobs to perform various:

- ▶ Operations (such as auto creation)
- ▶ Scheduled jobs (such as user-defined report [UDR] runs)
- ▶ Record creations (from workflow [WF] templates)
- ▶ Analytics data pushes (to staging table)

There are several nodes under **System Information** that provide access to detailed information about background jobs. These nodes, **Background Jobs**, **Background Jobs History**, and **Background Jobs Statistics**, provide certain users and groups (Company Administrators) with access to a list of current jobs and their status, information about jobs that have previously run and what their schedule and impact is for running again, and a more detailed view that lets you filter and sort jobs for a visual cue that helps identify potential issues.

All current jobs (scheduled UDR, scheduled refresh of the attach flow, BP record creation using templates) across the shells are run based on the time zone that you set up in the company **Background Jobs** module (company-level time zone). In cases where the project time zone is different from the company time zone (for example, facilities based on a certain geographical location), you can go to the shell details (**Details > Options** tab) and from the **Time Zone for Background Jobs** drop-down list select the desired time zone for all shells in the log. After saving your changes, all the jobs within the shell will use your selected time zone.

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Setting Permissions for the Background Jobs Nodes

Access to the **Background Jobs** nodes is controlled by permissions set in the **Access Control** node.

To set permissions for the Background Jobs nodes:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) On the right pane, select **Administration Mode Access > System Information**.
- 4) Under System Information, open and update **Background Jobs**, **Background Jobs History**, or **Background Jobs Statistics**.

The applicable **Module Permission Settings** window opens. Here you can add, modify, or remove permission settings.

- 5) In the **Module Permission Settings** window, click the **Add** button.

- 6) In the **Permissions Setting for <selected item>** dialog box, click the **Add Users/Groups** button.
- 7) In the **Users/Groups** window, select the intended users and/or groups and click the **Add** button.
- 8) To return to the Permissions Settings for <selected item> dialog box, click **OK**.
- 9) In the **Select Users/Group** section of the window, select the users or groups, and then select the applicable level of access for the user or group in the **Permissions Settings** section.
 - ▶ **Modify:** Lets the selected users and groups create or update settings. This setting includes the View permission.
 - ▶ **View:** Lets the selected users and groups view the applicable log.Users/Groups with View permission can view the Background Jobs log without having the ability to edit the time zone. Users/Groups with Modify permission can view the Background Jobs log content and edit the time zone.
- 10) To save your selections and return to the **Module Permission Settings** window, click **OK**.
- 11) Click **Apply** to save changes and keep the window open, or click **OK** to save changes and close the window.

Using the Background Jobs and Background Jobs History pages

The **Background Jobs** log has the following toolbar options:

- ▶ **Refresh (↻):** Lets you reload the contents of the page. When the action is complete, the list might change.
- ▶ **Find on Page (🔍):** Lets you find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.
- ▶ By default, the **Time Zone for Recurring Job** field shows the "(Default) <Time Zone Name>." An **Edit** icon (✎) is displayed next to the field if the user has the Modify permission.

The system uses the set time zone to calculate the next start time for time-based jobs.

The **Background Jobs** log displays a sortable list that supplies the following information for each job:

- ▶ **Name:** The name of the job. Examples include: system:collect action emails, alert:Hourly Trigger, and so on.
- ▶ **Status:** The possible values are Running and Waiting.
Refer to the *Unifier Data Reference Guide* for the default time zones and the possible values.
- ▶ **Next Start Time:** The time that the scheduler runs the job. The value seen here will be per User Preferences. Example: If the User preference is set, the format of the next run will be according to this time.
- ▶ **Type:** The possible values are Simple and Recurring. Simple is a type of job that was done once, at a specific time. Recurring is a type of job that is done based on a calendar schedule.

- ▶ **Priority:** The job priority. Only high priority jobs will have this column populated with the value of "High." The values for other jobs will be blank.
- ▶ **Workspace:** Displays the name or number of the shell for the job (listed under the Name column).

At the bottom of the page is the total number of jobs that exist in the system.

The **Background Jobs History** log contains the same **Refresh** and **Find on Page** toolbar options, plus includes a **Search** option (🔍) that lets you filter what is displayed in the log.

The **Background Jobs History** log displays a sortable list that supplies the following information for each job:

- ▶ **Name:** The name of the job. Examples include: BPBulkExcelUpdate_70536_1161_uxueest, DailyCFTrigger, and so on.
- ▶ **Type:** The possible values are Simple and Recurring.
- ▶ **Thread Name:** The name of the thread that executes instructions.
- ▶ **Trigger Time:** The time at which the thread started.
- ▶ **Elapsed Time (ms):** How long the thread took to run the job.
- ▶ **Delay (ms):** How long a delay, if any, occurred during the running of the job.

At the bottom of the page is the total number of jobs that have run in the past.

Using the Background Jobs Statistics page

The **Background Jobs Statistics** log provides the following options:

- ▶ **Start Date:** Lets you specify a specific day and time from which to start showing statistics for the selected chart.
- ▶ **End Date:** Lets you specify a specific day and time from which to stop showing statistics for the selected chart.
- ▶ **Select a Category:** Lets you a specific category to include in the chart, such as ADMIN or BP, or use all categories.
- ▶ **Run:** After you have set the start and end date and time and selected a category, clicking **Run** updates the chart on the page.

After you click Run, the page displays a high-level chart that depicts the number of times jobs were run for the selected category. The chart is followed by a sortable list that supplies the detailed information such as the name of the job and how long the job usually takes to run. You can use this information to identify jobs that take a significant amount of time and subsequently determine whether the job can be modified to run more efficiently.

Event Audit Log

The **Event Audit Log** functional node tracks all action events across the company that are initiated by a click, particularly when a user clicks a hyperlink within the system. All clicks on hyperlinks are tracked from all users, regardless of their roles. The log tracks the following details:

- ▶ **Event Date:** Lists when the event occurred.
- ▶ **Action:** Lists the action taken, or the hyperlink that was clicked.
- ▶ **User Name:** Lists the user that clicked the hyperlink, or initiated the action.
- ▶ **Origin:** Lists the shell that contains the hyperlink or action within the system. If the hyperlink or action occurs at the company level, then the value in this field will be the name of the Company Workspace tab.
- ▶ **Source Name:** Lists the business process that contains the clicked item.
- ▶ **Source Number:** Lists the number of the record that contains the clicked item. If the record was not yet created at the time of the event, the value in this field will be "New Record." This field will be blank if the event occurred in one of the following locations:
 - ▶ Cost Sheet
 - ▶ Funding Sheet
 - ▶ Generic Cost Manager
 - ▶ Configurable Manager Sheet
 - ▶ Planning Manager Sheet
 - ▶ Portfolio Manager Sheet
 - ▶ Company Properties
- ▶ **Field:** The name of the hyperlink picker from where the click was made.
- ▶ **Proxy User:** If the link was clicked by a proxy user, their user name will appear here.
- ▶ **Source Type:** Lists the type of business process that contains the clicked item. The possible values are:
 - ▶ Business Process
 - ▶ User Attributes
 - ▶ Document Manager
 - ▶ Cost Sheet
 - ▶ Funding Sheet
 - ▶ Generic Cost Manager
 - ▶ Configurable Manager
 - ▶ Planning Manager
 - ▶ Portfolio Manager
 - ▶ Company Properties

The toolbar of the Event Audit Log contains the following options:

- ▶ **Refresh:** Allows you to refresh the log.
- ▶ **Print:** Allows you to print the log through the following options:

- ▶ **Print**
- ▶ **Export To CSV**
- ▶ **Export To Excel**
- ▶ **Search:** Allows you to search for log items based on the source type, source name, user name, or event date.
- ▶ **Find on Page:** Allows you to find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.

Event Notifications

The event notifications are meant for the external applications that integrate with Unifier. When data changes (based on certain triggers), the event notifications (notification records) are generated that can be used by the external applications to pull data from Unifier.

The **Event Notifications** node has been set up by Oracle. The event notifications have already been incorporated within the design of the business processes (BPs) forms.

To access the **Event Notifications** functional node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Integrations > Event Notifications**.

The **Event Notifications** log displays events that happen within the Workflow or Non-workflow BPs.

When a BP record reaches a status that is meant to generate event notifications, an entry gets listed in the **Event Notifications** log. This applies to both Workflow and Non-workflow BPs.

The **Event Notifications** log has the following toolbar options:

▶ **View**

This drop-down list lets you select the system-defined views that are available to all users that have access to view the **Event Notifications** log. It also lets you create and manage log views. The options are:

▪ **All Notifications**

This is the default view for the log. By default, all rows in this log (sorted by Event Date and in descending order) are visible to the users.

▪ **Group by Object Name**

This means grouping the rows in the grid by the "Object Name" parameter. The user has the ability to create a view and manage views. Any view created by any user who has permissions to this log will be available to all other users who have permissions to this log. Similarly, any view edited or deleted by one user will be edited or deleted for all other users using this 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 change the order of views, show or hide views, and delete the custom views.

▶ **Edit View**

Lets you select which columns to display or hide, apply filters, group and sort by available fields, and save custom views.

▶ **Refresh**

To update the information displayed on the screen.

▶ **Print**

To print the information displayed on the screen. Your options are:

- **Print**
- **Export To CSV**
- **Export To Excel**
- ▶ **Search**
To open a screen and search for a record by applying value operators in columns.
- ▶ **Find on Page**
To find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.

The **Event Notifications** log has the following columns:

Column Name	Description	Applies to WF BPs	Applies to Non-WF BPs
Shell Number	Populates with the project/shell number where the event was triggered.	Yes	Yes
Shell Name	Populates with the name of the project/shell where the event was triggered	Yes	Yes
Object Type	Populated as "Business Process"	Yes	Yes
Object Sub-Type	When the Object Type = Business Process, the Object Sub-Type is populated as Workflow or Non-workflow, based on the type of the BP.	No	Yes
Object Name	Populated with the name of the Business Process in which the event was triggered	Yes	Yes
Record Number	Populated with the "record_no" value of the BP record that triggered the event	Yes	Yes
Event Date	Populates with the	Yes	Yes

Column Name	Description	Applies to WF BPs	Applies to Non-WF BPs
	date and time, when the event was triggered. The content of this column is in descending order, which is the default sort format.		
WF Step From	Populates when the event notification is for a <i>WF BP</i> . This column is populated with the name of the <i>starting step</i> of the record that have triggered the notification generation.	No	Yes
WF Step To	Populates when the event notification is for a <i>Non-WF BP</i> . This column is populated with the name of the <i>final step</i> of the record that have triggered the notification generation.	No	Yes
WF Action Name	Populates with the WF action name that was taken for the BP record that triggered the notification. Note: The same BP could go through several events which trigger the notification generation. Each such event inserts a corresponding row in this log.	No	Yes
Old Status	The original status	Yes	Yes

Column Name	Description	Applies to WF BPs	Applies to Non-WF BPs
	of the BP record (before the event was triggered)		
New Status	The final status of the BP record that satisfies the event trigger condition	Yes	Yes

The **Event Notifications** log lists Workflow BPs and Non-Workflow BPs:

Workflow BPs	Non-Workflow BPs
<p>For the Workflow BPs, the grid displays a record of all the workflow actions that are taken within the BP records, and which are set with the Generate event notification option as checked, in uDesigner.</p> <p>A Workflow BP step completion policy does not impact the creation of the notification row.</p> <p>Regardless of the completion policy, if an action (which is set up to generate an event notification) is taken in the Workflow BP record, the notification row is inserted in the log.</p> <p>If there are multiple assignees on a step, the final action on the Workflow BP record, which moves the record to the next step, determines what will be included as an event notification row in the grid, not each action taken by an assignee.</p> <p>If a task is reassigned and the new assignee takes an action that moves the record to the next step, and the record is configured to generate a notification, the system inserts an event notification row in the grid, also.</p>	<p>For the Non-workflow BPs, the notification records are generated when the BP record reaches the status that has been designed to trigger event notification. Upon reaching the status, the system inserts a notification row in the grid.</p> <p>If you click Edit on a Non-workflow BP record and proceed to click Finish Edits with making any changes, but the status change is set to generate notifications per the design, the system inserts a notification row in the grid.</p>

Setting Up Permissions for the Event Notifications

The visibility of **Event Notifications** log is driven by permissions.

To set the permissions:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, click **User Administration > Access Control**.
The **Access Control** window displays.
- 3) In the **Access Control** window, expand **Administration Mode Access** and then expand **Integrations**.
- 4) Click **Event Notifications** to open the **Module Permission Settings** window.
- 5) Set the **View** permission to users and groups as needed.

Under the **Permission Settings for: Event Notifications** block you can select users or groups and either modify (**Modify**) or remove (**Remove**) the existing permission.

To add a new user and add permissions, click **Add** to open the **Permission/Access Control** window. In the **Permissions Settings for: Event Notifications Select Users/Groups** block, click **Add Users/Groups** to add users or groups. In the **Permission Settings** block, click **View** to select and click **OK** to grant this permission to the users or groups that you have selected.

When finished, click **Apply** and then click **OK** to close the window. To discard your changes or close the window click **Cancel**.

Users or groups with the **View** permission have the ability to:

- a. See the **Event Notifications** node in the left Navigator.
- b. Take actions using available options in the log toolbar.
- c. View all notifications records within the log.

uDesigner Overview

uDesigner is a functional module of Unifier and is enabled automatically when the system is installed.

The uDesigner module is used to create:

- ▶ Business Process (BP)
- ▶ Managers (Asset, Cost, Document, Planning, Portfolio, Space, Shell, and so on)
- ▶ Configurable Modules
- ▶ Attribute Forms (Users, Shells, Document Manager, Cost)

Collapse by Default Option in Block Properties

In the Block Properties window of both a BP form and a manager attribute form, there is a new check box called **Collapse by Default**. If the check box is checked, the block is collapsed by default. If the check box is deselected, the block is expanded by default.

With the **Collapse by Default** option, you can avoid scrolling through irrelevant information.

Under the **Collapse by Default** check box, the following note is displayed: "The block will be collapsed in User mode, only if the block has a label and the Show Border and Show Label options are checked. This option is applicable only for Standard View of forms."

Collapse by Default is applicable to the following forms: Action form, View form, Detail form, and various attribute forms.

Additional uDesigner Options

You can use the uDesigner module to:

- ▶ Create a design in the **Development** environment.
- ▶ Configure, set up, and test your designs in both the **Development** environment and **Test** environment.

After this point you can import your designs to the Production environment by way of **Configuration Package**.

Oracle recommends that you:

- ▶ Create your Configuration Package in the **Development** environment and import your Configuration Package to the **Test** environment for additional testing.
- ▶ Import your Configuration Package from the **Development** environment onto the **Production** environment for use.

You can select the Unifier environment in the **Unifier Configurator**.

- ▶ The **Development** environment is a server deployed by selecting the server type as "Development" in the **Unifier Configurator**.
- ▶ The **Test** environment is a server deployed by selecting the server type as "Test" in the **Unifier Configurator**.

- ▶ The **Production** environment is a server deployed by selecting the server type as "Production" in the **Unifier Configurator**.

The **Development/Test** environment is an environment that replicates the Unifier **Production** environment.

An object (for example a BP) can be deployed multiple times only in the **Development** environment.

Note: The uDesigner functionalities are available in both the **Development** and the **Test** environments. The uDesigner functionalities are not available in the **Production** environment. The design changes made in the **Test** environment *can* be sent to the **Development** environment where you can prepare and publish the configuration package. The design changes made in the **Test** environment *cannot* be sent to the **Production** environment.

In the **Test** environment, you *can* import an unpublished Configuration Package.

In the **Test** environment, you *cannot* publish your Configuration Package.

You can only publish your Configuration Package from the **Development** environment.

The Test server is equipped with usable uDesigner and Data Structure Setup nodes so users can create or modify BP designs and include them in configuration packages and export them to another Test or Development server.

When deploying your designs, it is important to note the version numbers:

- ▶ A *deployed* version indicates that the design has been tested in the **Development/Test** environment.
- ▶ A *published* version indicates that the design has been included in a published configuration package intended for import in a **Production** environment.

User Administration

This section covers adding, managing, related permission settings, and related access control for:

- ▶ **Company Users** (Sponsor Company and Partner Company users)
- ▶ **Partner Users** (Partner users)
- ▶ **Groups** (user groups)
- ▶ **Task Reassignment** (access control)
- ▶ **Integration Users**

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Owner Company or Sponsor Company

The entity that engages in business and has the complete control (or ownership) of Unifier with all its rights and privileges.

Partner Company or Member Company

The consultants, contractors, and vendors that have been invited to participate in a project by the Owner Company/Sponsor Company. The system lets you add a Partner Company/Member Company to enable project users to collaborate on (and coordinate) the execution of a project.

Note: A **Member Company** is a **Partner Company**. When a **Partner Company** is added to a project/shell, the **Partner Company** becomes a **Member Company**. That is to state: When a **Partner Company** participates in a project/shell, the **Partner Company** becomes a **Member Company** in that project/shell, and the **Partner Company** users that are added to the project/shell become the **Member Company** users.

To access the **User Administration** node, go to the **Company Workspace** tab > **Admin** mode > **User Administration**. The following explains each sub-node in detail.

Generally, the values of the user attributes are specified under the **General** tab of the members in **Company Users** or **Partner Users**:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** node.
- 3) Click the **Company Users** or **Partner Users** sub-node to open the log.
- 4) Select a member from the log and click **Open**. The **Edit User** window for the user that you selected opens, and the **General** tab is displayed by default showing the values of the user attributes.

The same values of the user attributes that are specified under the **General** tab of the members in **Company Users** or **Partner Users** are also displayed (read-only) in the shells, within the **Users** or **Groups** sub-nodes:

- 1) Go to the project/shell tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** node.
- 3) Click the **Users** or **Groups** sub-node to open the log.
- 4) Select a member from the log and click **Open**. The **Edit Projects User** window for the user that you selected opens, and the **General** tab is displayed (read-only) by default showing the values of the user attributes.

Note: You can only edit the user attribute fields that are relevant to each project/shell.

Within a shell, on the **General** tab (of the members in **Users** or **Groups**) you can click the **Copy Attributes from Company Workspace** option to fetch all the company-level user attribute values from the company (**Company Workspace** tab) and populate the user attributes values the **General** tab.

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** node.
- 3) Click the **Company Users** or **Partner Users** sub-node to open the log.
- 4) Select a member from the log and click **Open**.

- 5) In the **Edit User** window for the user that you selected (**General** tab) enter the user attributes.
- 6) Click **Apply** to save your changes and then click **OK** to close the window.
- 7) Go to your **<shell>** tab and switch to **Admin** mode.
- 8) In the left Navigator, expand the **User Administration** node.
- 9) Click the **Users** or **Groups** sub-node to open the log.
- 10) Select the member from the log and click **Open**.
- 11) In the **Edit User** window for the user that you selected (**General** tab) click **Copy Attributes from Company Workspace**.
- 12) Follow the prompts so that the system can fetch all the company-level user attribute values from the company (**Company Workspace** tab) and populate the user attributes values the **General** tab.

Note: If a user attribute value changes at the company-level, the system will not update the corresponding value at the project/shell level.

When finished, click **Apply** to save your changes and then click **OK** to close the window. Click **Cancel** to discard your changes and close the window.

Assigning Application Access (Cloud Only)

To assign application access to *Unifier*:

- 1) Log in to Primavera Administration and do the following:
 - a. Add a user.
 - b. Assign application access for that user to **Primavera Unifier Production**.

Note: For details on using Primavera Administration, see the *Primavera Administration Identity Management Guide*.

- 2) Log in to Unifier as a company administrator.
- 3) Assign the users permissions that are specific to module access, functions, and tasks that they will use.
- 4) Repeat these steps for each user account that requires access to Unifier.

Editing User Permissions at Company, Shell, and Project Levels

The following user permission settings apply to *editing* user permissions at company level and project/shell level:

- ▶ When a user has the **Create** permission, all the fields on the **User Properties** window are editable. The **Apply** and **OK** options are displayed.

A user with **Create** permission at the company level will be able to create users and modify all the *properties* of the users, including the status and permissions.

- ▶ When a user has **Modify Status** permission only, the **Status** option is enabled. The **Apply** and **OK** options are displayed and enabled. All the other fields are not editable. A user who only has the **Modify Status** permission will be able to modify the *status* of users both from the **User Properties** window and the log.

Note: The ability to update the status from the log is not available at the shell, or project, level.

- ▶ When a user has the **Modify Properties** permission only, the **Status** option is not enabled (disabled). In this case, the user needs the **Modify Status** permission in order to be able to edit the Status field. The **Apply** and **OK** options are displayed and enabled. All the other fields are editable.

A user who has the **Modify Properties** permission without the **Modify Status** permission can modify the properties of the user. A user who has the **Modify Properties** permission without the **Modify Status** permission cannot modify the status of the users.

- ▶ When a user does *not* have the option to view the Audit Log because **Hide Audit Log** is *enabled*, it prevents the user from viewing the Audit Log for a project/shell, which ensures that the user is not aware of what changes are made to the shell, when they are made, and by whom.

You can grant specific permissions to the project/shell team members to allow them to conduct specific user administration setup tasks (such as maintenance tasks) according to the permissions that you have granted to them. You can set up these permissions in the Permission Settings for Users under the **User Administration** category in **Access Control (Admin mode)**.

The Permissions tab for the Users (under the User Administration) are:

- ▶ Add Users
- ▶ Modify Status
- ▶ Modify Permissions
- ▶ Modify Properties
- ▶ View

You can select any of the above permission options independently. When applicable, the second-level options will be selected automatically, when the first-level option is selected. This does not work in the opposite order. The same applies to the User/Groups.

Example

If you select "Add Users" (a first-level option), then the "View" (a second-level option) will be selected automatically, but if you select "View" only, then no other options will be selected automatically.

Note: The company-level (company workspace) permissions are not affected.

While you are adding or modifying a user's permissions in a project/shell, the Permissions tab displays the user's permissions in read-only mode, if the user does not have the permission to modify permissions (Modify Permissions), despite having other permissions.

Importing User Attribute Form

For company user administration, the system displays a default log, **General** tab (used when creating a user with the Company or Partner detail form), and User/Group picker, unless you design and import your own user administration attribute form.

You can add additional data elements to the User Attribute form, configure Company User and Partner User logs, add additional attributes to the View User Profile form, and a User/Group picker. The additional data elements appear as user properties on the General tab for Company and Partner users, as well as on the user View Profile form. For example, the additional user properties can include a user's department and location, or other details.

For more information, see **User Administration** in the *Unifier uDesigner User Guide*.

Note: The new attribute will be available only for **Company Users** log and **Partner Users** log and will not be available as part of custom attributes in other module designs.

All designs, including user attribute forms, are designed in uDesigner and deployed to Unifier. For more information, see **Importing Configuration Packages** in the *Unifier Modules Setup Administration Guide*.

Adding and Managing Company Users

Company Administrators can add new users to the sponsor company. Each new user creates a new user record. These are known as *company users*. Company users can be entered manually one at a time, or multiple user records can be imported into the system from a CSV file.

Note: For information about the columns, such as time zone, user type, and language, see the *Unifier Integration Interface Guide*.

To ensure compliance with company standards and restrict access, Oracle recommends that the responsibility for user administration (at the company level) be delegated to one person, or a small group of people.

To access the Users log:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
The Users log lists the users defined for your organization.
- 3) To open an existing record, select a user in the list and click **Open**.

Note: If a **User Attribute** form has been imported, the columns that appear in the Users log can vary. If designed in uDesigner, the log can include navigation in the left pane. This navigation lets you filter the display of listed users listed. If you decide that you want a standard log to display, you can remove the navigation from the log in uDesigner. Also, the search criteria in the Find window and sort order can vary depending on what was added to the User log design in the **User Attribute** form.

User Type

The **User Type** column in the Users log identifies the type of user per following:

- ▶ **SYS User Type/Standard:** The SYS User Type/Standard User, which refers to both Company and Partner users, can have access to all modules, except Earned Value Management (EVM). If the Earned Value Management component is selected for a Standard User, the component will be available to the Standard User. The licensing purchased by your organization determines whether EVM is included.

Note: For information specific to the Earned Value Management module, see the *Unifier Earned Value Management User Guide*.

- ▶ **SYS User Type/Portal:** The SYS User Type/Portal User can only have access to the self-service portal login.

The Users log contains multiple *menu* options that you can use to perform steps such as creating new users manually or through import or updating types. The *toolbar* options provide access to some of the same features as well as providing quick access to changing the Status of a user account.

The **Update User Type (To Portal and To Standard)** option, collectively, work as a bulk action on one or more selected user rows by enabling you to update the type of user. For example, you can select one row, or multiple rows, click **Update User Type**, and change the user type to portal or standard.

If the user type attribute is not mentioned when creating the user, the user type for that user will be set to Standard by default.

When you are creating a user, the User Type drop-down list is defaulted to Standard user, but you can change the User type to Portal.

The Attribute "Earned Value Management" displayed is unchecked by default. If the user selects this option, the user will be granted access to the Earned Value Management module. This check box will be disabled for Portal users. The licensing purchased by your organization determines whether this check box is visible.

Note: The check box for Earned Value Management users will be seen only when the Earned Value Management module is loaded.

In the **License Manager**, the Company user and Partner user are considered Standard users in terms of license count and combined count for License Terms and Current Usage. (For more information on using the License Manager, see **Working with the License Manager** (on page 152).) The **License Manager** page will generate and update a gauge chart for the following license types, which varies depending on the licensing purchased by your organization:

- ▶ Standard Users
- ▶ Portal Users
- ▶ Collaborator Users
- ▶ Earned Value Management Users

The counts for Portal users and Earned Value Management (EVM) users depend on:

- ▶ Whether a particular Company user is marked as a Portal user, and
- ▶ The Earned Value Management user in User Administration.

If there are more active users with accounts than the product is licensed for, the calculations in the **Active Named Users** fields might be higher in the **Current Usage** sections versus the **License Terms** sections. The excess or surplus (overage) is calculated in the same way as the Standard users.

The Site Administrator can edit the license terms and view the audit log for the users by clicking the Settings icon. When editing the user count, the Site Administrator will have to enter a combined number for active named users. Depending on the licensing purchased by your organization, the Site Administrator will also be able to edit the Portal users and EVM users count by using the General and Notifications tabs on the License Terms window.

The **User Type** column will be seen by default in the standard user data picker. For the custom user data picker, if the user has added the column, the user will be seen in **User Type** column.

In addition to the standard user (a user with access to all functionalities) and the portal user (a user with access to limited functionalities), the system supports the Collaborator User.

Notes:

- The Collaborator User is a Partner User. Any user can be declared as a Collaborator User, but a Collaborator User will have limited access to Unifier functionality. The Collaborator User status must be granted to external users such as vendors.
 - A Collaborator User will also have access to **Mailbox** node (module) and its sub-nodes.
-

License terms for a company (customer) can only be changed by the **Site Administrator** (for the cloud customers this will be the **Oracle Cloud Administrator**). As a result, to allow a **Company Administrator** to add a Collaborator User, the **Site Administrator** must first add licenses for the Collaborator User. See **Collaborator User** (on page 104) for more details.

Add a New Company User

This section describes how to manually add a new user record to your company. For information about importing multiple user records from a CSV file, see *Import company users (add users or update users)*.

If you have created a **User Preference template** (in **Standards & Libraries > User Preference Templates**), the active template will automatically be used to generate the new user's user preferences. If there is no active template present, the system default settings will be used for the user preferences.

To add a company user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Click **New** from the toolbar to open the Edit User window and complete the form.
- 4) In the Edit User window, complete the fields of the **General** tab as discussed in the following table.
- 5) Click the **Security** tab. You must also add a login user name before saving the record. See *Manage User Login Information (Security Tab)* (on page 111) for details.
- 6) At this point, you can activate the user, save the record, or complete the rest of the tabs:
 - ▶ **Groups:** You can add the user to existing groups. The default groups are Company Administrators, Project Administrators, Shell Administrators, and Support. The user automatically inherits group permissions. See *Manage a user's group membership (Groups tab)* for details.
 - ▶ **Permissions:** You can configure individual permission settings for the user in this tab. See *Edit User Permissions (Permissions Tab)* (on page 112) for details. Alternatively, you can assign the user to a group (the user will automatically inherit group permissions), or assign permission through Access Control.
 - ▶ **Projects/Shells:** This tab lists the projects/shells to which the user has been added and is view-only. See *View User's Project and Shell Membership (Project/Shell Tabs)*.
 - ▶ **Proxy:** You can add or view the user's proxy users in this tab. See *Designate a Proxy User (Proxy Tab)* (on page 113).
- 7) Click **Apply** to save changes, or **OK** to save and exit the window.

In this field:	Do this:
First Name, Last Name	Enter the first and last name of the user. These are required fields.
Title	Enter an optional company title for the user.
Email	Enter the user's email address, which will be used to send system notifications to the user, and will display in the user's contact information. This is a required field.
Work Phone	Enter the user's work telephone number.

In this field:	Do this:
Mobile Phone	Enter the user's mobile telephone number.
Home Phone	Enter the user's home telephone number.
Pager	Enter the user's page number.
Fax	Enter the user's fax number.
Address	Click the Select button to add a company address to the user profile (From Edit Company, Address Tab)
Time Zone	Choose the default time zone for the user. This can be changed in the User Preferences window.
Language	Select a language from the drop-down list. Note: The languages listed are the active languages selected in the Configuration - Internationalization log, by the administrator.
Date Format	This setting controls the display of dates on reports, business process forms, and so on. This can be changed in the User Preferences window.
User Type	Select Standard or Portal . The Standard User has access to all modules, except Earned Value Management (EVM). The licensing purchased by your organization determines whether EVM is included. (If the Earned Value Management component is selected for a Standard User, the Earned Value Management is available to the Standard User.) The Portal User only has access to the self-service portal login.
Earned Value Management	This option is unchecked (cleared) by default. If you select this option, the user will be granted access to the Earned Value Management module. The licensing purchased by your organization determines whether EVM is included. This check box will be disabled for the Portal type of users.

In this field:	Do this:
Status	<p>New users are Active by default. Status can be Active, Inactive or On-hold. Neither Inactive nor On-Hold users can sign in:</p> <ul style="list-style-type: none"> ▶ Active: User is listed in Project or Shell Directory, in User/Group Picker, User can sign in and participate in project/shell. ▶ Inactive: User's name does not appear anywhere for selection on any project-or shell-related functions or User Picker. User cannot sign in but they can be given permissions and added to groups. ▶ On-hold: User can be added to a project/shell and assigned as a participant in a business process workflow but cannot sign in. Normally used to pre-assign users to a new project/shell before activating it. <p>Active and On Hold users will be counted against your user license terms; Inactive users will not.</p>
Disable Mobile Access	<p>This option is unchecked (cleared) by default. If you want to prevent the user from accessing the Unifier Mobile application, select this option.</p>

Collaborator User

The Company Administrator can:

- ▶ Create a user of the type "collaborator" only in the Partner Users functional node (**Company Workspace** tab > **Admin** mode > **User Administration** grouping node).
- ▶ Bulk update the user type to "Collaborator."

Note: All license constraints will be in place.

If you make a user a Contractor by assigning the Contractor User Type in Primavera Administration, the user will consume a Collaborator license in the system. Any other user classification (Employee, Intern, Temp, External, Service, Generic) will consume a Standard license.

Attention Unifier Cloud Administrator

When you are provisioning users in the Cloud Administration tool:

- a) While setting up users of Collaborator license type, you must select the user type as “Contractor” in the Cloud admin tool. The user type of “Contractor” is reserved for the "Collaborator" user type of Unifier. You must not use the user type “Contractor” for any other user type that may count towards Standard license.
- b) If you want to create users with Standard license type, then you can choose the user type to be any of the other values such as Generic, Intern, and so forth.

Impact on the Audit Log

Changes made to the Collaborator User license terms will also get captured in the **Audit Log** tab.

A Collaborator User license type can be manually added as a Partner User (Company Workspace > User Administration node), imported through a CSV file, or added through REST API calls.

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Users**.
- 3) In the **Partner Users** section of the log, select the company that you want to add the Collaborator User to.
- 4) From the toolbar, select **New > Manual**.
- 5) In the **Edit User** window, **General** tab, enter the user information, click the **User Type** drop-down list, and select **Collaborator**.
- 6) To save your changes, click **OK**.

The **Update User Type** toolbar option lets you use the submenu option of **To Collaborator**. The same option is available in the **Edit** Menu.

The following table outlines the behavior of various options:

Selection	Update License Type	Usage
When one or more users are selected	Update to Standard	For all the selected users, the user type will be updated to Standard.
When one or more users are selected	Update to Collaborator	For selected users, the user type if not Collaborator will be changed to Collaborator.
When one or more Standard partner users are selected	Update to Portal	For the selected Standard Partner users, the user type will be changed from Standard to Portal.
When one or more Standard partner users are	Update to Collaborator	For the selected Standard Partner users, the user type

Selection	Update License Type	Usage
selected		will be changed from Standard to Collaborator.
When one or more Portal users are selected	Update to Portal	For selected users, the user type if not Portal will be changed to Portal.
When a mix of Standard, Portal, and Collaborator users are selected	Update to Collaborator	For selected users, the type if not Collaborator will be changed to the Collaborator.
When a mix of Standard and Portal users are selected	Update to Portal	For selected users, the type if not Portal will be changed to Portal.

You can add Collaborator User of the new license type in User Administration for Partner Users through CSV.

For the identity domain or Primavera Administration Application, to create a Collaborator User a new attribute for the user type must be created, when creating a user.

Navigational nodes seen (**Home**):

- ▶ **Home**
- ▶ **Tasks**
- ▶ **E-Signatures**
- ▶ **Notifications**
- ▶ **Inbox**
- ▶ **Drafts**
- ▶ **Sent items**

Note: The Master log is not displayed.

Navigational nodes seen (**Shell**):

- ▶ **Tasks**
- ▶ **E-Signatures**
- ▶ **Drafts**
- ▶ **Mailbox**
 - ▶ **Drafts**
 - ▶ **Inbox**
 - ▶ **Notifications**
 - ▶ **Sent Items**
- ▶ **Delete Items**
- ▶ **Document Manager**, with all the sub-nodes (based on logged-in user permissions).

- ▶ **Logs**, with all the business processes (that the logged-in user has navigational-level access to).

Because Project Mailbox is not available to the Collaborator User, the same option is also not available under "Linked Mail" of a BP. If there are any existing emails from the Project Mailbox in the linked mail of the particular BP, the emails would still be visible and accessible.

The Collaborator User will not have access to any non-BP type object in the left Navigator. If there are references on the BP forms, the Collaborator User will be able to access them. Also, any records that can be opened by way of a hyperlink in a non-BP type picker will be accessible to user.

Note: A user who does not have permissions for any shells can click any shell picker on the BP forms and add or reference a shell in a BP; the system does not restrict this based on the permissions. The same rule applies to a Collaborator User.

Here is a list of some of the pickers that are non-BP type:

- ▶ Space Manager
- ▶ Planning Items
- ▶ Code or Record Based Managers
- ▶ Shell Manager

A Collaborator User can have other Standard users who can act as proxies and can act as a proxy for other users. A Collaborator User can view this list in the **My Proxy** tab. All sub-options seen in the **Preferences** window will be the same as other Standard users, including the Email Subscription options.

Note: The system does not prevent the Company Administrator from setting Collaborator user types as Proxy users; however, at runtime these types of users will not see the option to proxy on behalf of someone else.

The User Type "Collaborator User" is not available in the **Bulk Edit** log, and the license count will not be checked when updates are made through bulk edit.

A Collaborator User has access to the following options in the top pane:

- ▶ **Announcements**
- ▶ **Bookmarks**
- ▶ **Help**
- ▶ **Recent Locations**
- ▶ **Key Locations**

Delete a User

Company Administrators can delete an existing user from the shell template. This section describes how to manually delete a user from a shell.

Note: You can delete a user from a specific shell template but not from other Projects/Shells that have been created using the template.

To delete an existing company user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Templates > Shells > [shell type] > [shell templates] > User Administration > Users**.
- 3) Select a user from the log.
- 4) Click **Delete**.
- 5) When the prompt appears that asks you to confirm deletion, click **Yes** to remove the membership from the shell template.

Import Company Users (Add Users or Update Users)

If you have many users to add or update, you may want to import the records, so you do not have to manually open and update each user record. You can import multiple users with a CSV file by doing the following:

- ▶ Export a copy of the CSV file structure.
- ▶ Populate the CSV file with user information.
- ▶ Import the CSV file into the system.

To export a copy of the CSV file structure:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Click the **File** menu and choose **Export > Export Structure**.

Depending on your browser, the CSV file will be automatically downloaded or you will be prompted to download it manually.

To export existing users for update:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Choose **File > Export > All**, or select users in the log and choose **File > Export > Selection**.

Depending on your browser, the CSV file will be automatically downloaded or you will be prompted to download it manually.

To populate the CSV file with user information:

- 1) Open Microsoft Excel (or another program compatible with CSV format) and open the CSV file you just saved.

- 2) Enter or modify user information in the spreadsheet. The fields are discussed in the following table. Ensure that you review the notes after the table.
- 3) Save in CSV format.

In this column:	Do this:
First Name*	Enter user's first name.
Last Name*	Enter user's last name.
Title	Enter user's company title.
Email*	Enter user's email address.
Work Phone	Enter user's work phone number.
Mobile Phone	Enter user's cell phone number.
Home Phone	Enter user's home phone number.
Pager	Enter user's pager number.
Fax	Enter user's fax number.
Login Username*	Enter a unique username that the user will use to log in the system.
Password	Enter a password that will allow the user to log in for the first time. The user can change the password after signing in.
Time Zone*	Enter the code for the Time Zone (refer to the <i>Unifier Data Reference Guide</i> for the list of codes). This is a required field, even if you are entering a User Preferences Template Name (if the time zone specified in the template is different from this cell, the template selection will take precedence).
Date Format*	Enter the code for the Date Format (refer to the <i>Unifier Data Reference Guide</i> for the list of codes). This is a required field, even if you are entering a User Preferences Template Name (if the date format specified in the template is different from this cell, the template selection will take precedence).
Address	Enter the code for the company address to use with this user. (Refer to the <i>Unifier Data Reference Guide</i> for the list of codes)
Template Name	If you have created User Preferences

In this column:	Do this:
	Templates, enter the name of the template to use for this user.
Status*	Enter a status code for this user: Active=1, On-Hold=2, Inactive=0
Disable Mobile Status	To allow a user to access the Unifier Mobile application, enter 0 in this field or leave it blank. (If no value is specified, the system sets the value to 0 by default.) If you want to prevent a user from accessing Unifier Mobile, enter 1.

* = mandatory column

Note the following:

- ▶ Do not delete or change the order of the columns; this will make the file invalid.
- ▶ Valid information must be entered into columns corresponding to required fields. An asterisk in the column header indicates required fields. (Expand the columns to see the asterisks if necessary.)
- ▶ For non-text-entry fields (Time Zone, Date Format, Address), enter the corresponding code. Valid codes are found in the *Unifier Data Reference Guide*.
- ▶ Non-required fields (column heading does not have an asterisk) are optional. You may enter information or leave these fields blank.
- ▶ The length of "Username" cannot exceed 64 characters and cannot include the following:
 - ▶ Space
 - ▶ Non-printable characters

To import the CSV file into the system:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Choose **New > Import** to import the completed CSV file.
- 4) Click **Browse** and navigate to where you saved the file.
- 5) Click **OK** to import. New users are created and existing users are updated.
- 6) Open the User record and set up the Groups, Permissions, Projects/Shells, and Proxy tabs as needed.

If any rows contain errors, no rows are imported. Error messages are listed in the CSV file.

To fix import errors:

If you receive the Confirmation message:

Import could not be completed. Do you want to download a file with errors shown?

- 1) Click **Yes** to open the CSV file.
- 2) Fix the rows that contain errors.

- 3) Re-import the file.

Export User Records

You can export a CSV file with current user information.

To export a CSV file containing all user records:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Click the **File** menu and choose **Export > All**.

Depending on your browser, the CSV file will be automatically downloaded or you will be prompted to download it manually.

To export a CSV file containing selected user records:

- 1) In the Company Users log, select one or more users to export (press the Ctrl or Shift keys to select multiple users).
- 2) Click the **File** menu and choose **Export > Selection**.

Depending on your browser, the CSV file will be automatically downloaded or you will be prompted to download it manually.

Manage User Login Information (Security Tab)

Before you activate a new user, you must enter a Login Username. To allow the user to sign in to the system, you must also add an initial password. You can also change the user's password here, for example if the user has forgotten their password. If you change a user's password, they will automatically be logged out and will need to log in again using their new password.

Users can change their password later in the User Preferences window.

To add or manage user login information:

- 1) In the User Administration log, select a user and click **Open**. The Edit User window opens.
- 2) Click the **Security** tab.
- 3) Complete the fields as shown in the following table.
- 4) Click **Apply** to save changes, or **OK** to save and exit.

In this field:	Do this:
Login Username	Enter the Users Sign In ID (required). This value can be changed by the System or Company Administrator but not by the User.
Password	Enter the value the user will use as their Sign In ID. Passwords must match the company Security/Password policy, if one is in force.
Confirm Password	Confirm password by re-entering.

View Password Policy	Click this link to verify the password is conforming to your company's Security/Password policy (Edit Company window, Security tab). A password that does not comply will generate a warning message.
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The **Security** tab is not available if Unifier is integrated with SSO (LDAP, OAM).

Note: To be able to keep the Admin options when you log in to LDAP, you must create a new Admin (for LDAP log in), and add the new Admin to the company user/group. Only one company Admin can be added, with all pertinent privileges.

Manage a User's Group Membership (Groups Tab)

You can manage a user's group membership from the Groups tab of the Edit User window. This tab displays all the groups the user is a member of, and allows you to quickly add or remove groups. The default groups are Company Administrators, Project Administrators, Shell Administrators, and Support. For information about adding or managing groups, see **Adding and Managing Groups** (on page 127).

Note: If you are using OIM to add users to your company, you will still have to use these instructions to add users to groups.

To add a user to a group:

- 1) In the User Administration log, select a user and click **Open**. The Edit User window opens.
- 2) Select the **Groups** tab.
- 3) Click **Add**. The User/Group Picker opens.
- 4) Select the **Group** and click **Add**. The group will appear in the Selected Groups window. Click **OK** to save.

To remove a user from a group:

On the **Groups** tab, select a group and click **Remove**.

Edit User Permissions (Permissions Tab)

This procedure lets you grant or remove specific user permissions. This is useful if a user needs special permissions that are not likely to be repeated with other users, or is not part of a group. You can also specify permissions for groups (if you add the user to the group, the user will automatically inherit all group permissions) or control permissions through Access Control.

To edit a user's permission settings:

- 1) In the User Administration log, select a user and click **Open**. The Edit User window opens.
- 2) Select the **Permissions** tab.
- 3) Click a plus sign to expand the choices. Scroll up or down as needed.
- 4) Select the Permission module in which to grant permissions. Choose the Permission level in the bottom window.
- 5) Click **OK** to save.

To copy permissions from a template:

- 1) In the Permissions tab, click the **Copy Permissions** button.
- 2) Select the template and click **OK**. All permissions settings in the user record will be overwritten and replaced with the permission settings from the template.

View User's Project and Shell Membership (Project/Shell Tabs)

Users can be added to projects/shells, which gives them access to participate in them. You can view a user's project membership in the Projects/Shells tab.

To view a user's project/shell membership:

- 1) In the User Administration log (**User Administration > Company Users**), select a user and click **Open**.
The Edit User window opens.
- 2) Select the **Projects/Shells** tab. This tab displays the list of projects/shells of which the user is a member.

Users cannot be added or removed from projects/shells here.

Designate a Proxy User (Proxy Tab)

A Site/Company Administrator can designate a user to be a proxy user for another user.

- ▶ Proxy users can be granted permission to access another user's account and perform various functions on that person's behalf if that person is unavailable, such as on vacation.
- ▶ Proxy users who are active (Status: **Active**) receive email notification of tasks to perform as proxy. This applies during the specified time period, using the Start Date/Time and End Date/Time.
- ▶ Proxy users have access to all the records, settings, and functions of the original user. A proxy user signed in to another's account cannot change Preference settings. The Audit logs reflect the actions taken by a proxy user as "on behalf of" the original user.

Note: If the specified proxy user has Send notifications in a single daily digest selected on the Options tab of their User Preferences, it will impact when they receive notification of the task they must perform as proxy. Ensure that the Send notifications in a single daily digest check box is deselected for the proxy user if that user must receive the task notifications immediately.

To designate a proxy user:

Note: The following applies to Company Users, Partner Users, and Groups.

- 1) Launch the system > **Company Workspace** tab > **Admin** mode > **User Administration** > **Company Users**.
- 2) Select a user from the Users log and click open to open the **Edit User** window
- 3) Click **Proxy** tab.
- 4) Set the options per following descriptions.

Do not allow Proxies

The Site/Company Administrators, Company users, and Partner users) are permitted to select the **Do not allow Proxies** option.

Note: This option is read-only in the user's User Preferences window.

Users can add proxy users in their User Preferences window only if the Site/Company Administrator has not checked the **Do not allow Proxies** option in the Proxy tab of Edit User window.

Users who can act as my Proxy

This section of the Proxy tab lists the users who can act as proxy and lets you add, adjust the settings, remove proxies, and view the proxy login history.

Note: You can select/designate more than one proxy user.

Add

The Company Administrator can assign other users to act as proxies to your account, if you are unable to do so.

To add a proxy:

- 1) Click **Add** to open the **Proxy User Settings** window.
- 2) Click **Select** to open the **Users/Group Picker** window.
- 3) Select users, click **Add**, and then click **OK** to go back to the **Proxy User Settings** window.
- 4) Enter the Start Date/Time and End Date/Time values.
- 5) Select the **Status (Active)** and click **OK**.

If enabled by the Administrator, Partner Users can add Owner Company Users as proxy users.

- 1) Launch the system > **Company Workspace** tab > **Admin** mode > **User Administration** > **Partner Users**.
- 2) Select a user from the Users log and click open to open the **Edit User** window
- 3) Click **Proxy** tab.
- 4) Click **Add** to open the **Proxy User Settings** window.
- 5) Click **Select** to open the **Users/Group Picker** window.
- 6) Select the desired company from the **List Names from** dropdown list.

- 7) Select users, click **Add**, and then click **OK** to go back to the **Proxy User Settings** window.
- 8) Enter the Start Date/Time and End Date/Time values.
- 9) Select the **Status (Active)** and click **OK**.

Settings

Use this option to select an existing proxy and change the user settings of the proxy, such as start and end date/time. To change the user settings of the proxy, click **Settings** and follow the prompts.

The system sets the values in the time-related fields based on the user's preferred data and time formats.

Note: If you do not specify a start or end date, the proxy user can access your account immediately and their access privileges will not expire.

You can select **Active** to activate proxy's access. To disable proxy's access, select **Inactive**.

Remove

You can use this option to remove a selected proxy. To remove a user as a proxy, select the proxy from the list and click **Remove**.

Proxy Login History

Use this option to view the following information about the proxies:

- ▶ Name
- ▶ Login Date
- ▶ Logout Date

The last login information appears on top.

Note: The **Sign Out** link at the upper-right portion of the Unifier window allows a proxy's session to end.

Send Email to a Company User

This is available for company users only, and is not available for partner company users.

To send an email to a company user:

- 1) Navigate to the Company Users log.
- 2) Select one or more names in the log, then click **Send email** on the button bar. Your email client window opens, where you can then send an email to the user(s) you selected.

Unlock a Locked User Account

A user account can be locked if the user exceeds the maximum sign in attempts, or if the user has not signed in after a specified number of days. The users who are locked out of the system will receive a message stating the condition that needs to be corrected.

The password criteria are configured on the **Security** tab of the **Edit Company** window.

To unlock a locked user account:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Click **User Administration > Company Users** or **User Administration > Partner Users** in the left Navigator.
- 3) Select the user from the log.
- 4) Click **Open**, and click the **Security** tab. When a user's account is locked, the Unlock account check box appears selected. This check box is provided only if the user's account is locked. Otherwise, it does not appear on the user's Security tab.
- 5) Deselect the **Unlock account** check box.
- 6) Click **Apply** to save or **OK** to save and exit.

Change the Status of Multiple Company Users

If you want to change the status of multiple users at the same time, you can select the users from the log and change the status for all those users. This eliminates the need for you to open each user record to modify the user status.

The **License Manager** controls the number of active users within a system.

To change the status of multiple company users:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users**.
- 3) Select the users whose status you want to change.
- 4) Choose **Status** and one of the available statuses (Active, Inactive, On-Hold).

View or Print User Audit Log

To view the Audit Log for a user record:

- 1) Select a user from the Users log.
- 2) Click the **View** menu and choose **Audit Log**. The Audit Log opens, listing each event associated with the user.
- 3) In the Audit Log, double-click a listed event to view the audit record detail, which details the action taken. The details also include for reference the current time zone of the user viewing the audit log.

To print the audit log:

In the Audit Log, click the **Print** button. A PDF file of the audit log is created.

Depending on your browser, the file will be downloaded automatically to your system, or you will be prompted to download it manually.

Reactivating Users

When a company adds a Partner Company and Partner Users to specific company-level and project/shell-level features, the Partner Company and Partner Users are automatically granted the same level of access to the applicable features.

Notes:

- Project/shell access is limited to users (including Sponsor Company users or Member Company users) who are chosen for the project/shell and permissions are configurable for each company.
- These processes apply to the proxy users.

Go to the **Company Workspace** tab and switch to **Admin** mode. In the left Navigator, click **User Administration > Partner Users**, and open a user to open the **Edit User** window. In this window:

- ▶ If you (the administrator) deactivate a Partner Company user from a project/shell that the Partner Company was associated with and later decide to reactivate the Partner Company user for that project/shell, the status of that Partner Company user changes to what it was prior to the deactivation of that Partner Company user.
- ▶ If you (the administrator) remove a Partner Company from a project/shell and later decided to re-add the Partner Company to that project/shell, the status of the Partner Company users changes to what it was prior to the removal of the Partner Company. In this scenario, the administrator must manually activate the Partner Company user at the company level (global), and the system automatically changes the status of the Partner Company user to what it was prior to the removal or deactivation.

Important Information about Reactivating Users

When you deactivate the Partner Company users who are active in a project/shell and later activate the same users, the system reverts the status of the users to "Active" or whatever the user's status was prior to the deactivation.

When you deactivate a Partner Company in Company Workspace, the system removes the Partner Company that exists as a Member Company (in a project/shell). If you deactivate a Member Company from the Partner Company list in the Company Workspace, the system removes the Member Company from all associated projects/shells and sets all Member Company users as "Inactive." When you reactivate the Member Company at the company level, the system adds the Member Company to all previously associated projects/shells; however, the Partner Company users remain as Inactive.

If a Partner Company is a member of a project/shell, but the Partner Company users are all set as "Inactive" in that project/shell, when you (the administrator) decide to reactivate the Partner Company users at the company level, the status of the Partner Company users at the shell level remains as "Inactive."

You can reactivate a deactivated Member Company at the company level (**Company Workspace** tab).

Creating Partner Companies, Users, and Permission Settings (On-Premises Only)

Creating Partner Companies

A Company Administrator of an Owner Company (Sponsor Company) can create multiple partner companies.

To create multiple partner companies, go to **Company Workspace** tab > **Admin** mode > **Partner Companies** > **New**.

In the **New Company** window, enter information in fields of the **General**, **Address**, **Security**, and **Contact** tabs.

The Partner Companies log toolbar allows you to add (**New**), open (**Open**), and find (**Find**) partner companies.

The Partner Companies log displays a list of partner companies (**Company Name**), the name of the contact for the partner company (**Contact Name**), phone (**Phone**), and the partner company standing such as active or inactive (**Status**).

The **Partner Users** node contains multiple *menu* options that you can use to perform steps such as creating new users manually or through import or updating types. The *toolbar* options provide access to some of the same features as well as providing quick access to changing the Status of a user account.

The **Update User Type (To Portal and To Standard)** option, collectively, work as a bulk action on one or more selected user rows by enabling you to update the type of user. For example, you can select one row, or multiple rows, click **Update User Type**, and change the user type to portal, or standard, by clicking **To Portal**, or **To Standard**.

Creating Users for the Partner Company

To add users to a Partner Company, go to **Company Workspace** tab > **Admin** mode > **User Administration** > **Partner Users** > **New**.

When the **Edit User** window opens, you can see the following tabs. Enter data in the fields within each tab.

▶ **General**

1. Enter the name of the Partner Company (the system conducts a search and displays a filtered list of partner companies).
2. Alternatively, you (Company Administrator) can select the name of the Partner Company from the list by clicking the arrow.
3. Fill out the fields under "Contact Information as in Company Directory."
4. Select the Status, and click **OK**.

▶ **Security:** To enter the password for the user.

▶ **Groups:** To add the user to an existing group.

▶ **Permissions:** To assign permissions to various modules in the system.

▶ **Projects/Shells:** The content in this tab is blank when creating a user, and any existing content varies based on the Projects/Shells that the user has access to.

▶ **Proxy:** To manage Proxy settings.

If the user type attribute is not mentioned when creating the user, the user type for that user will be set to Standard user type by default.

When you are creating a user, the User Type drop-down list is defaulted to Standard user, but you can change the User type to Portal.

The Attribute "Earned Value Management" displayed is unchecked by default. If the user checks this option, the user will be granted access to the Earned Value Management module. This check box will be disabled for Portal type of users. The licensing purchased by your organization determines whether EVM is included.

Note: The check box for Earned Value Management users will be seen only when the Earned Value Management module is loaded.

In the **License Manager**, the Company user and Partner user are considered Standard users in terms of license count and combined count for License Terms and Current Usage. The **License Manager** landing page will define a gauge chart for all the following license types, which varies depending on the licensing purchased by your organization:

- ▶ Standard Users
- ▶ Portal Users
- ▶ Earned Value Management Users
- ▶ Collaborator Users

Separate counts for Portal users and Earned Value Management (EVM) users are shown for License Terms and Current Usage. These counts will depend on:

- ▶ The licensing purchased by your organization,
- ▶ Whether a particular Company user is marked as Portal user, and
- ▶ The Earned Value Management user in User Administration.

If there are more users with accounts than the product is licensed for, the calculations in the **Active Named Users** fields might be higher in the **Current Usage** sections versus the **License Terms** sections. The excess or surplus (overage) is calculated in the same way as the Standard users.

The Site Administrator can edit the license terms and view the audit log for the users by clicking the Settings icon.

When editing the user count, the Site Administrator will have to put a combined number for active named users.

Depending on the licensing purchased by your organization, the Site Administrator will also be able to edit the Portal users and EVM users count by using the **General** and **Notifications** tabs on the License Terms window.

For users other than the Site Administrator, only the Notifications tab will be available to be edited.

Permission Settings for Partner Companies

To set permissions for partner companies go to **Company Workspace** tab > **Admin** mode > **User Administration** > **Access Control** > **Administration Mode Access** > **User Administration** > **Partner Companies**.

In the **Module Permission Settings** window, determine the level of permission for each user (in the Partner Company) that is listed. You can click **Add** (to add a new name), **Modify** (to change the permission setting for a user, by way of **Permission/Access Control** window), or **Remove** (to delete a name) in this window.

If you (Company Administrator) create a Partner Company and select **Inactive** for the Partner Company **Status**, then the users that you add for that Partner Company will be inactive. When the contract with a Partner Company ends, you can select **Inactive** for the Partner Company **Status** and inactivate the contract.

Creating Partner Companies and Users (Cloud Only)

A partner company is a consultant, contractor, or vendor company that is associated with an owner company. A partner company may work on some or all the projects/shells that the owner company commissions.

Creating partner companies and users requires you to perform a series of tasks in both Primavera Unifier and Primavera Administration.

For the prerequisites and tasks to create partner companies and users, see the *Primavera Administration Identity Management Guide*.

Adding and Managing Partner Company Users

Adding a Partner Company user lets you grant them access to your company features in the company workspace or projects/shells. You can manage their status, group membership, and permissions. Users can only have access to self-service portal login.

User Type

As part of the log attributes, the **User Type** column in the **Users** log (**Company Workspace > Admin mode > User Administration > Partner Users**) identifies the type of user per following:

- ▶ **SYS User Type/Standard:** The SYS User Type/Standard User, which refers to both Company and Partner users, can have access to all modules, except Earned Value Management (EVM). (The licensing purchased by your organization determines whether EVM is included.) If the Earned Value Management component is selected for a Standard User, it will be available to the Standard User.
- ▶ **SYS User Type/Collaborator:** The SYS User Type/Collaborator User can have access to all modules, except Earned Value Management (EVM). (The licensing purchased by your organization determines whether EVM is included.)
- ▶ **SYS User Type/Portal:** The SYS User Type/Portal User can only have access to the self-service portal login.

Adding a Partner Company User

Partner Company user details are managed by the Site Administrator or the company administrator for the Partner Company. As the company administrator for your company, you can add Partner Company users to your own company at the company or project/shell level and control their status and permissions within your company.

If a Partner Company user is added to a project/shell, the user is automatically added to the Partner Company Users log. Additionally, the system verifies that the user's company is a Member Company; if not, the system adds the Partner Company.

The **License Manager (Company Workspace tab > Admin mode > User Administration > Access Control > Administration Mode Access)** controls the number of active partner company users within a system.

By default, new users will have a status of **Active**. You can change the status or other user detail information selecting the user from the list and clicking **Open**.

To access the Partner Users log:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Users**. To open an existing user record, select a user from the log and click **Open**.

Note: If a **User Attribute** form has been imported, the columns that appear in the Users Log can vary. If designed in uDesigner, the log can include navigation in the left pane. This navigation allows you to filter the display of users listed in the log. If you decide that you want a standard log to display, you can remove the navigation from the log in uDesigner. Also, the search criteria in the Find window and sort order can also vary depending on what was added to the User log design in the User Attribute form.

To add a new Partner Company user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Users**.
- 3) Click **New** from the toolbar to open the Edit User window and complete the form.
- 4) In the Edit User window, complete the fields of the **General** tab as discussed in the following table.
- 5) Click the **Security** tab. You must also add a login user name before saving the record. See **Manage User Login Information (Security Tab)** (on page 111) for details.
- 6) At this point, you can activate the user, save the record, or complete the rest of the tabs:
 - ▶ **Groups:** You can add the user to existing groups. The default groups are Company Administrators, Project Administrators, Shell Administrators, and Support. The user automatically inherits group permissions. See **Manage a user's group membership (Groups tab)** for details.

- ▶ **Permissions:** You can configure individual permission settings for the user in this tab. See **Edit User Permissions (Permissions Tab)** (on page 112) for details. Alternatively, you can assign the user to a group (the user will automatically inherit group permissions), or assign permission through Access Control.
- ▶ **Projects/Shells:** This tab lists the projects/shells to which the user has been added and is view-only. See **View User's Project and Shell Membership (Project/Shell Tabs)**.
- ▶ **Proxy:** You can add or view the user's proxy users in this tab. See **Designate a Proxy User (Proxy Tab)** (on page 113).

7) Click **Apply** to save changes, or **OK** to save and exit the window.

In this field:	Do this:
First Name, Last Name	Enter the first and last name of the user. These are required fields.
Title	Enter an optional company title for the user.
Email	Enter the user's email address, which will be used to send system notifications to the user, and will display in the user's contact information. This is a required field.
Work Phone	Enter the user's work telephone number.
Mobile Phone	Enter the user's mobile telephone number.
Home Phone	Enter the user's home telephone number.
Pager	Enter the user's page number.
Fax	Enter the user's fax number.
Address	Click the Select button to add a company address to the user profile (From Edit Company, Address Tab)
Time Zone	Choose the default time zone for the user. This can be changed in the User Preferences window.
Language	Select a language from the drop-down list. Note: The languages listed are the active languages selected by the administrator in the Configuration - Internationalization log.
Date Format	This setting controls the display of dates on reports, business process forms, and so on. This can be changed in the User Preferences window.
User Type	Select Standard , Collaborator , or Portal . The Standard User and the Collaborator

In this field:	Do this:
	<p>User (which is a type of Partner User) have access to all modules, except Earned Value Management (EVM). (The licensing purchased by your organization determines whether EVM is included. If the Earned Value Management component is selected for a Standard User, it is available to the Standard User.) The Portal User only has access to the self-service portal login.</p>
Earned Value Management	<p>This option is unchecked (cleared) by default. If you select this option, the user will be granted access to the Earned Value Management module. (The licensing purchased by your organization determines whether EVM is included.) This check box will be disabled for the Portal type of users.</p>
Status	<p>New users are Active by default. Status can be Active, Inactive or On-hold. Neither Inactive nor On-Hold users can sign in:</p> <ul style="list-style-type: none"> ▶ Active: User is listed in Project or Shell Directory, in User/Group Picker, User can sign in and participate in project/shell. ▶ Inactive: User's name does not appear anywhere for selection on any project-or shell-related functions or User Picker. User cannot sign in but they can be given permissions and added to groups. ▶ On-hold: User can be added to a project/shell and assigned as a participant in a business process workflow but cannot sign in. Normally used to pre-assign users to a new project/shell before activating it. <p>Active and On Hold users will be counted against your user license terms; Inactive users will not.</p>
Disable Mobile Access	<p>This option is unchecked (cleared) by default. If you want to prevent the user from accessing the Unifier Mobile application, select this option.</p>

Managing Partner Company User: Status, Groups, and Permissions

User details such as contact information are managed for individual users by the company administrator for the Partner Company.

Note: Partner Company users can be granted Company Administrator permissions if you add them to the Company Administrators group. See ***Manage a User's Group Membership (Groups Tab)*** (on page 112) for details on adding users to groups.

You can manage the following information for Partner Company users:

Status: You can change the Partner Company user to Active, Inactive, or On-Hold.

- ▶ *Active* users are eligible to participate in company or project/shell-level activities to which they have permissions.
- ▶ *On-Hold* users appear on user pickers and can be added to business process set ups and project/shell user lists. However, the user cannot log onto the system until they are activated.
- ▶ *Inactive* users will not appear in user pickers. If you inactivate Partner Company users, they will automatically become inactive throughout the system, including in any projects/shells to which they belong. After inactivating, if you then change the status back to Active, their status in projects/shells will not automatically change back to Active; you will need to reactivate them at the project/shell level.

Groups: You can add a partner company user to a company or project/shell-level group as needed.

Permissions: You control permission access for partner company users within your company.

To edit a Partner Company user's details:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Users**. The Users log opens.
- 3) Select a partner company user and click **Open**. The Partner Company Edit User window opens.

Note: If a User Administration design has been imported, the data elements that appear in the General tab of the User Properties can vary.

- 4) Do any of the following:
 - ▶ To change the status of the Partner Company user, click the **General** tab and change the Status field.
 - ▶ To manage a Partner Company user's group membership, click the **Groups** tab. Click Add or Remove.
 - ▶ To manage a Partner Company user's permissions, click the **Permissions** tab. Grant permissions to the user as needed. (In addition, when using Access Control, both Partner Company users and Sponsor Company users can be added to a module.)

- 5) Click **OK** to save and exit.

Changing the Status for Multiple Partner Users

If you want to change the status of multiple users at the same time, you can select the users from the log and change the status for all those users. This eliminates the need for you to open each user record to modify the user status.

Note: The **License Manager** controls the number of active users within a system.

To change the status of multiple partner users:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Partner Users**.
- 3) Select the users whose status you want to change.
- 4) Choose **Status** and one of the available statuses (Active, Inactive, On-Hold).

Importing and Exporting Company and Partner Users

Importing and Exporting for Company Users

When the direction for the Data Element (DE) "uuu_user_company" is set to **Input/Both**, the DE "Company" will be available in the CSV when the user performs **Export Structure**.

When the direction for the DE "uuu_user_company" is set to **Output**, the CSV retrieved through the **Export Structure** action will not have the DE "Company". In this scenario, the CSV can be used to create Company Users.

If the DE "Company" is present in the CSV, the user must include the Owner Company name to complete the CSV import. The system will not validate because the value in the DE "Company" is ignored.

Importing and Exporting for Partner Users

When the User Attribute Form is present, the following conditions apply:

The **Partner Users** log lets you export and import, similar to **Company Users** log.

Go to the **Company Workspace** tab and switch to **Admin** mode.

From the menu bar, click **File**. Click **Export** to see the following sub-options:

- ▶ **All**
To export the list of partner users to a CSV file.
- ▶ **Selection**
To export a list of selected partner users to a CSV file.
- ▶ **Export Structure**
To export the structure for partner users to a CSV file based on the DEs set in the **Integration** node of Partner Users.

If the **Direction** is set to **Output**, in uDesigner, then:

- ▶ The CSV file generated using **All** and **Selection** will export data, but it will not contain the company attribute in the CSV file.
- ▶ The CSV file generated using **Export Structure** will not include company attribute. Such CSV file, when used to create user by way of the **Import** option, will return the error, "Company is required" indicating that a partner user cannot be created without a company attribute.

Similarly, the Import option will be available as a sub-option of the New option in toolbar and menu options (**File > New > Manual** or **Import**). The **Import** option, in this case, lets you perform a bulk import by way of a CSV file. The functionality is similar to the **Import** option on the **Company Users** log.

The user can import partner users through a CSV file only when the company attribute is present. In this scenario, the **Direction** (for **Integration**) must be set to **Input** or **Both** in uDesigner for the user to be able to create partner users by way of the **Import** option.

Note: The company attribute is a mandatory field when creating Partner Users by way of the **Import** option.

When the User Attribute Form is not present, the options to import or export will be available the same ways as when a User Attribute Form is present.

If the User Attribute Form is not defined, and the user clicks **Export Structure** for Partner Users, then the DE "Company" is displayed by default in the exported CSV file.

Reactivating Users

When a company adds a Partner Company and Partner Users to specific company-level and project/shell-level features, the Partner Company and Partner Users are automatically granted the same level of access to the applicable features.

Notes:

- Project/shell access is limited to users (including Sponsor Company users or Member Company users) who are chosen for the project/shell and permissions are configurable for each company.
 - These processes apply to the proxy users.
-

Go to the **Company Workspace** tab and switch to **Admin** mode. In the left Navigator, click **User Administration > Partner Users**, and open a user to open the **Edit User** window. In this window:

- ▶ If you (the administrator) deactivate a Partner Company user from a project/shell that the Partner Company was associated with and later decide to reactivate the Partner Company user for that project/shell, the status of that Partner Company user changes to what it was prior to the deactivation of that Partner Company user.

- ▶ If you (the administrator) remove a Partner Company from a project/shell and later decided to re-add the Partner Company to that project/shell, the status of the Partner Company users changes to what it was prior to the removal of the Partner Company. In this scenario, the administrator must manually activate the Partner Company user at the company level (global), and the system automatically changes the status of the Partner Company user to what it was prior to the removal or deactivation.

Important Information about Reactivating Users

When you deactivate the Partner Company users who are active in a project/shell and later activate the same users, the system reverts the status of the users to "Active" or whatever the user's status was prior to the deactivation.

When you deactivate a Partner Company in Company Workspace, the system removes the Partner Company that exists as a Member Company (in a project/shell). If you deactivate a Member Company from the Partner Company list in the Company Workspace, the system removes the Member Company from all associated projects/shells and sets all Member Company users as "Inactive." When you reactivate the Member Company at the company level, the system adds the Member Company to all previously associated projects/shells; however, the Partner Company users remain as Inactive.

If a Partner Company is a member of a project/shell, but the Partner Company users are all set as "Inactive" in that project/shell, when you (the administrator) decide to reactivate the Partner Company users at the company level, the status of the Partner Company users at the shell level remains as "Inactive."

You can reactivate a deactivated Member Company at the company level (**Company Workspace** tab).

Adding and Managing Groups

Company-level user groups can be used to group users who will be using the same functionality in the system and assigned the same Permissions. Anytime a new person comes onto the project/shell, you can assign them to the appropriate groups and their permissions will be set automatically.

There are three default groups created for new companies: Company Administrators, Project Administrators, and Support. You can edit group information and permissions as necessary, and create groups as needed.

For example, you may want to create a "Finance Admin" group and give them permission to create and modify Cost Sheet Templates. Another "Finance User" group may have permission to access and work with project/shell-level cost sheets, but not the templates. These users may require access to only those modules and reports dealing with finances, but not other areas of the company, project, or shell.

To access user groups:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Groups**.

Create a Group

The following discusses how to create a group.

To create a group:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Groups**. The Groups log opens.
- 3) Click the **New** button. The Groups window opens.
- 4) Complete the **General** tab as outlined in the following table.
- 5) At this point you can also complete the other two tabs:
 - ▶ Add user to the groups in the **Members** tab.
 - ▶ Add group permissions in the **Permissions** tab.
- 6) Click **OK** to add the new Group.

In this field:	Do this:
Group Name	Enter a name for the group.
Group Manager	Click Select and select the person responsible for administering the group. This person automatically becomes a member of the Group.
Group Description	Enter a description, such as the group's function or permission level.

Add Users to a Group (Members Tab)

This section discusses how to add and manage a group's membership. You can add company users or partner company users to a group. You can also manage a user's group membership in the Groups tab of the Edit User window of both company and partner users.

To add a user to a group:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Groups**. The Groups log opens.
- 3) Select a group and click **Open**. The Groups window opens.
- 4) Click the **Members** tab, and click **Add**. The User/Group Picker opens. The User/Group Picker displays all Active or On-Hold users from the sponsor company and all Partner Companies. The company affiliation is noted in the Company column on the picker.

Note: If a User Administration design has been imported, the content of the User/Group picker (in User view) can vary. The Find window and sort order can also vary depending on the optional design.

- 5) Select the user(s) to add to the group. (Press the **Ctrl** or **Shift** keys to select more than one user name.)

- 6) Click **Add**. Users will appear in the Selected Users box.
- 7) Click **OK**, then click **OK** to close the Groups window.

To remove a user from a group:

From the Groups window, **Members** tab, select the user on the list and click **Remove**.

Edit Group Permissions (Permissions Tab)

The permissions assigned here will be applied to all members of the group. Users within the group inherit permissions from the group. If a user is in more than one group, then the highest level of permissions granted in any group for a module will prevail.

To assign permissions:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Groups**. The Groups log opens.
- 3) Select a group and click **Open**. The Groups window opens.
- 4) Click the **Permissions** tab.
- 5) You may click the **plus sign** next to a module to expand the options. Scroll up or down, as needed.
- 6) Select a module in the upper portion of the window. Choose the **Permission level** for that module in the lower portion.
- 7) Click **OK** to save.

To copy permissions from a template:

- 1) In the Permissions tab, click the **Copy Permissions** button.
- 2) Select the template and click **OK**. All permissions settings in the user record will be overwritten and replaced with the permission settings from the template.

Delete a Group

Company Administrators can delete an existing user group from the shell. This section describes how to manually delete a user group from a shell.

Note: You can delete a user group from a specific shell template but not from other Projects/Shells that have been created using the template.

To delete an existing user group:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Open the project/shell and in the left Navigator, click **Templates > Shells > [shell type] > [shell templates] > User Administration > Groups**.
- 3) Select a user group from the log.
- 4) Click **Delete**.

Note: System prompts the user asking to confirm deletion of the user group.

5) Click **Yes** to delete the user group.

Integration Users

Integration user refers to a user who is performing integration, using the SOAP and REST services.

Note: Support for SOAP services is deprecated beginning with version 23.10.

You (Administrator) can use the **Integration Users** sub-node (under **User Administration** node) to view the list of integrated users, create integrated users, and assign or edit permissions for Document Manager and access protocol (Legacy).

Note: If you create a Support Request (SR) to switch from using Basic Authentication (Basic) to Open Authorization (OAuth) Authentication, as described in **V1 and V2 OAuth Authentication Setup and Details** of the *Oracle Primavera Unifier Integration Interface Guide*, you must use the Primavera Portal to create integration users; you cannot use Unifier. Additionally, the Status of existing integration users is changed to Inactive.

To access the Integration Users sub-node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.

The **Integration Users** log contains the following elements:


Toolbar options

- ▶ **Create**
- ▶ **Refresh**
- ▶ **Print**
- ▶ **Find on Page**

Columns

- ▶ **First Name**
- ▶ **Last Name**
- ▶ **User Name**
- ▶ **Status**

- ▶ **Description**
- ▶ **Auth Type**
- ▶ **Timezone**

To view details for a specific user, select the user in the log, click the *gear menu* (), and select **Open**.

The following explains each element in detail.

Creating Integration Users

Note: If you create a Support Request (SR) to switch from using Basic Authentication (Basic) to Open Authorization (OAuth) Authentication, as described in **V1 and V2 OAuth Authentication Setup and Details** of the *Oracle Primavera Unifier Integration Interface Guide*, you must use the Primavera Portal to create integration users; you cannot use Unifier.

To create an integration user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.
- 3) In the toolbar of the **Integration Users** log, click **Create** to open the **Create User** window.

Note: If you are using OAuth Authentication, the **Create** button is dimmed. As explained earlier, you must use the Primavera Portal to create integration users.

- 4) Fill out the form.
- 5) Click **Done**.

The following explains each block and field in the **Create User** window:

General block provides general information about the integration user. The **General** block has the following fields:

- ▶ **First Name**
- ▶ **Last Name**
- ▶ **Status**
 - ▶ **Active**
 - ▶ **Inactive**
- ▶ **E-mail**
- ▶ **Language** (system default language)
- ▶ **Description**
- ▶ **Time Zone** (system default time zone)
- ▶ **Date Format**

Security block provides the ability to add a user name and password for a user. The **Security** block has the following fields:

- ▶ **User Name**
- ▶ **Password**
- ▶ **Confirm Password**
- ▶ **Expiry Duration**
- ▶ **Expiry Units**

Permissions block

It provides the ability to determine the permissions that the user has (for modules in the system). The **Permissions** block has the following fields:

Administration

- ▶ Company Administration
 - ▶ Full Access: This permission will provide full access to the system.
 - ▶ Create: This permission will provide access to all the POST services.
 - ▶ Update: This permission will provide access to all the PUT services.
 - ▶ Get: This permission will provide access to all the PUT services.
- ▶ User Administration
 - ▶ Full Access: This permission will provide access to adding and maintaining user-level access.
 - ▶ Create: This permission will provide access to all the POST services.
 - ▶ Update: This permission will provide access to all the PUT services.
 - ▶ Get: This permission will provide access to all the PUT services.

Business Process

- ▶ Business Process Service
 - ▶ Full Access: This permission will provide full access to services related to business processes (BPs).
 - ▶ Create: This permission will provide access to all the POST services related to BPs.
 - ▶ Update: This permission will provide access to all the PUT services related to BPs.
 - ▶ Get: This permission will provide access to all the PUT services related to BPs.
- ▶ Non-Workflow Business Process Permission
 - ▶ Update: This permission will provide access for maintaining non-workflow BPs.
 - ▶ Get: This permission will provide access to all the PUT services related to non-workflow BPs.

Document Manager

- ▶ Document Services
 - ▶ Full Access: This permission will provide full access to services related to Documents.
 - ▶ Create: This permission will provide access to all the POST services for Documents, which includes:

Create Documents by Path

Create Documents by Parent Folder ID

- ▶ Update: This permission will provide access to all the PUT services for Documents, which includes:

Update Documents Metadata by Path

Update Document Metadata by Document ID

- ▶ Get: This permission will provide access to all the PUT services for Documents, which includes:

Get Documents by Path

Get Documents by Parent Folder ID

Get Document by File ID

- ▶ Folder Services

- ▶ Full Access: This permission will provide full access to services related to Folders.

- ▶ Create: This permission will provide access to all the POST services for Folders, which includes:

Create Folder by Path

Create Folder by Parent Folder ID

- ▶ Update: This permission will provide access to all the PUT services for Folders, which includes:

Update Folders Metadata by Path

Update Folder Metadata by Folder ID

- ▶ Get: This permission will provide access to all the PUT services for Folders, which includes:

Get Folders, or Documents, Metadata by Path.

Get Folders, or Documents, Metadata by Parent Folder ID

Reporting

- ▶ User Defined Reports

- ▶ Get: This permission will provide access to all the PUT services for user-defined reports (UDRs).

Legacy block

SOAP Services

- ▶ The Full Access permission will be supported for all the Legacy SOAP services.
- ▶ The check boxes will be selected by default when clicked on Full Access.

Cost

- ▶ CBS Services

- ▶ Full Access: This permission will provide full access to services related to Work/Cost Breakdown Structure (WBS/CBS).

- ▶ Create: This permission will provide access to all the POST services related to CBS Services.
- ▶ Update: This permission will provide access to all the PUT services related to CBS Services.
- ▶ Get: This permission will provide access to all the PUT services related to CBS Services.
- ▶ CashFlow Services
 - ▶ Full Access: This permission will provide full access to services related to CashFlow Services.
 - ▶ Create: This permission will provide access to all the POST services related to CashFlow Services.
 - ▶ Update: This permission will provide access to all the PUT services related to CashFlow Services.
 - ▶ Get: This permission will provide access to all the PUT services related to CashFlow Services.
- ▶ CashFlow Permissions
 - ▶ Update: This permission will provide access for maintaining permission levels for CashFlow Services.
 - ▶ Get: This permission will provide access to all the PUT services related to CashFlow Services.

Fund

- ▶ Fund Services
 - ▶ Full Access: This permission will provide full access to services related to Fund Services.
 - ▶ Create: This permission will provide access to all the POST services related to Fund Services.
 - ▶ Update: This permission will provide access to all the PUT services related to Fund Services.
 - ▶ Get: This permission will provide access to all the PUT services related to Fund Services.

ScheduleSheet

- ▶ Schedule Sheet Services
 - ▶ Full Access: This permission will provide full access to services related to Schedule Sheet Services.
 - ▶ Create: This permission will provide access to all the POST services related to Schedule Sheet Services.
 - ▶ Update: This permission will provide access to all the PUT services related to Schedule Sheet Services.
 - ▶ Get: This permission will provide access to all the PUT services related to Schedule Sheet Services.

Activity Manager

- ▶ WBS Services

- ▶ Full Access: This permission will provide full access to services related to Work/Cost Breakdown Structure (WBS/CBS).
- ▶ Create: This permission will provide access to all the POST services related to WBS Services.
- ▶ Update: This permission will provide access to all the PUT services related to WBS Services.
- ▶ Get: This permission will provide access to all the PUT services related to WBS Services.

ExchangeRates

- ▶ Exchange Rates Services
 - ▶ Update: This permission will provide access to all the PUT services related to Exchange Rates Services.
 - ▶ Get: This permission will provide access to all the PUT services related to Exchange Rates Services.

Space Manager

- ▶ Space Manager Services
 - ▶ Full Access: This permission will provide full access to services related to Space Manager Services.
 - ▶ Create: This permission will provide access to all the POST services related to Space Manager.
 - ▶ Update: This permission will provide access to all the PUT services related to Space Manager.
 - ▶ Get: This permission will provide access to all the PUT services related to Space Manager.

Updating Permissions for Integration Users

To update the permissions for an integration user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.
- 3) Double-click the name of the applicable user to open the **Update User** window.
- 4) Click **Permissions** to expand the form.
- 5) Set the integration user permission for the applicable areas:
 - ▶ **Administration**
 - ▶ **Business Process**
 - ▶ **Document Manager**
 - ▶ **Reporting**
 - ▶ **Legacy**

- ▶ **Cost**
 - ▶ **Fund**
 - ▶ **ScheduleSheet**
 - ▶ **Activity Manager**
 - ▶ **ExchangeRates**
 - ▶ **Space Manager**
- 6) Click **Done**.

Printing and Exporting Integration Users

To print a list of the integration users:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.
- 3) In the toolbar of the **Integration Users** log, click **Print**, select the **Print** option, and follow the prompts.

To export the integration users to CSV:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.
- 3) In the toolbar of the **Integration Users** log, click **Print**, select the **Export To CSV** option, and follow the prompts.

To export the integration users to Microsoft Excel:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Integration Users**.
- 3) In the toolbar of the **Integration Users** log, click **Print**, select the **Export To Excel** option, and follow the prompts.

Access Control for Integration Users

To set permissions for Integration Users:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) On the right pane, expand **Administration Mode Access** and then expand **User Administration**.
- 4) Click **Integration Users**.

You can assign the following permissions:

Permission	Expected Behavior When Checked
Create	<p>When you check this option, the system selects the following permissions:</p> <ul style="list-style-type: none"> ▶ Modify ▶ View <p>A user with the "Create" permission can add users, modify the user status, and view the user details.</p>
Modify	<p>When you check this option, the system selects the "View" permission.</p> <p>A user with the "Modify Status" permission can modify the user status and view the user details.</p>
View	<p>A user with the "View" permission can view the user details.</p>

Managing Users in Bulk

You can use bulk processing to manage users across a large number of projects/shells. Bulk processing means that you can perform the same action on a large number of user records without having to navigate to each record and perform the same action repeatedly. You can perform this bulk processing at the project/shell level.

Note: For cases where users have the same first and last name, the combination of first name, last name, company, and email address is used to uniquely identify a user. The email address is required on all imported rows.

You can use bulk processing to:

- ▶ Add or remove user group assignments
- ▶ Add new users
- ▶ Change the status of existing users
- ▶ Update multiple users in the User logs for Company or Partner users

Change User Group Assignments or Add New Users in Bulk

To add or remove user group assignments in bulk :

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Company Sponsored Shells >** shell log (for the shells that you have configured).
- 3) Open the project/shell from the log.

- 4) In the left Navigator, click **User Administration > Groups**.
- 5) In the **Groups** log, double-click the group that you want to assign users to.
- 6) On the **Members** tab, click **Add** to open the User/Group picker window.
- 7) Select the user(s) to add to the group and click **Add** to move users to the **Selected Users/Groups** list. Use Ctrl+Shift to select multiple users simultaneously.
- 8) Click **OK** when finished.

To add new users to a shell in bulk:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Company Sponsored Shells >** shell log (for the shells that you have configured).
- 3) Open the project/shell from the log.
- 4) In the left Navigator, click **User Administration > Users**.
- 5) Click **New** to open the User/Group picker window.
The Users/Groups are listed based on the company selected in the **List Names from** list at the top of the window.
- 6) Select the user(s) to add to the group and click **Add** to move users to the **Selected Users/Groups** list. Use Ctrl+Shift to select multiple users simultaneously.
- 7) Click **OK** when finished.

Update Multiple Company or Partner Users

Bulk edit of Company or Partner users relies on fields defined in Integration and is available only if the User Attribute form has been imported. For Partner users, the only additional attributes that are available for bulk edit are those that were added by importing the User Attribute form.

Note: Bulk update of status is available through the Status button in the Users log toolbar.

To update multiple users in the Users log:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Company Users** or **User Administration > Partner Users**.
- 3) From the log, select users to modify.
- 4) Choose **Edit > Bulk Edit**.
- 5) Modify the Bulk Edit form as needed.
- 6) Select the **Update** check box for the fields you want to update. The check box is automatically selected when you type into or modify a field. You can deselect it if you do not want to modify the field at this time.
- 7) Click **Update**. This launches the bulk update of the selected records.

The Bulk Actions Status window displays after you click Update. This window lets you monitor the progress of the bulk update. Click OK after all records have processed. Click Cancel if you want to cancel the bulk update in progress.

Creating and Managing User Preference Templates

User Preference templates can be used to configure the default user preference settings for new users. It can also be used to update existing users' user preferences by "pushing" the preference options. In this way, you can establish a standard for your users' preference settings.

Create a User Preferences Template

You can create any number of user preferences templates.

To create a User Preferences Template:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > User Preference Templates**. The **Preference Templates** log opens.
- 3) Click **New**. The User Preferences Template window opens.
- 4) On the **General** tab, enter a name for the template. Each template must have a unique name. Enter an optional description.
- 5) For **Status**, choose **Active** or **Inactive**. You can create any number of templates, but only one can be active at a time.

The Active template will be used as the default user preference settings when adding new company users. The other templates can be used to update ("push") preference settings to existing users.

- 6) Click the **Preference** tab. The Preferences tab appears exactly like the Options tab of a user's User Preference window. Complete the fields in the window.
- 7) Click the **Region Format** tab. Select the following: Language, Time Zone, Date Format, and Number and Currency Formats.

Note: The languages listed are the active languages selected by the administrator in the **Configuration - Internationalization** log.

- 8) Click **Apply** to save changes, or **OK** to save and close the window.

Update Users with User Preferences Template

You can create multiple user preference templates. The Active template will be used as the default template when creating users. The other templates can be used to update ("push") preference settings to existing users (Company users and Partner users).

The Update Users process runs in the background. Depending on the number of records and projects/shells you are updating, it can take a considerable amount of time to complete. The process is complete when the End Date column in the Update History window shows the completion date.

To apply the user preferences template to selected users:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > User Preference Templates**. The **Preference Templates** log opens.

- 3) Select any template in the log.
- 4) Click the **Update Users** button and choose **Users**. The User Picker opens. The picker lists Company users and Partner users. Only the Active and On-hold users are displayed.
- 5) Select the users to update and click **Add**. Click **OK** to close the picker window. You can select one or more partner users along with company users to update their user preferences.
- 6) Select preferences to update. Only selected options are updated. Email subscription choices are not selectable; they are determined by the template.
- 7) Click **OK**.
- 8) Click **Yes** to confirm. The user preferences of the selected user(s) will be updated with the template settings.

To apply the user preferences template to all users:

- 1) In the Preference Templates log, select a template.
- 2) Click the **Update Users** button and choose **All Users**. This includes Company users and Partner users.
Users are identified by their unique User ID.
- 3) Select preferences to update. Only selected options are updated. Email subscription choices are not selectable; they are determined by the template.
- 4) Click **OK**.
- 5) Click **Yes** to confirm.

View Update Users History

The **History** log, under the **Update User Type**, will show the list of the selected users, including the partner users, and the status of the user preference update for those users.

You can view details about previous Update User runs.

To view Update Users History:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > User Preference Templates**. The Preference Templates log opens.
- 3) Click the **Update Users** button and choose **History**. The **Update Users: History** window opens. It lists the following:
 - ▶ Requestor: User who initiated the update process
 - ▶ Users: Displays all company sponsored users selected (either the selected users or all users).
 - ▶ Partner Users: Displays all partner users selected
 - ▶ Submit date: When the update request was submitted
 - ▶ Start date: When the update process started
 - ▶ End date: When the update process ended
 - ▶ Status: Status of the request
- 4) Select an instance from the list and click **Open** (or double-click to open). The History Details window opens, displaying which users were updated by the request.

Cancel a User Update Request

You can cancel an update request that has not yet started, that is, the status is not **In Process** or **Finished**.

To cancel a user update request:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > User Preference Templates**. The Preference Templates log opens.
- 3) Click the **Update Projects** or **Update Shells** button and choose **History**. The Update Projects or Shells: History window opens.
- 4) Select an update that has not yet started.
- 5) Click **Cancel Request**.

Updating the Email Address for a Project/Shell

After the system is installed, a dedicated email address is specified for the company. When a Project/Shell is created, the system assigns a unique identifier to the Project/Shell. The system combines the dedicated email address and the Project/Shell identifier and creates the Project Mailbox. The Project/Shell email address appears on the **Options** tab of the Project/Shell details page.

The Project/Shell Administrator can define the project email address to create a more meaningful name that is related to the project.

The existing format for an email address in Prefix pattern is: <PID>-<Configurator email>@<Domain>.

The existing format for an email address in Suffix pattern is: <Configurator email>@<Domain>+<PID>@<Domain>.

The string that you enter in the Email Address field is prefixed/suffixed to the project email address based on the **Unifier Configurator** settings. By default, the system generates the "<PID>" and places it as the first part of the project email address.

You can change the project email address at any time; however, the system retains the emails belonging to a previous mailbox of the Project/Shell in the new mailbox.

The following explains the rules for naming an email address:

- ▶ Must be alphanumeric.
- ▶ Can include non-ISO characters.
- ▶ Cannot contain more than 170 characters.
- ▶ Cannot include the at (@), plus (+), or dash (-), symbols.

The following characters are not acceptable for the <PID>: / \ () ~ ! @ # \$ % ^ & * { | , ; " < > ' } + - : ? space characters = [].

Note: For an existing Project/Shell, the input box for Email address cannot contain zero (0) because internally the system uses zero (0), at the time of creating the Project/Shell, to populate the Project ID

(<PID>_). As a result, zero (0) is not a valid input for the Email Address field.

To update the email address:

- 1) Go to the project/shell tab and switch to **Admin** mode.
- 2) In the left Navigator, click the project/shell name.
- 3) Click the more menu option (the three horizontal dots icon next to **My Dashboard**) and select **Details**.
- 4) In the **Details** window, select the **Options** tab.
- 5) In the **Email Address** field, enter the new label that you want to use as part of the email address.

For example, the system automatically assigns the Project Number as the customized label. You might want to replace this label with the Project Name.

- 6) Click **Save**.

Creating and Maintaining an Approved Email List for Project/Shell Mailboxes

Emails are important tools for communication, and they need to be included in the Project/Shell. Emails can come from:

- ▶ Project/Shell members who send emails from outside the system.
- ▶ External Users who do not use the system.

The system collects emails, and their attachments, in a central repository, called a **Mailbox**. This repository lets users use emails to manage and document a Project/Shell.

Note: Emails can also be linked to business process records.

After an email resides in the Project/Shell Mailbox, a user can forward the email to appropriate members, flag the email for review, or reply to the email.

When the system is installed for your environment, a dedicated email domain for your company is specified. When you create a Project/Shell, the system assigns a unique identifier to the Project/Shell. To create a dedicated mailbox as the communication repository for the Project/Shell, the system combines your company email address (domain) and the Project/Shell identifier.

The system considers email addresses used by any company or partner user as "approved" and automatically whitelists the email addresses. To work with other External Users, such as vendors, you (the Administrator) must create a list of approved domains or email addresses, or both, that should be accepted by the Project/Shell Mailbox. This helps prevent spam and virus attacks from infiltrating your system, by way of external emails. You can add the approved domains and email addresses for all the users (Unifier users and External Users) by using the Approved Email List feature. By adding a domain, you do not have to enter individual email addresses. You can also use the Approved Email List feature to import names and email addresses from a CSV file.

Note: The system accepts up to 1,000 emails from any single address

per day. The system ignores, as spam, any number of emails beyond 1,000.

To create an approved email list (email address of an individual):

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Approved Email List**.
- 3) Click **New** to open the **Add address or domain** window.
- 4) In the **Email/Domain** field, enter the email address of the individual, for example: `someone@example.com`
- 5) (Optional) In the **First Name** and **Last Name** fields, enter the name of the user.
- 6) If you want to add another email address, click **Apply**; otherwise, click **OK** to close the window.

To create an approved email list (Internet domain name):

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
 - 2) In the left Navigator, click **Standards & Libraries > Approved Email List**.
 - 3) Click **New** to open the **Add address or domain** window.
 - 4) In the **Email/Domain** field, enter the Internet domain name, for example: `@example.com`
-

Notes:

- Domain names have to start with the "at" (@) symbol.
 - Names *can* include letters (abc), numbers (123), period (.), and dashes or hyphens (- - -).
 - Names *cannot* include any other special characters or spaces.
 - Names *cannot* begin or end with a dash or hyphen.
 - If the system detects a domain name, the system disables the **First Name** and **Last Name** fields.
-

- 5) Click **Apply** and then click **OK**.

To edit an email address:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Approved Email List**.
- 3) In the log, select the email address that you want to edit and double-click the email address to open it. The **Add/Edit Approved Emails** opens.
- 4) Edit the information and click **OK**.

To delete an email address:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Approved Email List**.
- 3) In the log, select the email address you want to delete and click **Delete**.

To find a specific email address:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
-

- 2) In the left Navigator, click **Standards & Libraries > Approved Email List**.
- 3) In the log click **Find** to open the **Find** window.
The **Find** window shows fields from the list, which you can use to narrow the list of items you see on the list. These fields show an *operator*, such as "contains" or "equals," which you can use to specify more precisely which items you want to search for.
- 4) Click the operator beside the field and choose the operator you want to use on the field, such as "equals," "does not contain," or "is empty".
- 5) Enter the value the field should contain.
You can enter a partial name or address.
- 6) Click **Search** (or press **Enter**).
The system will display the address(es) or name(s) that match the criteria you entered. It will also identify the criteria by which you have searched the list in the "**Current View: filtered by**" line above the list. If you choose to, you can cancel the find action by clicking [**Cancel Filter**]. The system will restore the list to its unfiltered state.

Importing and Exporting Email Addresses

If the user and email address information is stored in another software application, such as Microsoft Excel, you can import the information from the software application into the Approved Email List. You can also export the information from the Approved Email List to another software application, if necessary.

The **Export** option, on the toolbar, lets you export:

- ▶ All
- ▶ Selected Rows
- ▶ Structure

Note: If you choose the **Export > All** option, you do not need to create a template structure.

The **Import** option, on the toolbar, lets you open the File Upload window and select files.

To import and export *email addresses*, you first need to create a template structure to use for both the import and export actions.

To create a template structure:

- 1) On the **Approved Email List** log, click **Export** and select **Structure**.
- 2) At the prompt, click **Open**.
The system opens a CSV file (for example: `unifier_approved_emails.csv`) showing the user information in the columns for:
 - ▶ Email / Domain*
 - ▶ First Name
 - ▶ Last Name
- 3) Save the CSV file.
This CSV file becomes the template for importing and exporting Approved Email List data.

In the CSV file, you can enter the email address information. If an email, or Internet domain name, is already in use and you try to add it again, then the system notifies you about the duplicate record.

Notes:

- Do not change column structure. Columns marked with asterisk (*) contain mandatory/required information.
 - Upon importing, if the email, or Internet domain name, is not present in the Approved Email List log, then the system creates a record.
 - Upon importing, if the email is present in the Approved Email List log, then the system updates the First and Last Name information for that associated record.
 - Upon importing, if the Internet domain name is present in the Approved Email List log, then the system ignores the First and Last Name information for that associated record.
-

Example

Email / Domain*	First Name	Last Name
user1@example.com	User1	Partner
user2@oracle.com	User2	Contractor

To import approved email addresses:

- 1) On the **Approved Email List** log, click **Import**. The **File Upload** window opens.
- 2) Use **Browse** to navigate to the CSV file you want to import.
- 3) Click **OK** to upload the file into the Approved Email List.

To export all approved email addresses:

- 1) On the **Approved Email List** log, click **Export** and select **All**.
- 2) Select the CSV file and click **OK** to begin export.

The system exports all the email addresses on the approved list to the CSV file and open the file.

You can edit the file and import it back into the system, or you can save the file for later updates.

To export specific approved email addresses:

- 1) On the **Approved Email List** log, select the email addresses that you want to export.
- 2) Click **Export** and select **Selected Rows**.

The system exports all the email addresses that you selected to the CSV file and open the file.

You can edit the file and import it back into the system, or you can save the file for later updates.

Managing Permissions and Access Control

Permissions can be set at different levels in the system (the company level or project/shell level).

The permission settings can be done in these functional nodes:

- ▶ Access Control
- ▶ Company User
- ▶ User Administration > Groups
- ▶ Standards & Libraries > Permissions

A user can be granted permissions individually or can inherit them from the groups to which the user belongs.

If a user is in more than one group, the highest level of permissions granted in any group for a module will prevail.

Users can be granted individual permissions in addition to group permissions. If the user-level and group-level permissions are different for a module, the highest level will be granted to the user.

Note: If you grant permissions to project/shell-level (User mode) features from the company-level, the new permission settings will take effect on future projects/shells the user is assigned to, but not on current projects/shells. To grant permissions to a user for a current project, be sure to change the permissions from the project/shell level user record.

Permissions in a project/shell template from which the project/shell is created override the company-level permissions.

Permissions Tab versus Access Control

You can use the following methods to control permissions and access to features and records:

- ▶ Access Control
- ▶ Permissions tab

Both of these will let you manage permissions. See below to help you decide which to use.

Access Control

Access Control displays the permissions granted to all users and groups per module. It lets you quickly see which users and groups have access to each module and at what permission setting.

You can add, remove, or adjust permissions for multiple users or groups at once, rather than editing the properties for each user or group individually. For example, if you must grant access permissions to a newly set up business process, or want to verify that all team members have access to a new feature, it may be easier to do this in Access Control rather than opening each individual group or user record.

You can also generate and print an Access Information table summarizing permission settings.

Permissions Tab

You can manage individual user or group permissions in the Permissions tab, which is part of the Properties window for the user or group record. Use the Permissions tab to quickly view or adjust permission settings for a particular user or group.

The Permissions tab also enables access to permission templates. You can copy a permission template to quickly set up the permissions for a new user or group; you can also save an existing user or group's permission settings as a new template for later use.

See ***Edit User Permissions (Permissions Tab)*** (on page 112) or ***Edit Group Permissions (Permissions Tab)*** (on page 129).

Edit User or Group Permissions Using Access Control

To adjust permission settings using Access Control:

- 1) Do one of the following:
 - ▶ To open company level access control, go to the **Company Workspace** tab and switch to **Admin** mode. Open the **User Administration** grouping node and click **Access Control** in the left Navigator. The Access Control window opens in the right pane of the Unifier window. The window displays a copy of the Navigator.
 - ▶ To open access control for a project, open the project, switch to **Admin** mode, and click **Access Control** in the left Navigator. The Access Control window opens in the right pane of the Unifier window. The window displays a copy of the Navigator.
 - ▶ To open access control for a shell, open the shell, switch to **Admin** mode, and click **Access Control** in the left Navigator. The Access Control window opens in the right pane of the Unifier window. The window displays a copy of the Navigator.
- 2) Select a module in the Access Control window. The Module Permission Settings window opens. It lists the user(s) and group(s) that currently have access to the selected module and their permission settings.

You can **Add**, **Modify**, or **Remove** users or groups, and grant permission levels. See the following procedures.

To add user and group access to a module:

- 1) From the **Module Permission Settings** window, click **Add**. The Permission/Access Control window opens.
- 2) Click **Add Users/Groups**. The **User/Group Picker** opens.
- 3) Select users and/or groups from the list, click **Add** to add them to the Selected Users/Groups list, and click **OK**.
- 4) In the **Permission Settings** window, select the level of permissions you want to assign to the Users/Groups. Click **OK**.

To remove a user/group and their related module permissions:

In the **Module Permission Settings** window, select the check box next to the user or group and then click the **Remove** button.

To modify permission settings:

In the **Module Permission Settings** window, select the check box next to the user or group and then click the **Modify** button. Make changes to permission settings as needed and click **OK**.

Create or Edit a Permission Template

Permission templates are sets of permissions that can be applied to users or groups of users as a whole. This is often an easier alternative to setting individual access permissions, especially when setting up groups and working with large project/shell teams. You can apply the template to a user or group to set basic permissions, then modify the permissions for individuals or groups if needed.

Any project/shell level permission granted at the company level and then applied to a specific user or group of users is inherited at project/shell creation time. The user permissions can then be modified at the project/shell level if further modifications are necessary.

By design, when you create a Permission-based UDR report at the template level:

- ▶ The company level BPs, and the company level Document Manager, data sources will not be available in the Data Type pulldown (drop-down) field.
- ▶ The shell level BPs, and the shell level Document Manager, data sources will be available in the Data Type pulldown (drop-down) field.

To create a permission template:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Permission Templates**. The Permission Templates log opens.
- 3) Click the **New** button. The Edit Permission Template window opens.
- 4) Add a name and description of the template in the **General** tab.
- 5) Click the **Permissions** tab. This window is the same as the Permissions tab for an individual user or group record.
- 6) Configure the permissions settings and click **OK**.

To edit a permission template:

- 1) Select the template from the **Permission Template** log and click the **Open** button. The Edit Permission Template window opens.
- 2) You can edit the name or description in the General tab.
- 3) Click the **Permissions** tab and adjust permission settings as needed.
- 4) Click **OK**.

To create a permission template from existing permission settings:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Groups**.
- 3) Select a group and click **Open**.
- 4) Click the **Permissions** tab.
- 5) Click the **Save as Template** button. Enter a template name and click **OK**.

Generate and Print an Access Information Report

You can generate and print an Access Information summary report of user and group permission settings. The report will display all user and group permissions.

To generate the Access Information report:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Go to the **User Administration** grouping node in the left Navigator and click **Access Control**.
- 3) Click the **Access Information** button. The Access Information window opens. It may take several moments to generate the report.

To print the Access Information report:

- 1) Generate the **Access Information** report. When the report is complete, the Print button becomes available on the toolbar.
- 2) Click the **Print** button. Select the printer and click **OK**.

Announcements Node

In addition to the Site (or System) Administrator, a Company Administrator will be able to create Announcements. Also, A Company Administrator will be able to define whether a particular announcement should be displayed to:

- ▶ Users.
- ▶ Bidders.
- ▶ Users and bidders.

Note: Announcements are displayed to all the users of the owner company and all partner users. Bidders are also able to view all announcements by the Owner Company, in the Bidder Portal

To access the **Announcements** module:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > Announcements** to open both the **Announcements** log and the **Announcement** properties page (the pane on the right).

The **Announcements** log (toolbar options) lets you:


- ▶ Create an announcement (**+ Create** icon).
- ▶ Delete or change the status of an existing announcement (**Actions** drop-down menu).
- ▶ Refresh the log items (**Refresh** icon).
- ▶ Print, or export, the contents of the log (**Print** icon).
- ▶ Find items on the log (**Find on Page** icon). If you decide to cancel the find for an entire row, you must click the **Find on Page** icon again.

The **Announcements** log contains the following columns:

- ▶ **Title**
- ▶ **Status**

- ▶ **Last Modified By**
- ▶ **Last Modified Date**

When the log is displayed, the default sort order is descending date of records (**Last Modified Date**).

When you select an announcement record, or you hover over an announcement record, a *gear menu* () will be displayed. The *gear menu* lets you delete the selected announcement or change the announcement status.

The **Announcement** properties page (the right pane) also lets you see, or change, the details of an existing announcement. You must first select an announcement on the **Announcements** log. The **Announcement** properties page (the right pane) also lets you:

- ▶ Enter a title for your new announcement (**Title**). You must click the create announcement (+ **Create** icon) option, first.
- ▶ Enter the text for a new announcement (**Announcement Text**). Maximum of 4000 characters, including formatting and HTML tags.
- ▶ Assign a status for your new announcement (**Status**). Active announcements cannot be deleted.
- ▶ Determine the audience (**Make an Announcement for**). The default is "**Both**" the Users and Bidders.

Announcement Properties

When you create an announcement record that is unread, a red bubble count-indicator icon appears on top of the gray announcement icon (the megaphone icon). In the bubble icon, the number of unread announcements is displayed.

When there are no unread announcements, the bubble count-indicator disappears.

When you click the announcement icon (the megaphone icon), a grid appears that displays all the unread announcements, highlighted in red. All the announcements are displayed in descending order, according to the date.

After an announcement record has been read by a user, the title of the record is displayed in black. When you click the announcement hyperlink, the announcement grid appears.

In the announcement grid, only the active (**Status = Active**) announcement records are displayed. The **Title**, **Last Modified By**, and **Last Modified Date** (for both company and system announcements) fields are also displayed.

For the system announcements created by the Site Administrator, the sign-in name of the Site Administrator is displayed in the **Last Modified By** field.

For company announcements, the full name (First + Last Name) of the user who created (**Last Modified By**) the record, is displayed in the **Last Modified By** field.

Access Control for the Announcements Node

To assign access:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, expand **Administration Mode Access** and then expand **General Administration**.
- 4) Click the **Announcements** sub-node to open the **Module Permission Settings** window (**Permission Settings for: Announcements**).
- 5) Click **Add**, click **Add Users/Groups**, click and select user, group, or both, and click **Add**.
- 6) Assign permission: **Create** or **View**.
Create: Users/Groups with Create announcements permission will be able to create, modify, and view all announcements.
View: Users/Groups with View permission will be able to view the existing announcements, without the ability to modify them.

Site Administrator Announcements Log

A Site Administrator can access announcements under **Customer Support** node:

- 1) Sign in as Site Administrator.
- 2) In the left Navigator, expand the **Customer Support** node.
- 3) Click the **Announcements** sub-node.

A Site Administrator can create announcements in the same way that a Company Administrator creates announcements.

Announcements created by a Site Administrator are displayed to all users.

Note: "The Make an Announcement for" option is not available for the Site Administrator.

For a Site Administrator, the following columns are displayed in the Announcements log:

- ▶ **Title**
The title from the announcement displayed in the log.
- ▶ **Status**
The current status of the announcement record is displayed in this column.
- ▶ **Last Modified Date**
The date on which the announcement record was created or last modified. This an auto-populated field. The date is displayed in the format selected by the user, in the user **Preferences** window. When a field in an announcement record is modified, and the modification is saved, then the **Last Modified Date** is updated.

Note: The Announcements log does not display the Last Modified By column for Site Administrator.


Working with the License Manager

The **License Manager** controls the number of active users (Standard Users, Portal Users, Collaborator Users, and Earned Value Management Users) allowed in the system based on agreed license terms. The licensing purchased by your organization determines whether EVM is included.

Note: Standard Users refer to both *Company* and *Partner* users.

The license terms (that is, the number of allowed users) used for **License Manager** are maintained by the *Site Administrator*, and cannot be edited by the *Company Administrator*.

To define the threshold for License Manager notifications:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.
- 3) In the upper-right corner, click **Settings**  and select **License Terms**.

The Earned Value Management block in License Manager is seen only when the module is loaded. When licenses are provided for the Earned Value Management module, an additional Earned Value Management check box is available in the Edit User dialog for standard users. Select the check box to designate users as Earned Value Management module users, within license terms.

Your *Company Administrator* can access the **License Manager** to:

- ▶ View the current named users and user record limits.
- ▶ View the usage charts.
- ▶ Print usage reports.

Your *Company Administrator* can set up the **License Manager** to notify the *Company Administrator* (or other designated user) automatically when the number of users is approaching the limit.

If the number of users exceeds the number of available licenses, the system sends notifications to the following:

- ▶ Users specified in the **Unifier Configurator** (WebLogic).
- ▶ Users who have **Notify** permission in the **License Manager**, which was set in **Access Control**.

The **License Manager** counts users with status of **Active** or **On-Hold**. The term "active named user" refers to any user in the system who has an **Active** or an **On-hold** status.

A user with the **Inactive** status is not counted against the license terms, and you can add/import any number of **Inactive** users.

View License Manager Terms and Usage

The License Manager console provides easy access for viewing license terms and usage.

To view the License Manager console:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.


The License Manager console opens in the right pane. Depending on the licensing purchased by your organization, you might see the following:

- ▶ **Standard Users:** This block is always displayed and provides the total license count for *Company* and *Partner* users.
- ▶ **Portal Users:** This block is displayed when the environment has license-count of portal users greater than zero.
- ▶ **Collaborator Users:** This block is displayed when the environment has license count of collaborator users greater than zero.
- ▶ **Earned Value Management Users:** This block is displayed when the module is loaded.

Each block has the following information:

- ▶ **License Terms:** Displays the number of **Active Named Users** — that is, any user with a specific user name and password — in the sponsor company and all partner companies. ("Active" refers to users with a status of Active or On-Hold.)
- ▶ **Current Usage:** Displays the current number of Active Named Users (users with status Active or On Hold for your company and partner companies. Usage refers to user records only, regardless of whether the users are currently signed in. (Current Usage also displays the "as of" date and time of the last update.)

To view the License Terms window:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.
- 3) If you are a Site Administrator and you want to update the license terms, in the upper-right corner, click **Settings**  and select **License Terms**.

When you edit the user count, you enter a combined number for active named users. Depending on the licensing purchased by your organization, the Site Administrator can also edit the Portal Users and Earned Value Management Users counts.

- ▶ The **General** tab displays your company's current license terms. This tab is read-only, and managed by the Site Administrator.
- ▶ The **Notifications** tab lets you schedule regular usage checks and configure thresholds for notifying you when you are getting close to license term limits.


Set Up License Manager Scheduled Runs and Notifications

You can set up the License Manager to notify you when the number of active users in your company or partner companies is approaching the established license limits.

Note: Notifications will only be sent if a scheduled run is set up and enabled. Notifications will only be sent to users or groups who have

been given explicit Modify or Notify Permissions.

To set up notification and threshold limits:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.
The License Manager console appears in the right pane.
- 3) In the upper-right corner, click **Settings**  and select **License Terms**.
- 4) On the **Notifications** dialog box, complete the fields as described in the following table, and click **Apply**.

In this field:	Do this:
Enable Notifications	To enable notifications regarding License Term thresholds, select this check box. These email notifications will be sent to users or groups who explicitly have Modify or Notify permissions. Notifications are sent only after scheduled runs.
Notification Thresholds <ul style="list-style-type: none"> ▶ Standard Users ▶ Portal Users ▶ Collaborator Users ▶ Earned Value Users 	For each type of user, enter the threshold values for active named users in your company and partner company. (The licensing purchased by your organization determines whether EVM is included.) For example, if you want to be notified when the number of active named users in the system reaches 80% of your license terms, enter 80 in the applicable field. Note: The threshold value calculates against the number of allowed active users in the license terms. After the threshold limit has been reached, users will continue to receive notifications during every scheduled run.
Scheduled Runs	To generate notifications, you must schedule usage runs. These runs check for currently active named users in your company and partner company. You will receive notification of these runs only if threshold values have been reached. Choose the frequency: Weekly, End of day: Select the day of the week. Monthly: Select the day of the month.

Print License Manager Information

You can print a copy of the current license manager console view.


To print license manager terms and usage:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.
The License Manager console appears in the right pane.
- 3) In the upper-right corner, click the **Print** icon.
The information appears in a printable HTML format in a separate browser window.

View or Print the License Manager Audit Log

The audit log captures changes made to license terms. You can view the audit log, search for specific changes, print a copy, or save a PDF copy to your local drive.

To view or print the Audit Log:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > License Manager**.
The License Manager console appears in the right pane.
- 3) In the upper-right corner, click **Settings**  and select **Audit Log**.
The Audit Log opens. You can scroll through the list of events, sort the list by clicking the applicable heading, or click the **Find on Page** button to search for a specific entry.
- 4) To view a record's detail, which includes for reference the current time zone of the user viewing the audit log, double-click a listed event.
- 5) To print or save the log, click the **Print** button, and then select the applicable output option after the PDF file is created.

Running System Usage Reports

You can track current system usage using the predefined system usage reports. These reports provide an accurate and efficient way to track and manage licenses and system usage. Usage reports can be run based on company workspace or individual projects/shells, and can track both sponsor company users and partner company users.

The available reports are:

- ▶ Usage Detail By Company
- ▶ Usage Summary By Company
- ▶ Usage Detail By Project/Shell
- ▶ Usage Summary By Project/Shell
- ▶ Usage Detail By Company Workspace
- ▶ Usage Summary By Company Workspace
- ▶ Usage Detail By User
- ▶ Usage Summary By User

- ▶ User Account Details
- ▶ User Account Summary
- ▶ User Session Detail
- ▶ Last Login
- ▶ Current Login
- ▶ Proxy Login

The reports are described in the following sections.

Run a System Usage Report

The following is the general procedure for running a system usage report. The availability for the reports is based on permissions.

To run a system usage report:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **System Information > System Reports**.
- 3) Select a report from the log and click **Open** (or double-click the selected report).
The query window for the report opens. The query window will differ depending on the report selected.
- 4) Use the table below to complete the Query fields.
You can leave the fields blank to return all records without filtering.
- 5) Choose a report format.
 - ▶ **HTML**: Displays the report in the standard format in a browser window. You may print a copy of the report from the browser window. (Click the File menu and select Print or Print Preview.)
 - ▶ **CSV**: Formats the report in an exportable CSV format, usually in Microsoft Excel, or other software application you have set up for this format. You will be prompted to save the file or open it.
 - ▶ **Excel**: The report displays in Microsoft Excel format in the browser window. You can save an Excel formatted copy of the report or print from the window. (Click the File menu and select Save As or Print.)
 - ▶ **PDF**: Opens Adobe Acrobat Reader and displays the report in PDF format. You can save a copy of the report and/or print it from the PDF window. (Click the File menu and select Save or Print.)
 - ▶ **XML**: Generates the output in XML format. Before the results are generated, a confirmation window will open, giving you the option to save the XML file to your local machine (click Save), or display the results in a popup browser window (click **Open**).
- 6) Click **Run** to run the report. The report results are generated in the format you chose.

For this query parameter:	Do this:
Owner Company	(The field displays the owner company.)
Source	Select one of the following options to see where users' time was spent:

For this query parameter:	Do this:
	<p>All: All areas of the system Company Workspace Project/Shell: If you select Project/Shell, the Select button is activated, which lets you pick the project/shell. Other: Other areas of the system that are not part of a project/shell or the company workspace, such as Admin mode, user home page, and so on.</p>
Project/Shell	If you chose Project/Shell or All as the source, the Project/Shell picker is activated. Click Select to select a specific project. If you do not select a project/shell, the default is all projects/shells.
Partner Company	Click Select to select a specific partner, or leave blank to include all partner companies (in addition to the owner company results).
Date Range From	Click the calendar icon to enter a start date for the report. If you leave it blank, the report will start at the company activation date.
Date Range To	Click the calendar icon to enter a start date for the report. If you leave it blank, the report will include results up to the current date.

System Usage Report Types

The following describes details for running the predefined system usage reports.

Usage Detail By Company

This report lets you view usage times across a company and all its partner users grouped by Company /Partner name. This report uses the login time to track usage, and shows usage per day (not per session).

The report results are sorted as follows:

- ▶ Company name in alphabetical order.
- ▶ For each company, the list of user names: first name, last name
- ▶ For each user, lists the source alphabetically
- ▶ When source = Project, then project names are listed alphabetically

Report Query Parameters:

- ▶ Owner Company: Read-only
- ▶ Source: All, Company Workspace, Project/ Shell or Other
- ▶ Project/Shell: Select a Project/Shell or leave blank
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Company Name	The name of the company for which the report is being generated. Depending on filter condition, this report can be generated for a particular company or all.
User Name	The user names that are involved either in projects/shells or directly at Company Level.
User ID	The user IDs that are involved either in projects/shells or directly at Company Level
Source	Company Workspace, Project, Shell, or Other
Name	The names of projects/shells that have users assigned to it either from Company or Partner levels. If user does not participate in any projects/shells the Project/Shell Name and number columns is empty.
Number	The number that corresponds to the Project/Shell Name
Date	Date when user signed in
Usage (Min)	Time taken by User in minutes between sign in and sign out
Usage (Hrs)	Time taken by User in hours between sign in and sign out
Total	Total time taken by all users per company login level and per Company Partner level
Grand Total	Total time taken by all users at a company level as well as Company Partner level

Usage Summary By Company

This report lets you view summarized usage times across the sponsor company and partner companies. These are usage times logged by users, after they sign in, independent of whether they are working for their own company or other companies. The report results are sorted alphabetically by company name.

Report Query Parameters:

- ▶ Source: All, Company Workspace, Project/Shell or Other
- ▶ Project: Select a project or leave blank for all
- ▶ Shell: Select a shell or leave blank for all shells
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Company Name	The company name. Depending on filter condition, this report can be generated for a particular company or all companies.
Usage (Min)	Total Time taken by all Company Users in minutes at "Source" level between sign in and sign out in the specified date ranges
Usage (Hrs)	Total Time taken by all Company Users in hours at "Source" level between sign in and sign out in the specified date ranges

Usage Detail By Project/Shell

The Usage Detail By Project/Shell report shows usage details per projects/shells across a company and its partners grouped by project/shell name. Results are sorted by:

- ▶ Project/Shell names alphabetically for all projects belonging to user company
- ▶ For each project/shell, lists users belonging to owner company first followed by partner company sorted alphabetically
- ▶ Within a company, users are sorted alphabetically by first name, last name

Report Query Parameters:

- ▶ Source: defaults to Project/Shell
- ▶ Project/Shell: Select a Project/Shell or leave blank
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Name	The names of projects/shells that have users assigned to it either from Company or Partner levels.
Number	The corresponding Project/Shell Numbers.
Company Name	Name of the owner company. Depending on filter condition, this report can be generated for a particular Sponsoring company. If no users from current company are assigned to the Project, the row will start with Partner name.
User Name	The user names that are involved in Projects/Shells
User ID	The user ids that are involved either in Projects/Shells
Date	Date when user signed in
Usage (Min)	Time taken by User in minutes between sign in and sign out working on that Project/Shell
Usage (Hrs)	Time taken by User in hours between sign in and sign out working on that Project/Shell
Total	Total time taken by sponsor company or partner company users for a given project/shell
Grand Total	Total time taken by sponsor company or partner company users across Projects/Shells.

Usage Summary By Project/Shell

This report displays summarized usage times per project/shell across a company and partner users grouped by project name.

Report Query Parameters:

- ▶ Source: defaults to Project/Shell
- ▶ Project/Shell: Select a Project/Shell or leave blank for all
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Name	The names of projects/shells that have users assigned to it either from Company or Partner levels
Number	The corresponding Project/Shell Numbers
Company Name	Either the Sponsoring Company Name or Partner Company Name. Distribution across Owner Company and Partner users in a given Project
Usage (Min)	Total Time taken by all Users in minutes between sign in and sign out per Project/Shell
Usage (Hrs)	Total Time taken by all Users in hours between sign in and sign out per Project/Shell
Total	Total time taken by users at a company level as well as Company Partner level for across all company projects/shells

Usage Detail By Company Workspace

This report displays usage times for company and partner users working in the owner company's Company Workspace.

Report Query Parameters:

- ▶ Source: defaults to Company Workspace
- ▶ Project/Shell: Not applicable
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Company Name	The company name. Depending on filter condition this report can be generated for a particular Sponsoring company. If no users from current company are assigned to work in the Company Workspace the row will start with Partner name.
User Name	The user names that are involved at Company Level
User ID	The user ids that are involved at Company Level

This column:	Shows:
Date	Date when user signed in
Usage (Min)	Time taken by User in minutes between sign in and sign out working at the Company Workspace
Usage (Hrs)	Time taken by User in hours between sign in and sign out working at the Company Workspace
Total	Total time taken by users at a company level as well as Company Partner level at Company level
Grand Total	Total time taken by users at a company level as well as Company Partner level across Company and its Partners.

Usage Summary By Company Workspace

This report summarizes usage times for company and partner users working in the owner company's Company Workspace.

Report Query Parameters:

- ▶ Source: defaults to Company Workspace
- ▶ Project/Shell: Not applicable
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
Company	Name of the Sponsoring Company or Partner
Usage (Min)	Total Time taken by all Users in minutes between sign in and sign out in Company Workspace per Company/Partner
Usage (Hrs)	Total Time taken by all Users in hours between sign in and sign out in Company Workspace per Company/Partner
Total	Total time taken by users at the owner company level as well as Company Partner level in the Owner Company Workspace

Usage Detail By User

This report details usage across a company and all its partner users grouped by user name. The results sort by user's first name and last name independent of whether user belongs to the owner company or a partner company.

Report Query Parameters:

- ▶ Source: All, Company Workspace, Project/Shell or Other
- ▶ Project/Shell: Select a Project/Shell or leave blank
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
User Name	The user names that are involved either in Projects or directly at Company Level
User ID	The user ids that are involved either in Projects or directly at Company Level
Company Name	Company Name of the User
Source	Either Company Workspace/Project/ Other
Name	The names of projects/shells that have users assigned to it either from Company or Partner levels. This column is empty if Source is Company Workspace or Other.
Number	The corresponding Project/Shell Numbers. This column is empty if Source is Company Workspace or Other
Date	Date when user signed in
Usage (Min)	Time taken by User in minutes between sign in and sign out
Usage (Hrs)	Time taken by User in hours between sign in and sign out
Total	Total time taken by a particular user at a company level as well as Company Partner level across Source criteria
Grand Total	Total time taken by all users at a co. level as well as Company Partner level across Source criteria

Usage Summary By User

This report displays summarized usage times per user. The report is sorted alphabetically by user first name, last name.

Report Query Parameters:

- ▶ Source: All, Company Workspace, Project/Shell or Other
- ▶ Project/Shell: Select a Project/Shell or leave blank for all
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

This column:	Shows:
User Name	All user names for sponsor company and partner companies
User ID	The corresponding User IDs
Company Name	Each user's company
Usage (Min)	Total Time taken by a user in minutes between sign in and sign out summed up in the date ranges
Usage (Hrs)	Total Time taken by a User in hours between sign in and sign out summed up in the date ranges

User Account Details

This report displays account status details across a company and partners grouped first by Company User Names and then Partner User Names.

Report Query Parameters:

- ▶ Source: All, Company Workspace, or Projects/Shells
- ▶ Source Name: Active if Projects/Shells is the source. Click Select and select the Project/Shell name from the list.
- ▶ Partner Company: Select a partner or leave blank for all

This column:	Shows:
Company Name	The Sponsor Company Name, followed by the Partner Names
User Name	All user Names from a company and partner users assigned to Sponsoring Company Projects
User ID	The corresponding User IDs
Source	The Project/Shell Name the user is a part of
Source Name	The name of the project/shell
Date Added	The date that this user was added to the company. This column is empty for Partner

This column:	Shows:
	users
User Status	The Status of the User at the project/shell level whether (Active/Inactive)
Status Effective Date	The date the Status of the user changed at the project Level.

User Account Summary

This report summarizes account status details across a company and partners grouped first by Company User Names and then Partner User Names.

Report Query Parameters:

Partner Company: Select a partner or leave blank for all

This column:	Shows:
Company Name	The Sponsoring Company or Partner
Company Short Name	The short name for the Company
Total Users	Total number of users at Owner Company/Partner working on Owner Company Workspace or Owner Company Projects
Current Active Users	Total number of active users at Owner Company/Partner working on Owner Company Workspace or Owner Company Projects
Current Inactive Users	Total number of inactive users at Owner Company/Partner working on Owner Company Workspace or Owner Company Projects
Current On Hold Users	Total number of inactive users at Owner Company/Partner working on Owner Company Workspace or Owner Company Projects

User Session Detail

This report displays user signin session details.

Report Query Parameters:

- ▶ Owner Company
- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Date Range From
- ▶ Date Range To

- ▶ Platform
 - ▶ Website
 - ▶ Mobile App
 - ▶ Website & Mobile App

This column:	Shows:
User Name	All user Names from an Owner Company
User ID	The corresponding User IDs
Company Name	The Sponsoring Company or Partner
Login Date	Date user signed in
Logout Date	Date user signed out. (Dates will displayed in Server Time zone)
Session End Type	Timeout or Logout
Usage (Min)	Usage between sign in and sign out in minutes
Usage (Hrs)	Usage between sign in and sign out in Hours
Total	Total time taken

The following shows the columns according to the platform:

This column:	Shows:
Website	As is.
Mobile App	Output for User Session Detail Report: The header of the Report will have the fields of Owner Company, Partner Company, Report Run by, and the date that the report was run on. Columns displayed in the report output: <ul style="list-style-type: none"> ▶ User Name ▶ User ID ▶ User Type ▶ Company Name ▶ Operating System ▶ Device ▶ Login Date ▶ Logout Date ▶ Session End Type ▶ Usage (Min) ▶ Usage (Hrs)

This column:	Shows:
Website & Mobile App	<p>Output for User Session Detail Report: The header of the Report will have the fields of Owner Company, Partner Company, Report Run by, and the date that the report was run on.</p> <p>Columns displayed in the report output:</p> <ul style="list-style-type: none"> ▶ User Name ▶ User ID ▶ User Type ▶ Company Name ▶ Operating System ▶ Device ▶ Login Date ▶ Logout Date ▶ Session End Type ▶ Usage (Min) ▶ Usage (Hrs)

About Platform

Unifier can be accessed through various platforms (website, mobile app, or both), and you have the option to track the users when they sign in through these platforms. This ensures that you can capture information such as number of sign-ins, device type, and so forth.

When you select the platform, the report output, will have the following columns:

This column:	Shows:
Operating System	The version of the device operating system.
Device	The device model. For example, Apple iPhone 7 plus.

The following shows the columns according to the platform:

This column:	Shows:
Website	As is.
Mobile App	<p>Output for Last Login Report: The header of the Report will have the fields of Owner Company, Partner Company, Report Run by, and the date that the report was run on.</p> <p>Columns displayed in the report output:</p>

This column:	Shows:
	<ul style="list-style-type: none"> ▶ User Name ▶ User ID ▶ User Type ▶ Company Name ▶ User Status ▶ Operating System ▶ Device ▶ Last Login Date ▶ Days Since Last Login
Website & Mobile App	<p>Output for Last Login Report: The header of the Report will have the fields of Owner Company, Partner Company, Report Run by, and the date that the report was run on.</p> <p>Columns displayed in the report output:</p> <ul style="list-style-type: none"> ▶ User Name ▶ User ID ▶ User Type ▶ Company Name ▶ User Status ▶ Operating System ▶ Device ▶ Last Login Date ▶ Days Since Last Login

The information above applies to the following reports (**Company Workspace** tab > **Admin** mode > **System Reports**):

- ▶ User Session Detail
- ▶ Last Login
- ▶ Current Login

The available report formats are:

- ▶ HTML
- ▶ CSV
- ▶ Excel
- ▶ PDF
- ▶ XML

Last Login

This report displays last signin details for a user. It lists the users that have signed in, not all user accounts. If a user has never signed in, that user will not be listed on the Last Login Report.

Report Query Parameters:

- ▶ Partner Company: Select a partner or leave blank for all
- ▶ Platform: Select a platform to monitor.

This column:	Shows:
User Name	All user Names from an Owner Company
User ID	The corresponding User IDs
Company Name	The Sponsoring Company or Partner
User Status	The status of the user
Last Login Date	Date when Company User last signed in. For a partner user, this date should be the last date the user signed in to Partner Company Workspace.
Days Since Last Login	Number of days since the user last signed in. Calculated as difference between last sign in date and the date on which the report is run.

Current Login

The Current Login Report displays currently logged in users.

Report Query Parameters:

- ▶ Source: All, Company Workspace, or Projects
- ▶ Source Name: Active if Projects is the source. Click Select and select the Project name from the list.
- ▶ Partner Company: Select a partner or leave blank for all.
- ▶ Platform: Select a platform to monitor.

This column:	Shows:
Company	Sponsor company
User Name	All user names from an Owner Company
User ID	The corresponding User IDs
Source	The source
Source Name	The source name
Source Number	Corresponding number
Login Time	Login time for the current session
Remote Address	The IP address of the computer from which the user is logged on

The following shows the columns according to the platform:

This column:	Shows:
Website	As is.
Mobile App	<p>Output for Current Login Report: The header of the Report will have the fields of Owner Company, Partner Company, Source, Source Name, Report Run by, and the date that the report was run on.</p> <p>Columns displayed in the report output:</p> <ul style="list-style-type: none"> ▶ Company Name ▶ User Name ▶ User ID ▶ User Type ▶ Operating System ▶ Device ▶ Source ▶ Source Number ▶ Login Time ▶ Remote Address
Website & Mobile App	<p>Output for Current Login Report: The header of the Report will have the fields of Owner Company, Partner Company, Source, Source Name, Report Run by, and the date that the report was run on.</p> <p>Columns displayed in the report output:</p> <ul style="list-style-type: none"> ▶ Company Name ▶ User Name ▶ User ID ▶ User Type ▶ Platform ▶ Operating System ▶ Device ▶ Source ▶ Source Number ▶ Login Time ▶ Remote Address

Proxy Login

This report displays user signin proxy details.

Report Query Parameters:

- ▶ Partner Company: Select a partner or leave blank for all partners
- ▶ Date Range From

This column:	Shows:
First Name	The Proxy first name
Last Name	The Proxy last name
Login User Name	The user who logged in
Company Short Name	The Company name of the Proxy user
Proxy User Name	Then name of the Proxy
Login Date	The date the user logged in

Setting Permissions for Inbox

To set **Inbox** permissions for Company Workspace and project/shell instances:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) On the right pane, expand **User Mode Access**.
- 4) Expand **Projects/Shells**, expand **Mailbox**, and then expand **Project Mailbox**.
- 5) Click **Inbox** to open the **Permissions Setting for: Inbox** window.
- 6) Click **Add** or **Modify** and grant the following permissions:
 - ▶ Delete: To delete messages.
 - ▶ Reply: To reply to messages.
 - ▶ View: To view messages.
 - ▶ Create/Manage Folders: To create, rename, and move folders under **Inbox**.
- 7) Click **Apply** when finished.

Note: You cannot grant permissions at **Project Mailbox** level. All **Project Mailbox** permissions must be granted at **Inbox** level.

For Permission Templates:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) On the right pane, expand **Administration Mode Access** and then expand **Standards & Libraries**.
- 4) Click **Permission Templates** to open the **Permission Settings for: Permission Templates** window.
- 5) Click **New**.
- 6) Click **Permissions**.
- 7) Go to **User Mode Access** and expand it.

- 8) Click **Mailbox** to expand it.
- 9) Click **Project Mailbox** to expand it.

Setting Permissions for Unpublished Attachments

Whenever a mail is received through the Project Mailbox, the attachment associated with the email will be captured within the Document Manager (DM). A new folder will be available under Project Mailbox node in which all unpublished mail attachments will be available for publishing to the project/shell DM.

To set **Unpublished Attachments** permissions for project/shell instances:

- 1) Go to the project/shell tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Access Control**.
- 3) On the right pane, expand **User Mode Access**.
- 4) Expand **Mailbox** and then expand **Project Mailbox**.
- 5) Click **Unpublished Attachments** to open the **Permission Settings for: Unpublished Attachments** window.
- 6) Click **Add** or **Modify** and grant the following permissions:
 - ▶ Publish: To allow publishing into the DM.
 - ▶ Download
 - ▶ Open
 - ▶ View
- 7) Click **Apply** when finished.

Task Reassignment (Company and Project)

When a user with assigned tasks is removed from a project, you (Company Administrator, Project Administrator, or Administrator user) can reassign the removed user's tasks to an active user.

Note: In this scenario, you can only reassign tasks that have not been started, or tasks that are in progress.

In the case of a dynamic assignment (when a workflow is routed back to the previous step, and the task on that step was assigned to the removed user), the system lets you send the task to the new active user. This also applies in a situation in which a record must be sent back for review.

To reassign a task from a removed user to an active user:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Click to expand **User Administration**.
- 3) Click to expand **Task Reassignment**.

There are two sub-nodes under the **Task Reassignment** node:

- ▶ **Active User Tasks**

▶ Inactive User Tasks

The following explains each sub-node in detail.

Active User Tasks


The **Active User Tasks** log will house the following tasks:



- ▶ Tasks for all active users existing at the company level.
 - ▶ **Company level:** This includes users from both owner and all partner companies.
 - ▶ **Project level:** This includes users from both owner and the member companies.
- ▶ Tasks where the active user is an assignee and the record has not yet reached the terminal step.

This means that the previous user would no longer be seeing the task in the log but because of a previous action taken by the previous user the task would still appear in the log. The reasons for this appearing in the log are as follows:

- ▶ To account for Dynamic step assignment. For example, the Workflow setup might have "Match <step>" in a subsequent step.
- ▶ To account for step revisits.

Active User Tasks log (toolbar options)

Option	Description
Reassign	To open the Select New Assignee window and select the following information about the assignee: <ul style="list-style-type: none"> ▶ Name ▶ Company Select one or more tasks and click Reassign to open the user picker-window.
View	This option lets you view the following pre-defined views: <ul style="list-style-type: none"> ▶ All Tasks ▶ Group by Assignee ▶ Group by Origin ▶ Group by Business Process ▶ Reassignment History (See the "Reassignment History" section below for important details) ▶ Create New View ▶ Manage Views The Create New View option can be used to define user specific views.
Refresh 	To refresh the items listed in the log.

Option	Description
Print 	To print the items listed in the log, based on the current view of the log.
Edit View 	To view and edit the settings of items listed in the log. Use the View Name field to enter a name for your new view. Use the Columns tab to: <ul style="list-style-type: none"> ▶ Determine which columns to display: Available Columns ▶ Select the columns: Selected Columns ▶ Lock the columns in place: Lock after selected Column Use the Filters tab to: <ul style="list-style-type: none"> ▶ Determine the field for your filter: Field ▶ Indicate the operator for your filter: Operator ▶ Include any values: Value ▶ Determine the number of records that you want to be displayed: Number of Records Use the Group By tab to: <ul style="list-style-type: none"> ▶ Group the list based on the options available from the drop-down list. ▶ Adjust the order of your list: Order Use the Sort By tab to sort items according to: <ul style="list-style-type: none"> ▶ Previous assignee ▶ New assignee ▶ Origin ▶ Business Process ▶ Record Number ▶ Reassigned on Click Cancel to discard your changes and return to the log. Click Apply to apply your changes to the view. Click Save As to save an existing view with another name.
Search / Find on Page	To filter the log for specific results.

Active User Tasks log (columns)

Column Heading	Description
Reassignment Status ☒	The (X symbol) ☒ signifies that the task cannot be reassigned.
Assignee	Name of the inactive user assignee.
Company	Company name of the inactive user.
Origin	The source. The source can be project, shell, or company tab name.
Business Process	Name of the business process.
Record Number	The record number
Title	The title.
Record Due	The due date for the record.
Creation Date	The creation date for the task.
Workflow Name	The workflow name.

Inactive User Tasks

The **Inactive User Tasks** log lists records that are in progress (workflow has not yet been completed) for inactive users.

For the inactive users at the company, the **Inactive User Tasks** log lists all the tasks for inactive users.

- ▶ At the Company level, the tasks included may belong to owner company users or all partner company users.
- ▶ At the Project level, the tasks included may belong to owner company users or member company users.

Note: A Member Company is a Partner Company. When a Partner Company is added to a project/shell, the Partner Company becomes a Member Company.

The **Inactive User Tasks** log also lists the records that an inactive user is an assignee and the record has not yet reached the terminal step. This means that the inactive user would no longer be seeing the task in the log but because of a previous action taken by the inactive user the task would still appear in the log. This display allows to account for both Dynamic step assignment and step revisits for in-flight records.

Example

Workflow setup might have "Match <step>" in a subsequent step.

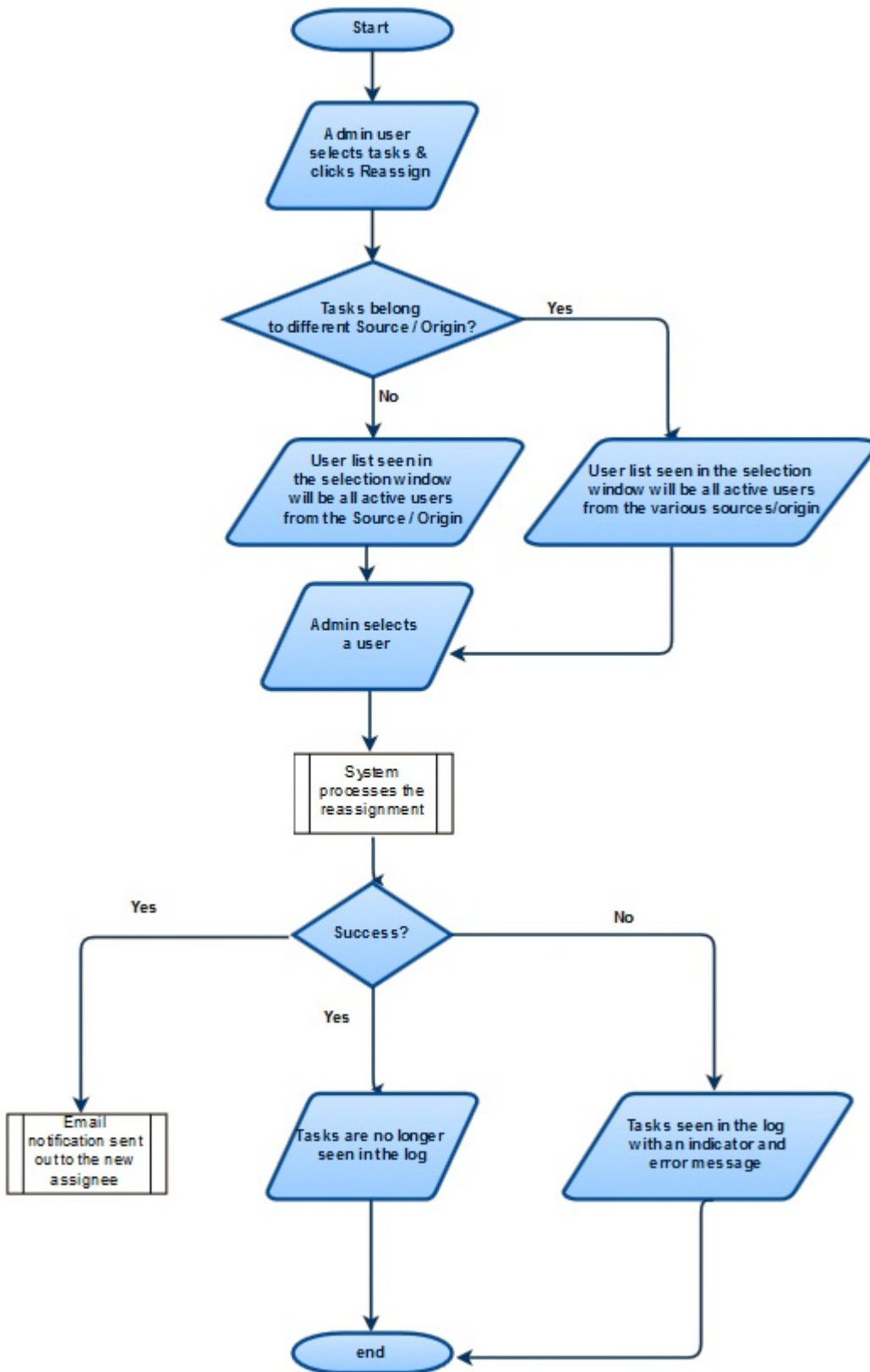
The Task Reassignment log has the following columns:

Note: The following information applies to the company level and project/shell level unless it is noted otherwise.

Column Heading	Description
Reassignment Status ☒	The (X symbol) ☒ signifies that the task cannot be reassigned.
Assignee	Name of the inactive user assignee.
Company	Company name of the inactive user.
Origin	The source. The source can be project, shell, or company tab name.
Business Process	Name of the business process.
Record Number	The record number
Title	The title.
Record Due	The due date for the record.
Creation Date	The creation date for the task.
Workflow Name	The workflow name.

Reassigning Tasks (Workflow)

The following chart describes the workflow for reassigning tasks. The following topics explain each step in detail.



Reassigning Tasks (Scenarios)

In the following cases, the company administrator is a user who has permissions to reassign the tasks.

Case 1: Selected new assignee is a CC user

- 1) Business Process record R1 currently has been assigned to user A and has been CC'd to user B
- 2) User A has been inactivated
- 3) Company Administrator has now reassigned this task to user B
- 4) User B will receive the task reassignment notification in addition to seeing the task in the Tasks log.
- 5) In addition to this, the notification for this task which the User B had received because of being a CC'd user, will be removed from the Notifications log.

Case 2: Selected new assignee is not in the Workflow (WF) setup

In the event that the selected assignee is not in the WF setup, the user will still get the reassigned task. This means that the task will be seen in the Tasks log.

Note: By means of Tasks reassignment, the system will not add the user to the Workflow setup. This action has to be performed by the administrator who is setting up the workflow setup. Similarly, the user will not have navigation level permissions to the Business Process log that the task belongs to. This action again has to be performed by the administrator.

Case 3: Selected new assignee had previously declined the task

If the selected new assignee had previously declined the task, then post reassignment, the task will be seen in the Tasks log.

Assumption: The workflow setup allows declining of the task.

Case 4: Single Completion policy - Non participating assignee has been inactivated

A non-participating assignee is one who has not acted on a task. When such a user is inactivated, the in-flight records which had this user in one of the steps will not be seen in the Tasks reassignment log.

Case 5: Completion Policy - All Consensus

- 1) Business Process record R1 currently has been assigned to users A, B, and C
- 2) User A accepts the Task routes the record to step A
- 3) User B declines the task
- 4) User C has been inactivated
- 5) Company Administrator reassigns the Task of User C from the Tasks Reassignment log to user D
- 6) User D accepts the Task and routes the record to step B

- 7) The record will get routed to the resolving action because the users have taken different actions

Case 6: Completion Policy - All Majority

- 1) Business Process record R1, currently has been assigned to users A, B, and C
- 2) User A accepts the Task and routes the record to step A
- 3) User B accepts the Task and routes the record to step B
- 4) User C has been inactivated
- 5) Company Administrator reassigns the Task of user C to user D
- 6) User D accepts the task and routes the record to step B
- 7) The record will get routed to step B because the majority of the users took the action of routing it to step B

Views

You can use the views to sort or group tasks based on various attributes. The following displays the views and their definitions:

View	Definition
All Tasks	Columns are in the following order. <ul style="list-style-type: none"> ▶ Assignee ▶ Company ▶ Origin ▶ Business Process ▶ Record Number ▶ Title ▶ Record Due ▶ Creation Date ▶ Workflow Name Other definitions are the same as in the Tasks log.
Group by Assignee	The Group By element will be Assignee . Columns are in the following order. <ul style="list-style-type: none"> ▶ Assignee ▶ Company ▶ Origin ▶ Business Process ▶ Record Number ▶ Title ▶ Record Due ▶ Creation Date ▶ Workflow Name

View	Definition
	Other view attributes are the same as in the All Tasks.
Group by Origin	<p>The Group By element will be Origin. Columns are in the following order.</p> <ul style="list-style-type: none"> ▶ Assignee ▶ Company ▶ Origin ▶ Business Process ▶ Record Number ▶ Title ▶ Received ▶ Creation Date ▶ Workflow Name <p>Other view attributes are the same as in the Group by Origin in the Tasks log.</p>
Group by Business Process	<p>The Group By element will be Business Process. Columns are in the following order.</p> <ul style="list-style-type: none"> ▶ Assignee ▶ Company ▶ Origin ▶ Business Process ▶ Record Number ▶ Title ▶ Received ▶ Creation Date ▶ Workflow Name <p>Other view attributes are the same as in the Group by Business Process in the Tasks log.</p>
Reassignment History - log	<p>It is important to maintain the reassignment history of tasks. The view Reassignment History will enable administrators to view all the past reassignments. When this view is active: Toolbar option of Reassign will not be seen. All other toolbar options will remain as is.</p> <p>Log columns will be Previous assignee, New assignee, Origin, Business Process,</p>

View	Definition
	<p>Record Number and Reassigned on. The date column of Reassigned on will retain user preferences.</p>
<p>Reassignment History - View settings</p>	<p>Columns</p> <ul style="list-style-type: none"> Previous assignee New assignee Origin Business Process Record Number Reassigned on <p>Filter fields</p> <ul style="list-style-type: none"> Previous assignee New assignee Origin Business Process Record Number Reassigned on <p>The operators available will be dependent on the data type. In addition to the filter fields, the view definition will also have Number of Records.</p> <p>Group By</p> <ul style="list-style-type: none"> String fields <p>View buttons</p> <p>The view settings will only have Cancel and Apply. There can be only one view of this type and this is already provided by the system. Any changes made to the view cannot be saved.</p>

Workflow of Reassigning Tasks (Company)

- ▶ The administrator user selects tasks.
Tasks may or may not be from the same Origin. For example, the Tasks may belong to two different projects P1 and P2.
- ▶ The administrator user clicks **Reassign**.
- ▶ The user picker window opens that displays the list of users as follows:
 - ▶ All active owner company users from P1 and P2.

- ▶ All active member company users from P1 and P2.
- ▶ Users belonging to either of the two projects.
- ▶ The administrator user selects a new assignee.
- ▶ The system assigns all selected tasks to the new assignee.
- ▶ If user exists in the project, the task will get reassigned and an email notification will be sent to the new assignee. For more information, see ***New Assignee Email Notifications***.
- ▶ If user does not exist in the project, the task will not get reassigned and will continue to remain in the log.

Workflow of Reassigning Tasks (Project)

- ▶ The administrator user selects tasks.
Tasks belong to the same project.
- ▶ The administrator user clicks **Reassign**.
- ▶ The user picker window opens that displays the list of users as follows:
 - ▶ All active owner company users.
 - ▶ All active member company users.
- ▶ The administrator user selects a new assignee.
- ▶ The system assigns all selected tasks to the new assignee.
- ▶ If reassignment is successful, the task will get reassigned and an email notification will be sent to the new assignee. For more information, see ***New Assignee Email Notifications***.
- ▶ If reassignment is no successful, the task will not get reassigned and will continue to remain in the log.

Reassigning Tasks Access Control

Access to the **Tasks Reassignment** node is by permissions. To grant permission:

- 1) Go to the **Access Control** node.
- 2) Click **Administration Mode Access**.
- 3) Click **User Administration**.
- 4) Click **Tasks Reassignments**.
- 5) Select users, or groups, and set permissions.

The "Enable" permission enables the user to:

- ▶ View the task
- ▶ Reassign the task

You can assign the permissions to either an individual user or a group.

The permission changes are applicable to all modules, where the permissions can be set, for example:

- ▶ User > Permissions
- ▶ Group > Permissions
- ▶ Permission template

New Assignee Email Notifications

The Subject line of the new assignee email notification states how many tasks have been assigned and by whom.

The body of the new assignee email notification contains the following information:

- ▶ Project name
- ▶ Record number of the business process
- ▶ Title of the business process
- ▶ Unifier login link


Viewing and Managing Cash Flow Jobs and Auto Snapshots

Because your organization might have multiple cash flow jobs and automatic snapshots scheduled to run for a multitude of projects, you can use the Cash Flow Jobs functional node to manage the jobs and auto-snapshots and their impact on system performance. The Cash Flow Jobs log provides an overview of all the projects and their status. For example, you might disable the settings for any project whose Configuration Status is On-Hold or Inactive. Or perhaps your organization has 10,000 projects managed through the system. Of those, 4,000 have reached a completed status but the cash flow jobs are still running every day because the end date was not added or updated in the refresh schedule. Instead of updating each of the 4,000 projects separately to disable the refresh job, you can use the Cash Flow Jobs log to disable multiple jobs simultaneously.

Using the Cash Flow Jobs log, you can sort the information displayed by clicking a column header, such as Project Status or Auto Refresh. You can also limit the information displayed by using the Search option. Before or after you filter what is displayed, you can print the log or export it to a Microsoft Excel or comma-separated value (CSV) file.

You must have the **Modify** permission to use this page to disable the Refresh Schedule and Auto Snapshot settings for any project managed within your organization. Go to **Company Workspace > Admin mode > User Administration > Access Control > Administration Mode Access > System Information > Cash Flow Jobs** to set the permissions.

To filter the list of items displayed:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **System Information > Cash Flow Jobs**.
The Cash Flow Jobs log is displayed.
- 3) In the toolbar, click **Search** .
- 4) In the **Search** tab, use the various options to filter what is displayed in the log, and then click **Apply**.
The system displays all the items that met the search criteria you entered.

To disable the refresh or snapshot or both:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **System Information > Cash Flow Jobs**.
The Cash Flow Jobs log is displayed.
- 3) If applicable, sort or filter the list of jobs and snapshots.
- 4) If you only want to disable the Refresh Schedule or Auto Snapshot for specific jobs and there are additional jobs displayed in the log, select the applicable jobs.
- 5) In the toolbar, click **Actions** and select one of the following:
 - ▶ **Disable Auto Refresh > Selected Cash Flows:** To disable the Refresh Schedule for the selected items, select this option.

- ▶ **Disable Auto Refresh > Filtered Cash Flows:** To disable the Refresh Schedule for all the items displayed after the log is filtered, select this option.
 - ▶ **Disable Auto Snapshot > Selected Cash Flows:** To disable the Auto Snapshot for the selected items, select this option.
 - ▶ **Disable Auto Snapshot > Filtered Cash Flows:** To disable the Auto Snapshot for all the items displayed after the log is filtered, select this option.
 - ▶ **Disable Auto Refresh and Auto Snapshot > Selected Cash Flows:** To disable the Refresh Schedule *and* Auto Snapshot for the selected items, select this option.
 - ▶ **Disable Auto Refresh and Auto Snapshot > Filtered Cash Flows:** To disable the Refresh Schedule *and* Auto Snapshot for all the items displayed after the log is filtered, select this option.
- 6) When the confirmation message appears, click **Yes** to continue or **No** to cancel.
After the update is processed, the Audit Log for the applicable cash flow is also updated to reflect the change.

To print or export the list of items displayed:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **System Information > Cash Flow Jobs**.
The Cash Flow Jobs log is displayed.
- 3) If applicable, sort or filter the list of jobs and snapshots.
- 4) In the toolbar, click **Print** and select one of the following:
 - ▶ **Print:** The system generates a PDF version of the log, which you can save or print.
 - ▶ **Export To CSV:** The system generates and downloads a CSV version of the log.
 - ▶ **Export To Excel:** The system generates and downloads a Microsoft Excel version of the log.

Activity Manager

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

Note: Unifier also 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**.

Activity Manager Module

To access the **Activity Manager** module, go to your project/shell in User mode and click **Activity Manager** in the left Navigator.

For details about the Activity Manager, Rate Sheet, and Master Rate Sheet, refer to the *Unifier Managers User Guide*.

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Activity Manager Permissions

You can use the following options to grant permission to the **Activity Sheet** under the **Activity Manager** node.

To set permission levels for the Activity Sheet:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, select **User Mode Access > Projects/Shells > Activity Manager (or Schedule Manager if you have access to it) > Activity Sheet**.
- 4) Grant any of the following available permissions:
 - ▶ **Get Data:** If enabled, the user can use **Get Data** for the system **Activity Sheet**, which will update the system **Activity Sheet** from P6 or Oracle Primavera Cloud.
When enabled, the **View** permission will be enabled, automatically. If you deselect the **View** permission, Unifier deselects the **Get Data** permission. You cannot assign the **Get Data** permission without the **View** permission, but you can assign the **View** permission without the **Get Data** permission.
 - ▶ **Send Data**
 - ▶ **View:** If enabled, the user can view the **Activity Sheet** node along with the activity sheets present in that node (if any).

To set permission levels for the Rate Sheet:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, select **User Mode Access > Projects/Shells > Activity Manager > Rate Sheet**.
- 4) Grant any of the following available permissions:
 - ▶ **Full Access**
 - ▶ **Create:** If enabled, the user can create a **Rate Sheet**.
 - ▶ **View:** If enabled, the user can view the **Rate Sheet** node at Company Workspace along with the **Master Rate Sheet** present in that node (if any).

To set permission levels by using Permission Templates:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Permission Templates**.
- 3) Open the applicable template, and click the **Permissions** tab.
- 4) In the **Modules For** section, scroll to **User Mode Access > Projects/Shells > Activity Manager**.
- 5) Under Activity Manager, assign the applicable permissions for **Activity Sheet** and **Rate Sheet** as described earlier.

Master Rate Sheet Permissions

You can use the **Create** and **View** options to grant permission to the **Master Rate Sheet** under the **Activity Manager** node.

To set permission levels for the sheet:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, select **User Mode Access > Company Workspace > Master Rate Sheet**.
- 4) Grant any of the following available permissions:
 - ▶ **Create:** The **Create** option will be seen at the same level as **Get Data**. The **Get Data** option in the Master Rate Sheet log is enabled based on the **Get Data** permission. If enabled, the user can create a Master Rate Sheet by using the **Create** option in the log. When **Create** permission is granted, if a Master Rate Sheet exists (defined through integration), the user can add resources and roles in the existing Master Rate Sheet.
 - ▶ **View:** If enabled, the user can view the resources and roles, both the ones that have been created through integration and the ones created manually.

About Consent Notices (Administrator)

Consent notices inform users how personal information (PI) is collected, processed, stored, and transmitted along with details related to applicable regulations and policies. Consent notices also alert users that the action they are taking may risk exposing PI. Unifier helps you to ensure that you have requested the appropriate consent to collect, process, store, and transmit the PI your organization holds as part of Unifier data. Consent notices are switched *off* by default in Unifier.

Consent notices should:

- ▶ be written in clear language which is easy to understand.
- ▶ provide the right level of detail.
- ▶ identify the purpose and legal basis for your collection, processing, storage, and transmission of PI.
- ▶ identify whether data will be transferred to named third parties.
- ▶ identify PI categories and list the data which will be collected, processed, stored, and transmitted.

Note: If an administrator provides consent on behalf of other users, it is the administrator's responsibility to ensure the consent has been provided by the users through other means.

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About Personal Information

Personal information (PI) is any piece of data which can be used on its own or with other information to identify, contact, or locate an individual or identify an individual in context. This information is not limited to a person's name, address, and contact details. For example, a person's IP address, phone IMEI number, gender, and location at a particular time could all be personal information. Depending on local data protection laws, organizations may be responsible for ensuring the privacy of PI wherever it is stored, including in backups, locally stored downloads, and data stored in development environments.

In Unifier, the custom data, which might include personal information, is also stored when a customer:

- ▶ Configures the system to store, or collect, data in a business process form (BP form).
- ▶ Configures the system to store, or collect, data in other modules.
- ▶ Adds additional fields to the forms that collects the users' information, during the user creation process.

- ▶ Uploads documents that contain user information.

Personal information may be visible in multiple areas of the system, including but not limited to:

- ▶ User administration
- ▶ Records in various business processes
- ▶ Tasks
- ▶ Documents
- ▶ Reports
- ▶ Dashboards

Personal information may be at risk of exposure in multiple areas of the system, including but not limited to:

- ▶ Dashboard or custom prints
- ▶ Reports
- ▶ Documents
- ▶ Web Services
- ▶ Unifier Mobile

Cookies in the system

When using Unifier, the server may generate cookies and send them to the user's browser. The user's machine stores the cookies, either temporarily by the browser, or permanently until they expire or are removed manually.

Each user that signs in to Unifier web will see a notification banner (Cookies in Unifier) that notifies the user that Unifier uses cookies. This banner has a link to the Unifier cookie policy which explains what information is being tracked by way of cookies. The user must click **Got It** to access the rest of the Unifier application.

Oracle might use cookies for authentication, session management, remembering application behavior preferences and performance characteristics, and to provide documentation support. Also, Oracle might use cookies to remember your log-in details, collect statistics to optimize site functionality, and deliver marketing based on your interests.

Permission Control for Consent Notice

You can assign **Consent Notice** permissions in the following permissions-related modules:

Access Control

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) In the pane on the right, expand **Administration Mode Access**, and then expand **General Administration**.
- 4) Expand **Consent Notice**.

User Administration

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) In the pane on the right, expand **Administration Mode Access**, and then expand **User Administration**.
- 4) Assign Consent Notice permissions through the **Company Users, Partner Users, or Groups** sub-nodes.

Standards & Libraries

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Standards & Libraries > Permission Templates**.
- 3) In the pane on the right, use **Permission Templates** to assign Consent Notice permissions.

Permissions can be given by anyone who has access to the nodes.

Users who have the **Modify** permission will be able to modify the setup and other details related to **Consent Notice**, for either user or bidder consent.

If a user has only the **View** permission for the **Consent Notice** node, the user will have only permission to view the setup and will not be able to make any edits to the consent notice setup or other details.

Your Responsibilities

Information security and privacy laws can carry heavy penalties and fines for organizations which do not adequately protect PI they gather and store. If these laws apply to your organization, it is your responsibility to configure consent notices before they are required. You should work with your data security and legal teams to determine the wording of the consent notices you will configure in Unifier.

If a consent notice is declined, it is your responsibility to take any necessary action. For example, you may be required to ensure that data is not stored or shared.

Personal Information (PI) Data in the system

PI may be visible in multiple areas of Unifier, including but not limited to user administration, business process workflows, assignments, work products and documents, reports, user defined fields, codes, calendars, project websites, and timesheets.

PI may be at risk of exposure in multiple areas of Unifier, including but not limited to business process workflows, assignments, work products and documents, reports, user defined fields, codes, calendars, project websites, and timesheets.

As part of Unifier Cloud Services, you might be using an identity domain to manage your user access and entitlements across multiple cloud and on-premises applications and services. If you are using or accessing an identity domain, you are responsible for deleting your details and data from the identity domain. You are responsible for retrieving your content in the identity domain during your applicable services period.

Configuring Consent Notices

To configure Consent Notices for the system:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **General Administration** grouping node and then expand **Consent Notice**.

The **Consent Notice** node can be seen by the site administrator (on-premises customers only and in the system admin mode) and by the default company contact (in the respective company).

You can independently manage the **Consent Notice** in all Unifier environments (Development, Test, and Production).

You can see the status of consent acceptance for users. You can also reset consent acceptance for all users if there is a need to regain consent after a consent notice has changed.

The **Consent Notice** node has the following sub-nodes:

▶ **User Consent**

Use this sub-node to set up consent notice for the web, mobile, self-service, portal, and Unifier /m sign-ins.

▶ **Consent Status**

Use this sub-node to audit and track the users who have accepted the terms.

▶ **Bidder Consent**

Use this sub-node to set up consent notice for the bidder portal sign-in.

▶ **Consent Status**

Use this sub-node to audit and track the bidders who have accepted the terms.

If you enable consent notices, you must enter consent notice text. Work with your data security and legal teams to determine the wording of the consent notices. If no content is detected, the system displays the message: *The default consent notice is required if the consent notice option is enabled.*

Configuring Consent Notices for User Signing In through Web

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > Consent Notice > User Consent**.

The **Setup** window, which opens by default, has the following options:

Enable Consent Notice: This option is selected by default. You can use this option to enable the consent notice for signing in to the system through the web, self-service portal, and mobile device.

Default Consent Notice: This option lets you enter the default consent notice for the environment when the consent notice is enabled. You should work with your data security and legal teams to determine the wording of the consent notices you will configure in Unifier. You can enter the consent message (text) into the system directly as formatted text or HTML text.

Note: Oracle does not recommend direct copy-paste of text from external sources in the provided editor for consent notices because direct copy-paste from external sources impacts the behavior of text seen for users. Copy-paste of text from a Word document or a pdf file is supported in the provided editor.

If you click **Save** without entering the consent notice, the system displays the message: *The default consent notice is required if the consent notice option is enabled.*

Note: When you set the consent notice in this node, the consent notice will be applicable to both the web and mobile sign-ins.

Send notifications when users reject the consent notice: This option lets you set users or groups to be notified when a user rejects the consent notice.

Cancel: Lets you undo all the changes that you have made across all tabs. Users who have View permission will not see this option.

Save: Lets you save all the changes that you have made across all tabs. Users who have View permission will not see this option.

Preview: Lets you preview the content of the consent agreement.

Other tabs are language-specific consent notices that are supported in the system. If you enter content for a specific language then the language specific consent notice will be displayed to the users based on the user preferences for language. For example, when the language preference (Preferences) is set to Dutch, and the Dutch consent notice is not entered, the user will see the default consent notice content when signing in (web or mobile). The user will see the Dutch consent notice only when a Dutch consent is entered.

Auditing Consent Notices for Users Signing In through Web

To audit consent status for users signing in through web:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **General Administration > Consent Status** to display the log.
- 3) Review the status for each user.

You can use the **Consent Status** sub-node to track user acceptance.

The system tracks users based on the following responses to the consent notice:

- ▶ Accepted
- ▶ Rejected
- ▶ Not Responded

By default, all users are tracked as *Not Responded*. When users sign in through web/mobile and accept or reject the consent notice, the system tracks their responses and assigns a status accordingly.

If you disable the consent notice option after it was enabled in an environment, the system will not reset the tracking status for web/mobile consent and tracking statuses will remain as they were.

The following toolbar options are displayed on the **Consent Status** log:

View: Lets you see the following out-of-the-box (OOTB) views:

- ▶ All
- ▶ Group by Consent Status

When the view is changed to Group by Consent Status, by default the groups will be collapsed and an additional toolbar option of Expand/collapse will be displayed.

Search: Lets you find information about any user or group by way of:

- ▶ Name
- ▶ Email Address
- ▶ Title
- ▶ Company
- ▶ Status
- ▶ Record Number

Find on page: Lets you filter the contents of the log.

Print: Lets you print the contents of the log.

Reset Accepted Consent: This option is available when the consent notice option is enabled. This option lets you reset the **Accepted** consent status to **Not Responded** when there are changes in the agreement. Users who have View permission will not see this option.

The following columns are displayed on the **Consent Status** log:

- ▶ Name
- ▶ Email Address
- ▶ Title
- ▶ Company
- ▶ Record Number
- ▶ Status
- ▶ Time

Configuring Consent Notices for Bidders Signing In through Web

The site administrator (in the system admin mode) and the default company contact (in the respective company) can enable the consent notice for bidders by using the **Bidder Consent** node. If you enable consent notices, you must enter consent notice text. If no content is detected, the system displays the message: *The default consent notice is required if the consent notice option is enabled.*

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, click **General Administration > Consent Notice > Bidder Consent** to display the log.

The **Setup** tab, which is open by default, has the following options:

Enable Consent Notice

This option is selected by default. You can use this option to enable the consent notice for signing in through the Bidder portal.

Default Consent Notice

This option lets you enter the default consent notice for the environment when the consent notice is enabled. You can enter the consent message (text) into the system directly, as formatted text or HTML text. This is a required field and you must enter the consent notice. If you click **Save** without entering the consent notice, the system displays the message: The default consent notice is required if the consent notice option is enabled.

Note: When you set the consent notice it will be applicable to both the web and mobile sign-ins.

Send notifications when users reject the consent notice

This option is selected by default. This option lets you set users or groups to be notified when a user rejects the consent notice.

Cancel

Lets you undo all the changes that you have made across all tabs. Users who have View permission will not see this option.

Save

Lets you save all the changes that you have made across all tabs. Users who have View permission will not see this option.

Preview

Lets you preview the content of the consent agreement.

Other tabs are language specific consent notices that are supported in the system. If you enter content for a specific language, then the language specific consent notice will be displayed to the users, based on the user preferences for language. For example, when the language preference (Preferences) is set to Dutch, and the Dutch consent notice is not entered, the user will see the default consent notice content when signing in (web or mobile). The user will see the Dutch consent notice only when a Dutch consent is entered.

Auditing Consent Notices for Bidders Signing In through Web

To audit consent status for bidders signing in through web:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Click the **General Administration** grouping node to expand it.
- 3) Click the **Consent Status** sub-node to display the log.
- 4) Review the status for each user.

You can use the **Consent Status** sub-node to track the bidders who have accepted the terms through signing in by way of bidder sign-in.

The system tracks bidders based on the following responses to the consent notice:

- ▶ Accepted
- ▶ Rejected
- ▶ Not Responded

By default, all the bidders seen are tracked as Not Responded. The bidders listed have been invited to bid by way of invitations. For existing and upgrade users, all bidders who received an invitation to bid are listed in the log.

When users sign in through the bidder portal and accept or reject the consent notice, the system tracks their responses and assigns a status accordingly.

The log shows all bidders with Not Responded status before the web consent is enabled for first time.

The following toolbar options are displayed on the **Consent Status** log:

View: Lets you see the following out-of-the-box (OOTB) views:

- ▶ All
- ▶ Group by Consent Status

When view is changed to Group by Consent Status, by default the groups will be collapsed and an additional toolbar option of Expand/collapse will be displayed.

Search: Lets you find information about a user or group by way of:

- ▶ Name
- ▶ Email Address
- ▶ Title
- ▶ Company
- ▶ Status
- ▶ Record Number

Find on page: Lets you filter the contents of the log.

Print: Lets you print the contents of the log.

Reset Accepted Consent: This option is available when the consent notice option is enabled. This option lets you reset the **Accepted** consent status to **Not Responded**, for example if there are changes in the agreement.

The following examples explain how the system administers consent notices in the case of an email address or user ID changes:

Example One

The email address of vendor record V1 was changed from Email1 to Email2, and the user id Email1 was assigned to vendor record V2.

The system displays a new entry for the user ID (in the Consent Status log) after the invitation is sent to the new email address. The system *retains* the consent agreement provided to the previous user ID.

Example Two

The email address of vendor record V1 was changed from Email1 to Email2, and the user id Email1 has left the organization.

The system displays a new entry for the user ID (in the Consent Status log) after the invitation is sent to the new email address. The system *removes* the consent agreement provided to the previous user ID, and the entry for that user ID is not displayed in the Consent Status log.

The following columns are displayed on the **Consent Status** log:

- ▶ Name
- ▶ Email Address
- ▶ Title
- ▶ Company
- ▶ Record Number
- ▶ Status
- ▶ Time

Translating Custom Strings (Internationalization)

The content of the material created by the Users (also known as custom strings) can be translated into different languages.

Examples

Business Process (BP) name, Data Element (DE) label, drop-down labels, radio button, navigation log names, and multi select values

Note: The user input data in Business Processes (BPs), attribute forms of various Managers, and other similar elements, when entered at runtime, cannot be translated.

The Internationalization node (a sub-node of the Configuration node) contains the custom strings that the users have developed. The custom strings that are listed in the Configuration - Internationalization log are set to provide the necessary details for translators.

Notes:

- Users can translate custom defined strings into various supported languages. The Internationalization module contains a list of custom strings developed by the user, which provides the necessary details for translators.
 - The numeric fields support international number formats (standards).
 - The system displays all available currencies and their respective symbols.
-

Oracle provides translations for Arabic, Chinese (Simplified), Chinese (Traditional), Dutch, English, French, German, Italian, Japanese, Korean, Portuguese (Brazilian), Russian, and Spanish.

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Internationalization Node Properties

To access the Internationalization node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Click the **Configuration** node to expand it.
- 3) Click **Internationalization** to open the **Configuration - Internationalization** log.

Within the log, you can:

- ▶ Determine which log items qualify for custom strings translation.
- ▶ Select to see 100 or 200 items per page.
Use the **Display** drop-down list on the right side of the log.
- ▶ Change the order of the items in the **Source Type** column.
- ▶ Change the sequence of the languages displayed in the log as explained in the following section.
- ▶ See the list of all Custom Strings available for translation.

To select which languages must be displayed in the log list:

From the **Configuration - Internationalization** log toolbar, click **Language Log** to open the Language Log dialog box. This dialog box has the following tabs:

- ▶ **Languages**

Displays the following information:

- Column: Displays the column number (in the **Configuration - Internationalization** log) corresponding to a particular language.
- Language: Displays the name of the language.

- Status: Active (for languages that are available for use) or Inactive (for languages that are not available for use). Click the cell to change the status. The **General** tab in the **Modify Translation String** window will list languages with Status = Active so that you can modify the translation strings for each of those languages.
- Default: Lets you select one language as the default language for the system.

▶ **Columns**

In this tab, only languages that have been marked as **Active** in the **Languages** tab will be displayed.

- Column: Displays the column number (in the **Configuration - Internationalization** log) corresponding to a particular language.
- Language: Displays the name of the language.
- Show Language: Lets you select which languages will be displayed in **Configuration - Internationalization** log and elsewhere where the language is available for use.

To change the sequence of the languages displayed in the log:

- 1) To rearrange the order of languages displayed on each row in the log list, select a language, and click **Move Up** or click **Move Down**.

Alternatively, you can double-click the number next to the language, edit the number, and click Update Order.

- 2) When finished, click **Update Order**, **Apply**, and **OK**.

- 3) Use **Refresh** to update the list in the Internationalization Log. The following explains the refresh options:

- ▶ *Strings*: Use this option to refresh the Internationalization log with the source strings belonging to a particular source type. The system prompts you to select the Source Type of the strings that need to be refreshed.

When you select Strings, the Refresh Strings window opens, which lets you select or deselect the source types that you want the system to display. Click OK to save your changes, Cancel to terminate the change.

- ▶ *All Strings*: Use this option to refresh the Internationalization log with *all* custom strings from *all* source types. This operation might take a few minutes.

When you select All Strings, a Confirmation message window opens explaining the system status. Review the message and proceed as desired.

- ▶ *History*: Use this option to see the history of refresh requests: Requestor, Source Type, Submit Date, End Date, and Status. You can view History details after the refresh is complete.

The following explains the function of each toolbar option in the Internationalization Log:

- ▶ **Open**: This option lets you open the translated custom string.
- ▶ **Export**: This option lets you export strings for bulk translation.
- ▶ **Import**: This option lets you import a file that is ready (translated) into the system, or log.
- ▶ **Delete**: This option lets you delete translated custom strings.

Note: You can delete a custom string *only* if it has not been used elsewhere.

- ▶ **Find:** This option lets you filter out the custom strings that are available in the log.

Note: When you select this option, you must select a source type and provide search operator for the string that you want to find.

- ▶ **Language Log:** This option lets you set the sequence of log columns.
- ▶ **Refresh:** This option lets you refresh the items in the log with new or modified custom strings that qualify for custom translation.

The following explains the function of each menu option in the Internationalization Log:

Note: You can perform the functions of menu options using the toolbar.

- ▶ **File:** This option allows you to perform: Open, Export, Import, and Refresh
- ▶ **Edit:** This option allows you to perform: Delete, Language Log
- ▶ **View:** This option allows you to conduct a search: All, Find
- ▶ **Help:** This option allows you to access: User Help, Admin Help, uDesigner Help, Unifier Library, and User Productivity Kit.

The CBS Code Label and CBS Item Label data elements are available as source strings, for Internationalization.

The following data elements are not available as source strings, for Internationalization:

- ▶ CBS Code
- ▶ CBS Picker
- ▶ CBS Description

Also, the text "CBS Picker" is a system-defined string and not available as a source string, for Internationalization. If you want to change the text "CBS Picker," you can use the label name for the "bltemID" data element for the picker title. For example, if "Cost Code" is the label name for the "bltemID" data element, then the picker title will be "Cost Code Picker."

Note: After you change the picker name, ensure that you do the same in the related column of the CSV, or Excel, import file to prevent import failure.

Internationalizing Environments

A translated custom string can be used in the **Development** environment, **Test** environment, and **Production** environment.

You can use the "XLIFF" file across the two environments using the export and import functions.

Workflow

First, export the custom string (translated) using the Export option out of one environment. Then, using the Import option, import the exported custom string (translated) into the other environment.

Notes:

- The transfer of translated custom strings can be done one language at a time.
 - If a custom string does not exist in the destination environment, then that custom string cannot be used; however, the custom string will be available in the Internationalization Log.
 - If you add a source string to your source type in the **Development/Test** environment, but this source string does not exist in the **Production** environment, upon exporting the XLIFF file to the **Production** environment, the source string will carry over.
-

Translating Methods

There are two methods available in the system for translating custom strings:

▶ **User Interface**

Use this translation method only when you add or modify a limited number of custom strings.

▶ **Export/Import**

Use this translation method when you must translate a large number of custom strings. This method is particularly useful to professional product-translators because the system provides a file format (.XLIFF) that streamlines the translation efforts (Export). After the translations are completed, the Company Administrator, or a User with appropriate permissions, can access the node and import the translated file back into the system (Import). The translation is done for one language at a time.

To use the User Interface translation method:

- 1) Go to the **Internationalization** node.
- 2) Select the custom string that you want to translate.
- 3) Click **Open** from the toolbar to open the Modify Translation String window. The **Source Type** and **Source String** fields are read only.
- 4) In the **Note** field enter a description explaining the context and usage of the custom string that you are about to translate.
- 5) Modify, or add to, the existing translations. You can enter multiple languages for the custom string.
- 6) When finished, click **Apply** and then **OK**.

About Source Type and Source String

Each custom string is unique according to the custom string Source Type and Source String. The Source Type displays the Source String category. Data Structure, uDesigner, and Reports are some of the options under Source Type.

Example

A designer designs a Data Element (DE) with the label: Vendors. The Business Process is also named: Vendors. Since both the DE and BP constitute a design element, the Source Type is: uDesigner.

Language codes

Use the following information to match the language settings:

- ▶ Chinese (Simplified): zh_CH
- ▶ Chinese (Traditional): zh_TW
- ▶ English: en
- ▶ French: fr
- ▶ German: de
- ▶ Italian: it
- ▶ Japanese: ja
- ▶ Korean: ko
- ▶ Portuguese (Brazil): pt_BR
- ▶ Russian: ru
- ▶ Spanish: es

To use the Export/Import translation method:

- 1) Go to the **Internationalization** node.
- 2) Select the custom string that you want to translate.
- 3) Click **Export** from the toolbar to open the Export Options window.
- 4) Select values for the following fields:
 - ▶ **Source Language**
The current language of the custom string. (Example: English)
 - ▶ **Target Language**
The language that the source custom string has to be translated into. You can only select one language. (Example: German)
 - ▶ **Source Type**
To allow you to filter the custom string for export base on a particular Source Type. The drop-down list contains values such as: Data Structure, Reports, and so on. (Example: Business Process Setup)
 - ▶ **Include Translated Strings**
This is an optional parameter. By default, this option is selected.
 - If *selected*, the custom strings (source strings) that are currently translated into the selected language will be exported, also.
 - If *deselected*, only the custom strings (source strings) that are not translated into the selected language will be exported.
- 5) Click **Export** to open the **File Download** window. The file download operation follows the Unifier standard file download process.

The exported file is in ".XLIFF" format and the file name contains "Unifier" (Unifier+-+<Language Name>.XLIFF).

The number of characters allowed in the file name is based on Unifier standard. For supported version of the "XLIFF" file refer to the *Primavera Unifier Tested Configurations* document.

The exported file contains the following information: ID, Source String, Target Language, and Note.

The Source String is the base for all translations, the Target Language is the language selected, and the Note is a placeholder, which stores notes for the translators. The source language attribute for the exported file originates from the Source language selection at the time of export.

- 6) Save the file in your local folder and open the file using a program such as Notepad or WordPad.
- 7) Open the saved XLIFF file, review the declaration information, and search for <source>. Example:

```
<source>Assets</source>
```

- 8) Enter a new line, include the target language information, and save the file. Example:

```
<target>Aktiva</target>
```

- 9) Change the value of "approved" to "yes." Example:

```
<trans-unit id="l5ZQE6Yw9eD/h+JchexCKco1fHnswOCBQne0aR7L86lugwBoiYsRbBpmz+fhygs3" approved="no">
```

If you have exported .XLIFF file prior to 21.8, then your exported file will not be compatible after 21.8. For new translations, on or after 21.8, Oracle recommends that you export the strings again.

- 10) Proceed to import the file back to Unifier.

When the file is ready, use the Import option to bring the translated file back into the system.

- 1) Go to the **Internationalization** node.
- 2) Click **Import** from the toolbar to open the standard File Upload window.
- 3) Click **Browse**, and import the translated file (Unifier-,Language Name.XLIFF). Basic file replacement and override apply.

At this point, the translated custom strings map to the appropriate language settings and are ready to be used.

Note: The Oracle Database column size must not exceed the storage size of 4000 bytes.

Assigning Permissions

The Company Administrator assigns access permissions to the Internationalization node, and the permissions can be set for both Users and Groups.

There are two types of permissions available for the Internationalization node:

- ▶ Configure
- ▶ View

Users who have *Configure* permission can translate the custom strings, and Users who have *View* permission can only view the translated custom strings.

To assign permissions to a User through the **Company Users** or **Partner Users** node:

- 1) Expand the **User Administration** grouping node and select either **Company Users** or **Partner Users**.
- 2) Select a user from the log.
- 3) Go to the **Permissions** tab.
- 4) Go to **Administration Mode Access > Configuration > Internationalization**.
- 5) Assign permissions as necessary.

To assign permissions to a User with **Access Control**:

- 1) Expand the **User Administration** grouping node and click **Access Control**.
- 2) Go to **Administration Mode Access > Configuration > Internationalization**.
- 3) Click **Add**.
- 4) Click **Add Users/Groups**.
- 5) Select all users to assign permissions to and click **Add**. Click **OK** when finished.
- 6) In the Permission Settings block, assign *View* or *Configure* permissions to all selected users. Click **OK** when finished.

Displaying Custom Strings and System Strings

The following describes how Custom Strings and System Strings display in Admin mode and while defining Sheets and User Define Reports (UDRs).

The contents that appear in the UI (also known as System Strings) cannot be modified by the Users. The System Strings are available in different languages, per user preferences.

Example

Sign In and Terms and Condition pages, Menus, Alerts, and Errors

In contrast, the content of the material created by the Users (also known as Custom Strings) can be translated into different languages.

Example

Business Process (BP) name, Data Element (DE) label, drop-down (pull-down) values, radio button, text in lines, navigation log names, and multi select values

System Strings are translated according to the user preferences, set in the User Preferences window.

Custom Strings are translated according to the specifications added to the source string, set in the XLIFF file.

When a combination of System and Custom strings are used (concatenation), for example, in a form, the System String portion is translated according to the user preferences, set in the User Preferences window, and the Custom String portion is translated according to the specifications added to the source string, set in the XLIFF file. As a result, it is possible to see an object having one field displayed in one language and another field displayed in another language.

In general, the translated Custom Strings *cannot* be displayed, or seen, while in the user is in Admin mode, except for:

- ▶ Translated Custom Strings for Attribute forms.

Example

If there is a Data Element (DE) called, "Building Name" in an Attribute form (Shell), and if the German translation of the DE exists, then the details page displays the German translation in Admin mode.

- ▶ Pages that are shared between the User mode and Admin mode.

Example

If translated Custom Strings are available, then the pages display the translated Custom Strings in Admin mode and are synchronized when switching to the User mode, as is the case with:

- ▶ Code-based Configurable Manager- sheet templates
- ▶ Record-based Configurable Manager - sheet templates
- ▶ Asset Class templates
- ▶ Shell Dashboard templates
- ▶ User Define Reports (UDRs) templates

Administration Mode

When in the Administration (Admin) mode, the contents that appear in the UI (also known as System Strings) cannot be modified by the Users. The System Strings are available in different languages, per user preferences.

Example

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- ▶ Record-based Configurable Manager - sheet templates
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- ▶ Shell Dashboard templates
- ▶ User Define Reports (UDRs) templates

Internationalization and CSV Files

Importing and exporting data can be done by using a Comma-Separated Values (CSV) data file or a CSV template file. This section explains how the availability of different languages (Internationalization) impact the various CSV files created, used, imported, or exported.

Note: Number formatting is not supported for Symbols that are based on a right-to-left language such as official languages of Afghanistan or Hebrew.

Generic CSV files

Language preferences are detected from the **Preferences** settings (**Region Format**), for both CSV data files and CSV template in:

- ▶ All column headers
- ▶ All informational text

If importing a CSV file fails, the import error file displays the system generated error messages in the preferred language.

If importing a CSV file fails because of form validation errors, then the custom error message displays the message in the preferred language.

Notes:

- If translation is not available for a custom error message, then the source string is displayed.
 - Before importing a CSV file, always check the **Preferences** settings to see the allowed format and number formatting.
 - When importing, or exporting, a CSV file, the date format follows the **Preferences** window (**Region Format**) Date Format settings.
-

Additional information about exporting and importing CSV files

When importing and exporting of a CSV file is conducted by users with two different language settings (for example, French and German), the data entered into an exported file must match the original language set.

Example

The CSV template Export has been done in French and the template is being used by a German User. If the German User enters data without changing the column structure and Imports the file, the Import action will fail and an error message will appear in German, indicating the error.

Internationalization and Web Services

About Web Services

New records can be created and line items can be added using Integration through web services. Also, the Schedule Manager integrates with Primavera scheduling software by way of web services.

Note: Integration through web services must be coordinated with an Oracle Primavera representative.

As Project Administrator, you can receive email notification of the successful creation of a shell instance, for shells that are created manually, through web services or a CSV file upload, or through auto-creation. This notification can be set up in email notifications in uDesigner. Also, you can set your **Preferences** to control whether you receive these notifications.

Web Services and Internationalization

The output data generated by web services is always in the source language.

Note: If a record (Example: Business Process) is created by using web services and the Data Definition (DD) label includes a non-ASCII string, the record creation will fail.

Number formatting of data

When you enter numeric data in XML, you can only use the decimal point (period) and negative sign (dash).

Examples

XML Tag: <Committed_Amount>100.99</Committed_Amount>

XML Tag: <Credited_Amount>-1423.99</Credited_Amount>

Sample JSON request

```
"data": [
  {
    "uuu_quantity": 6000.258,
    "amount": -27600.0,
  }
]
```

When you run a Get call, the input content in the response XML or JSON will be in the language of the source strings.

Get Web Services

You can use the Get Web Services call methods to get various attributes of Shell, CBS, and the list of Business Process records, Shells, and User defined data.

When you run a Get call, the input content in the response XML will be in the language of the source strings.

Number formatting does not apply to the numeric data and the decimal point is a period. The negative numbers are displayed with the minus sign before the numeric data, for example, -12345.99.

Note: Number formatting is not supported for Symbols that are based on a right-to-left language such as official languages of Afghanistan or Hebrew.

Internationalization (Email Notifications)

When the system generates an email notification, the language used for that email is based on the recipient's **Preferences**.

Email notifications for scheduled User-Defined Reports (UDRs), Gates, and so forth, have two components:

- ▶ Text
- ▶ Attachments

If a Business Process (BP) email notification contains an attachment with the record information, then the Custom Strings and number formatting in the attachment is according to the **Preferences**.

If a scheduled UDR is sent as a part of an email attachment, the language in the PDF attachment is according to the **Preferences** of the UDR owner; however, the email text content is according to the recipient's User Preferences.

When a UDR is generated manually and saved by a User, the language in the PDF attachment is according to the **Preferences** of the User who generated, or ran, the UDR.

If a scheduled job such as Project Gates, where the "Auto-email as PDF attachment to users and groups" option is selected, the language in the PDF attachment is according to the User Preferences of the creator of the job (Project Gates creator).

When a manual refresh of the Gates is requested, the language in the PDF attachment is according to the **Preferences** of the User who requested the refresh.

Internationalization (Support for Tools)

When used within the system, the following tools support internationalization:

- ▶ Oracle Map
- ▶ AutoVue Server
- ▶ Flex replacement (O charts)

Note: The Unifier Plug-ins do not support internationalization.

Oracle Map viewer supports internationalization for Tier 1 languages. Refer to the *Oracle Fusion Middleware User's Guide for Oracle* for more details.

The language displayed in the map, and the following subsequent areas, is according to the language selected in the **Preferences** of the user:

- ▶ View map for BP records from log
- ▶ Shell Landing Page
- ▶ Map Picker in Log Find
- ▶ Map Picker in Bulk Edit
- ▶ View Map when invoked from the BP record

Note: eLocation services, which is used for geocoding, does not support internationalization. As a result, the map labels are displayed in English. If a user enters a label in a different language, the Find feature does not provide the desired results.

Internationalization (BI Publisher/Oracle Analytics Publisher Custom Reports)

The BI Publisher/Oracle Analytics Publisher Reports support internationalization as follows:

Custom Report (Report File tab) window

If there are no templates available for the report, the Custom Report window (Report File tab) displays according to the default settings.

To upload the translated XLIFF files and report layout, click **Add** to open the Add Template and Files window, enter data in the required fields, and click **OK**.

Notes:

- The non-RTF templates do not support internationalization.
 - You can only change the template type when the template is in Creation stage. After you create a template, you cannot change the template type. Use the report designer to create a template with the desired template type and remove the template that is no longer needed.
-

In the Custom Report window (Report File tab), the only editable column is the Default column, which lets you set the default template by selecting the corresponding template.

Note: The system sets the first template, or XLIFF file, that you upload as the default template.

Use **Modify** in the Custom Report window (Report File tab) to modify an existing template. After you click Modify, the Modify Template and Files window opens, which lets you modify the template and the translated XLIFF file for that template. When finished, click **OK**.

Use **Download** in the Custom Report window (Report File tab) to download a template and the corresponding translated XLIFF file, in a zip file.

External Data Model BI Publisher/Oracle Analytics Publisher Reports

If you want to download the data model of a template, select the template, and click **Download** in the Custom Report window (Report File tab). When the download is complete for an External BI Publisher/Oracle Analytics Publisher report, the data model is included.

Non-RTF type template

BI Publisher/Oracle Analytics Publisher supports RTF templates and XLIFF files. If the report designer selects a non-RTF type template, the Browse option in the Modify Template and Files window (Translated XLIFF files for the Template section) will be disabled.

Custom Report (Query tab) window

Queries based on Data Definition (DD) support internationalization and number formatting associated with internationalization according to the **Preferences** settings.

Queries based on Data Views do not support internationalization and formatting because raw data is being used.

Queries based on Ad-Hoc support internationalization and number formatting associated with internationalization according to the **Preferences** settings.

Internationalization (Dashboards)

Shell Dashboards

The Shell Dashboards support Internationalization and number formatting for System Strings as well as Custom Strings according to the **Preferences** settings.

Internationalization (Help Files)

Unifier Help files do not support Internationalization and are not translated.

Note: You can translate the Help files, using a third-party translator, and display the files based on your **Preferences** settings. This includes uploading a single PDF with multiple language help information.

Internationalization (Spell Check)

The Spell Check feature does not support Internationalization.

Note: If the language selected in your **Preferences** is not English, the Spell Check option will not be available.

Internationalization (Date and Time Zone Formats)

Date formats

The following additional date formats support Internationalization:

- ▶ MM/DD/YYYY
- ▶ DD/MM/YYYY
- ▶ MM/DD/YY
- ▶ DD/MM/YY
- ▶ MM-DD-YYYY
- ▶ DD-MM-YYYY
- ▶ MM-DD-YY
- ▶ DD-MM-YY
- ▶ DD.MM.YYYY
- ▶ YYYY-MM-DD

- ▶ MMM/DD/YYYY
- ▶ DD/MMM/YYYY
- ▶ YYYY/MMM/DD
- ▶ M/D/YYYY
- ▶ M/D/YY
- ▶ D/M/YYYY
- ▶ D/M/YY
- ▶ YY/M/D
- ▶ YYYY/M/D
- ▶ YY/MM/DD
- ▶ YYYY/MM/DD

Time Zone formats

The Time Zone setting is based on the Coordinated Universal Time (UTC) and supports Internationalization.

Note: The time format for all dates is: HH:MM AM.

Internationalization (Audit Log)

Within the Audit log, the following columns support Internationalization according to the **Preferences**:

- ▶ Event
- ▶ Description
- ▶ Field

System and custom strings can be translated for Event, Description, and Field columns.

Configuring and Publishing BI Publisher/Oracle Analytics Publisher Custom Templates (Custom Prints and Reports)

Unifier integrates with Oracle Business Intelligence (BI) Publisher and Oracle Analytics Publisher to deliver on-demand web-based reporting.

Custom Reports, built in BI Publisher/Oracle Analytics Publisher, enable the Company Administrator (or power user) to build visually stunning, detailed reports. For example:

- ▶ A report that combines information from multiple (and possibly non-linked) Business Processes (BPs)
- ▶ A report that needs professional looking graphics, charts, images, or clip art

The following sections explain how to create and configure custom prints and custom reports in the BI Publisher/Oracle Analytics Publisher.

To *publish* custom prints and custom reports:

- 1) Prepare the custom print or custom report.
- 2) Click **Status**.
- 3) Select **Publish**.

Note: Oracle supports the delivery of BI Publisher/Oracle Analytics Publisher reports in PDF format by way of email, only.

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Custom Templates (Custom Prints and Reports) Overview

To access Custom Prints and Reports sub-node: Open **Unifier > Company Workspace** tab > **Admin** mode > **Configuration > Custom Templates**.

Note: To run custom reports, access Reports node: Open **Unifier > Company Workspace** tab > **User** mode > **Reports**. Data views are required for creating custom reports.

The **New** option of the **Custom Templates** log (or **File > New**) lets you create the following:

Option	Description
<p>Custom Print with Internal Data Model</p>	<p>When the user clicks New > Custom Print > Custom Print with Internal Data Model, the print template window displays the Data Model Type set as Internal Multiple.</p> <p>Any new custom print templates will be of data model Internal Multiple and can be used for bulk printing and single-record printing. Existing custom print templates of data model type Internal can still be used for single-record printing.</p> <p>The tags generated for the XML data in the Sample data tab are grouped differently for data model type of Internal Multiple, and the template designers must use the new XML data structure and create layout templates.</p>
<p>Custom Print with External Data Model</p>	<p>External data models can be created outside of the system. They can include links to multiple tables and pull data from multiple Business Processes. These data models can be used to create custom print templates. You can create a Custom Print template based on an external data model. The concept of creating a Custom Print template based on an external data model is similar to the concept of creating a Custom Print template based on an internal data model, except that the user creates, uploads, and maintains the data model needed for creating Custom Print template based on an external data model.</p> <p>When the user clicks New > Custom Print > Custom Print with External Data Model, the print template window displays the Data Model Type set as External Multiple.</p> <p>Any new custom print templates will be of data model External Multiple and can be used for bulk printing and single-record printing. Existing custom print templates of data model type External can still be used for single-record printing.</p> <p>The external data model must contain parameters that support printing of multiple</p>

Option	Description
	records. The Record IDs pass as comma separated value.
Report with Internal Data Model	<p>Create a BI Publisher/Oracle Analytics Publisher Custom Report based on the standard data model, which is generated and maintained internally by the system. When you save the Custom Report, the system saves changes applied to the following in the data model:</p> <ul style="list-style-type: none"> ▶ Data views ▶ Data links ▶ Query parameters ▶ Additional parameters <p>The Custom Report window contains the following tabs and fields:</p> <p>General</p> <ul style="list-style-type: none"> ▶ Name ▶ Description ▶ Data Model Type <p>The value for the Data Model Type field in the General tab is set to Internal (read-only).</p> <ul style="list-style-type: none"> ▶ Report Level ▶ Main View <p>Views</p> <p>Your selected values for the Report Level and Main View fields (General tab) determines the fields in the Views tab.</p> <ul style="list-style-type: none"> ▶ Description ▶ Data Model Type <p>The value for the Data Model Type field in the General tab is set to Internal (read-only).</p> <ul style="list-style-type: none"> ▶ Report Level ▶ Main View <p>- The Main View is not a mandatory field while creating the Report with External Data Model.</p> <p>- Users can add the Main View to a Report with External Data Model if they want to add query parameters for the report.</p>

Option	Description
	<p>Query Parameters</p>
<p>Report with External Data Model</p>	<p>Create a BI Publisher/Oracle Analytics Publisher Custom Report to upload the custom data model file created using BI Publisher/Oracle Analytics Publisher. The system will not maintain the data model file.</p> <p>You can generate sample data for an external model-based report provided that the external model-based report is published at least once. To do this, you must externally modify the .XDM file either manually or by using the BI Publisher/Oracle Analytics Publisher data model editor, then re-upload the report.</p> <p>This option has the same tabs as the Report with Internal Data Model option.</p> <p>The value for Data Model Type field in the General tab is set to External (read-only).</p> <p>The value for Main View depends on the following conditions:</p> <ul style="list-style-type: none"> ▶ If an External Data Model was generated by converting an Internal Data Model report, then the value for Main View will be set according to the Internal Data Model report. ▶ The user will be allowed to clear the value for Main View and save the report only if there are no Query parameters defined for the converted report. ▶ The user will be able to generate sample data as before. Generation of sample data will be possible after the report has been published at least once.
<p>Custom Email with Internal Data Model</p>	<p>Customize the emails that are sent to bidders who are not a part of the system. You can include any of the business process data, and the email-related data, in the notification that you want sent to the bidder. This option is used to send email notifications for the Request for Bid (RFB)</p>

Option	Description
	<p>business processes.</p> <p>The Custom Email window contains the following tab and fields:</p> <p>General</p> <ul style="list-style-type: none"> ▶ Name ▶ Description ▶ Data Source <p>Lists the Request for Bid (RFB) business processes so that you can create the custom email notification.</p> ▶ Data Model Type <p>The value for the Data Model Type field in the General tab is set to Internal (read-only).</p> ▶ Email Type <ul style="list-style-type: none"> ▶ Login Information ▶ Bid Invitation ▶ Due Date Change <p>After you are finished, click Apply to set the values for your template and sample data in the following tabs of the updated Custom Email window:</p> <p>Template File</p> <p>You can upload multiple Rich Text Format (RTF) templates. You can select any template as the default template and change the default when required. Click Add to upload a template file that you want to use to customize your email. The system uses the parameters set in the Add Template window to format the email, using the BI Publisher/Oracle Analytics Publisher.</p> <p>Sample Data</p> <p>After you add a template, go to the Sample Data tab to select a sample data for the custom email. You can generate the sample data xml from the Sample Data tab and download the sample data xml to create the layout files.</p> <p>You can export the published Custom Emails using the Configuration Packages</p>

Option	Description
	<p>feature.</p> <p>All the fields available in the Custom Print version of a Request for Bid (RFB) business processes are available for the Custom Email version. In addition, the following email-specific fields are available as sample data:</p> <ul style="list-style-type: none"> ▶ From Requestor: The user who has sent across the Bid invitation. ▶ Email: Email ID of the requestor. ▶ Phone: Phone number of the requestor. ▶ Sent for: This field signifies what is the invitation for and has a value of 'Bid'. ▶ Username: The user name of the Bidder (Email ID of the Bidder) ▶ Password: The password that needs to be sent across to the Bidder. ▶ New Due: The changed value of the Due Date of the Bid. ▶ Bid URL: This is the URL which the bidder needs to use to login into the Bid portal. ▶ Contact First Name(<code>uuu_contact_first_name</code>): This is the First Name of the Vendor's Contact. ▶ Contact Last Name(<code>uuu_contact_last_name</code>): This is the last Name of the Vendor's Contact. <p>After you have configured the design of the custom email, you can save your changes and publish your design to the BI Publisher/Oracle Analytics Publisher server. The Notification tab of the Request for Bid (RFB) business processes will contain all your added options. You must select a notification (Custom Notifications) for:</p> <ul style="list-style-type: none"> ▶ Bid Invitation ▶ Login Information ▶ Due Date Change <p>Each notification has a list of templates</p>

Option	Description
	that have been published at least once.

When BI Publisher/Oracle Analytics Publisher Custom Print templates are created using external data model, the system does not generate any additional data models for use in the print template.

If a custom print template of **Internal_Multiple** has been converted, then the resulting data model will be **External_Multiple** and will be available for bulk printing.

Copying a template will copy the data model associated with the source template.

Use the options in **Find** to select the data models **Internal_Multiple** and **External_Multiple**.

Assigning Roles and Permissions to BI Publisher/Oracle Analytics Publisher User to Publish and Run Reports

If you want to publish and run Unifier reports, the following roles and permissions must be assigned to the BI Publisher/Oracle Analytics Publisher user (who integrates Unifier and OBIEE):

- ▶ BI Publisher/Oracle Analytics Publisher Consumer: Open
- ▶ BI Publisher/Oracle Analytics Publisher Content Author: Traverse
- ▶ BI Publisher/Oracle Analytics Publisher Service Administrator: Full Control

Creating Data Model (.XDM) File

To create an .XDM file, you can either:

- ▶ Create the .XDM file from a local BI Publisher/Oracle Analytics Publisher server, or
- ▶ Copy any existing .XDM file, from an existing report, and create an .XDM file.

Note: To create an .XDM file that works with the system, you must make changes in the .XDM file, accordingly.

Custom Templates Windows Log

The following applies to all Custom Prints and Reports (Internal Reports and External Reports).

Users do not need a separate set of permissions to access the External Reports in the Custom Prints and Reports log. Users who have permissions to the **Custom Templates** node can view the External Reports in the **Admin** mode.

In the **User** mode, because the External Reports appear as a list, the permission settings are the same as those for Internal Custom Reports (View).

The Custom Prints and Reports windows log (**Custom Templates - Current View: All**) displays information such as the name, description, and modification date.

Name

- ▶ Name of Print template or name of Report.
- ▶ For External Reports: This field displays the name of the report populated from the BI Publisher/Oracle Analytics Publisher server.
- ▶ For Custom Print: The name of the print template, as entered in Unifier.
- ▶ For Internal Reports: The name of the report as entered in Unifier.
- ▶ The maximum character length is 255. After 255, the characters will be truncated.

Description

- ▶ Description of Print template or description of Report.
- ▶ For External Reports: This field displays the description of the report populated from the BI Publisher/Oracle Analytics Publisher server.
- ▶ For Custom Print: The description of the print template, as entered in Unifier.
- ▶ For Internal Reports: The description of the report, as entered in Unifier.

Type

- ▶ Custom Print
- ▶ External Reports: The reports that are created in the BI Publisher/Oracle Analytics Publisher server, and are displayed here, will have a Type: External Reports.
- ▶ Internal Reports: The reports that are created in Unifier will have a Type: Internal Reports.
- ▶ Custom Email

Location

This column is empty and not available for use.

Data Model Type

Internal or External for both Print and Report.

Key

- ▶ System-generated unique ID.
- ▶ For External Reports: The key starts with "uuu_ext"
- ▶ For Print or Internal Report: The key starts with "uuu_"

Report Level

The value is blank for Print and for both Internal and External reports, it shows Project, Program, or Application (only for Internal Reports).

Status

- ▶ Displays whether the report is in one of the following conditions:
- ▶ Invalid (only applicable for the External Reports)

- ▶ Draft
- ▶ Publish

Publish Date/Synch Date

- ▶ Date the record was last published, or synchronized, in the BI Publisher/Oracle Analytics Publisher server and Unifier. This field will be blank when status is changed to Draft/Invalid.
- ▶ For External Reports: The date when the report is synchronized (from BI Publisher/Oracle Analytics Publisher server to Unifier).
- ▶ For Custom Print: The date that the print template was published to the BI Publisher/Oracle Analytics Publisher server.
- ▶ For Internal Reports: The date the reports were published to the BI Publisher/Oracle Analytics Publisher server.

Last Modified By

Name of the user who last synchronized the record.

Note: When transferring Custom Reports by way of configuration package, the Custom Reports name and level must match in both source environment and destination environment.

The toolbar contains the following options:

- ▶ New
 - ▶ Custom Print with Internal Data Model
 - ▶ Custom Print with External Data Model
 - ▶ Report with Internal Data Model
 - ▶ Report with External Data Model
 - ▶ Custom Email with Internal Data Model
- ▶ Open
- ▶ Copy
- ▶ Delete
- ▶ Status
- ▶ Find
- ▶ Synchronize External Reports

New

The External Reports are created in the BI Publisher/Oracle Analytics Publisher server. The New option enables the user to create Internal Reports and Custom Print templates.

Open

The user uses the Open option to open an External Report.

Copy

This option is disabled if you select a record in the Custom Print, or Reports, logs that is an External Report type.

Delete

For External Reports: The user can use this option to delete External Reports that have "Invalid" status. This option is disabled if the selected External Report is in "Published" status.

For Internal Reports: The user can use this option to delete an Internal Report that has never been Published.

For Custom Prints: The user can use this option to delete a Custom Print that is in "Draft" or "Published" status.

Status

The status for all imported External Reports is "Published." The values for this column are:

- ▶ Draft
- ▶ Published
- ▶ Invalid
 - ▶ The "Invalid" status is only applicable to External Reports. This status does not apply, and is not available, for Internal Reports and Custom Print records.
 - ▶ The system assigns the "Invalid" status if a report that has been previously imported to the system is no longer in the BI Publisher/Oracle Analytics Publisher server.
 - ▶ You can delete an External Report that has the status "Invalid" from the log.
 - ▶ If the user had the permission to view an External Report at runtime, and the status is now set as "Invalid," then the user cannot view the External Report at runtime.

Find

The Find option, on the toolbar, lets you search for a particular record in Custom Prints and Reports log. The options for finding a report are:

- ▶ Name
- ▶ Type
- ▶ Location
- ▶ Data Model Type
- ▶ Last Modified By

Synchronize External Reports

The Synchronize External Reports option, on the toolbar, lets you synchronize data between the BI Publisher/Oracle Analytics Publisher server and Unifier.

This option allows you, the Administrator, to update the system with the reports created in the BI Publisher/Oracle Analytics Publisher server. When you click Synchronize External Reports, the system connects to BI Publisher/Oracle Analytics Publisher server to retrieve reports through Web Services.

You can set the level of the report (Report Level) in the Synchronize External Reports window that opens after you click **Synchronize External Reports**.

After the synchronization is complete, you can set the permissions, per Report Level, in Unifier. During the runtime, all changes to the report design, such as data model, layout, translation files, and so forth, will be applied.

The following rules apply when you synchronize *external reports*:

- ▶ The **Synchronize External Reports** window displays all the new reports that exist in the BI Publisher/Oracle Analytics Publisher server.
- ▶ Reports that exist in both BI Publisher/Oracle Analytics Publisher server and Unifier (same reports in terms of count, name, and location), do not appear in the Synchronize External Reports window.
- ▶ When you click **Synchronize External Reports**, the system synchronizes all reports. You cannot select a particular report to be imported into Unifier.
- ▶ If you have imported a report to Unifier and the report no longer exists in the BI Publisher/Oracle Analytics Publisher server, then when you click Synchronize External Reports the status of the report will be "Invalid" and you cannot see the report at runtime.
- ▶ If you change the name of a report in BI Publisher/Oracle Analytics Publisher server, the system treats the report as a new report after synchronization.
 - ▶ The system sets the original report, in Unifier, as "Invalid" and you cannot see the report at runtime.
- ▶ If you change the location of a report in BI Publisher/Oracle Analytics Publisher server, the system treats the report as a new report, after synchronization.
 - ▶ The Synchronize External Reports window displays the report and the report new location, after import.
 - ▶ The system sets the original report, in Unifier, as "Invalid" and you cannot see the report at runtime.
- ▶ If multiple reports, with same names exist in BI Publisher/Oracle Analytics Publisher server, after synchronization, all reports will be imported into Unifier.
- ▶ After the reports are synchronized, the system updates the descriptions of the reports. There will be a small delay for this operation.
- ▶ If the report parameter (external reports) starts with "uuu_hidden_", it will not be available for the user to edit in Unifier.

Synchronize External Reports window

- ▶ The Report Name is a read-only field and lists the names in alphabetical order.
- ▶ The Location is a read-only field and lists the location of the report in the BI Publisher/Oracle Analytics Publisher server.
- ▶ The Report Level is drop-down field and contains two values to select from: Project and Program. The default value is Project, and you can modify the Report Level only at the time of import. After you import the report, you cannot modify the Report Level. If you select an incorrect Report Level, the system sets the status of that report as "Invalid." You can select Synchronized External Reports option and set the Report Level in the Edit Report Level window.
- ▶ The Description field provides a description for the BI Publisher/Oracle Analytics Publisher Report on the BI Publisher/Oracle Analytics Publisher server.

BI Publisher/Oracle Analytics Publisher Report Levels

There two major levels for a BI Publisher/Oracle Analytics Publisher report.

- ▶ Project level, which means the report is running in Project/Shell context.
- ▶ Program level, which means the report is running in Program context.

For a Project or Program report, respectively, ensure that the following predefined Unifier parameters are applied on the "Where" clause as conditions in the query of the Data Set related to the Main view:

- ▶ :uuu_p_context_project_id
- ▶ :uuu_p_context_program_id

The following are examples of the parameters used in a "Where" clause:

- ▶ project_id = nvl(:uuu_p_context_project_id,project_id)
- ▶ program_id = nvl(:uuu_p_context_program_id,program_id)

Sample XML Data for Custom Templates (Custom Prints and Reports)

In case of a Custom Print, the sample data contains data elements that will be used in the layout files to capture information about a business process.

Some data elements are specific to the business process selected as they map to the standard and custom elements included in the business process forms.

If you have an image picker Data Element (DE) on your business process form, then the sample data includes the XML element, which provides the data for the ID that corresponds to the image as well as the name of the image.

Example

If the image picker DE "AE_Image" is placed on the business process form, then the generated data XML will have the "AE_Image" DE, which provides value for the uploaded image name, and the "k__AE_Image" DE, which provides value for the uploaded image ID.

You must use the image ID in the BI Publisher/Oracle Analytics Publisher template for the custom print of the business process.

There are some data elements present in the sample data for all the business processes because they apply to all. These data elements provide information such as record attachments, attachment comments, line item attachments, workflow steps, and so forth.

The following is a list of data elements and their descriptions:

Notes:

- The top-level data set, in the Internal Multiple Data Model Type, is the project_company_info. This must be the first grouping because the Internal Multiple Custom Print template can be selected for multiple business process records, from the Tasks log, Business Processes log, or Master log. These pages display business process records from multiple shells that the user has access to (permission). This data set has fields providing information of the company and project to which the Business Process record is associated with.
- All other data sets are children to this data set.
- Each XML Data Element Group represents a unique data set in the data model uploaded to the BI Publisher/Oracle Analytics Publisher Server and has a field that its value uniquely represents the record.
- The unique field in each data set is the field to be used as a group-by

field on the template for rendering the data grouped under the business process record.

- The unique fields are important to the template designers because of the layout and the data that needs to be displayed on the BI Publisher/Oracle Analytics Publisher Custom Print output.
 - The unique field in each data set can be suffixed by a number. This applies to other data sets as well as a similar field.
 - The number suffix is added automatically to maintain the uniqueness of the field across the data sets. This is used by the BI Publisher/Oracle Analytics Publisher for the correct grouping of the data. For example, for multiple ID fields in different data sets, the ID field appears as: <ID_3></ID_3>.
 - The following explains the unique field value for the data set along with a description.
-

<li_attachments>

- ▶ Unique Field: <ID_<<no>>> . . </ID_<<no>>>
- ▶ The sub-elements under this provide information about line item attachments for the business process when the business process has line items.

<lic_attachments>

- ▶ Unique Field: <ID_<<no>>> . . </ID_<<no>>>
- ▶ The element is a child of <la_comments> and its sub-elements provide information about attachments linked to the comment of line-item attachment.

<li_ca>

- ▶ Unique Field: <ID_<<no>>> . . </ID_<<no>>>
- ▶ The element is a sub-element that provides information about cost allocation line item element for Summary Payment Application of SOV type BP.

<la_comments>

- ▶ Unique Field: <. Unique Field: <COMMENT_ID_<<no>>> . . <COMMENT_ID_<<no>>>
- ▶ This element is a child of <li_attachments> and its sub-elements provide information on the comments associated with the line-item attachment.

<standard_elements>

- ▶ This is applicable to Custom Print of Data Model Type Internal.
- ▶ The sub-elements of this group element provide information about company name, project name, project number, and so on.

<general_comments>

- ▶ Unique Field: <. Unique Field: <COMMENT_ID_<<no>>> . . <COMMENT_ID_<<no>>>

- ▶ The sub-elements of this group element provide information about general comments on the business process.

<gc_attachments>

The element is a child of <general_comments> and its sub-elements provide information about attachments linked to the general comment.

<record_attachments>

- ▶ Unique Field: <ID_<<no>>>..</ID_<<no>>>
- ▶ The sub-elements under this provide information about record attachments for the business process.

<ra_comments>

- ▶ Unique Field: <COMMENT_ID_<<no>>>..<COMMENT_ID_<<no>>>
- ▶ This element is a child of <record_attachments> and its sub-elements provide information on the comments associated with the record attachments.

<rac_attachments>

- ▶ Unique Field: <ID_<<no>>>..</ID_<<no>>>
- ▶ The element is a child of <ra_comments> and its sub-elements provide information about attachments linked to the comment of record attachment.

For workflow business processes, there are additional elements that provide information about the workflow process and its details. The following is a list of data elements:

Unique Field: <ID_<<no>>>..</ID_<<no>>>

<workflow_steps>

- ▶ <WF_PROCESS_ID></WF_PROCESS_ID> Process Id
- ▶ <SOURCE_ID_1></SOURCE_ID_1> BP record Id
- ▶ The sub-element of this element provides information about the workflow steps associated with the business process. Details like step name, step assignees

<task_assignees>

- ▶ <WFTEMPLATE_ID></WFTEMPLATE_ID>
- ▶ <BIP_SOURCE_ID></BIP_SOURCE_ID> or <OracleAnalyticsPublisher_SOURCE_ID></OracleAnalyticsPublisher_SOURCE_ID>
- ▶ <BIP_WF_PROCESS_ID></BIP_WF_PROCESS_ID> or <OracleAnalyticsPublisher_WF_PROCESS_ID></OracleAnalyticsPublisher_WF_PROCESS_ID>
- ▶ The sub-element of this element provides information about task and assignee details. Information like Task name, Task Status, Assigned From, Assigned To and more

<workflow_progress>

- ▶ `<WF_PROCESS_ID></WF_PROCESS_ID>` Process Id
- ▶ `<SOURCE_ID_1></SOURCE_ID_1>`
- ▶ The sub-elements of this element provide information about status of the workflow.

`<group_assignment_notes>`

- ▶ `<PROCESS_ID></PROCESS_ID>`
- ▶ `<STEP_ID></STEP_ID>`
- ▶ The sub-elements of this element provide information about the notes sent when a task is assigned to the group in the workflow process.

Creating BI Publisher/Oracle Analytics Publisher Custom Print

To create a BI Publisher/Oracle Analytics Publisher *custom print* configuration:

- 1) In Unifier, go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Custom Templates**.
- 3) In the **Custom Templates - Current View: All** log, click **New**.
- 4) Select one of the following options to open the Custom Print window:
 - ▶ **Custom Print with Internal Data Model**
 - ▶ **Custom Print with External Data Model**

Note: To view a BI Publisher/Oracle Analytics Publisher *custom print* template, select the template and click **Open**.

See the ***Custom Templates (Custom Prints and Reports) Overview*** (on page 216) section for more details.

Custom Print Window (General tab)

In the **General** tab, you can define the general *custom print* information.

- 1) Enter and select values in the following fields:

Note: Required fields are marked with an asterisk (*), or a star.

- ▶ **Name**
Enter a unique name for the *custom print*, up to 50 characters (use alphanumeric characters, non-ASCII characters, or spaces).
- ▶ **Description**
(Optional) Enter a brief description about the *custom print* up to 250 characters (use non-ASCII characters).
- ▶ **Data Source**
Select one of the values from the drop-down list. The list contains all the design objects that support *custom print*, such as BP names, Space attribute names, CM attribute names, and so on.
- ▶ **Data Model Type**

This is pre-populated read-only field, based on the selected *custom print* type. The values, based on the option selected at the time of creating the *custom print*, can be one of the following:

- Internal
- External
- Internal Multiple
- External Multiple
- Internal or External

2) Click **Apply** to continue.

When you click **Apply**, the system processes the information that you have provided and prepares the custom print for publication. As a result of this process, two additional tabs are added to the *Custom Print* window that require your input:

▶ **Template File tab**

The Template File tab lets you upload:

- ▶ Multiple templates for the *custom print* (RTF, PDF, Excel, eText)
- ▶ Data model (.XDM) file (for print with external data model)

▶ **Sample Data tab**

The Sample Data tab lets you generate the sample XML, which you can use to create layouts for the *custom print*. In the case of an external data model-based report, the report must have been published to the BI Publisher/Oracle Analytics Publisher server at least once before the sample XML data can be generated.

See the following topics for details:

- ▶ ***Custom Print Window (Template File tab)***
- ▶ ***Custom Print Window (Sample Data tab)***

Custom Print Window (Template File tab)

The **Template File** tab contains information about the print layout, along with the corresponding templates and XLIFF translations.

You can build a Rich Text Format (RTF) print template and upload the template to your Custom Print in the system.

To create a simple RTF template:

1) Open Microsoft **Word**.

The application must have the Microsoft Word BI Publisher/Oracle Analytics Publisher plug-in installed. See ***Download and Install BI Publisher/Oracle Analytics Publisher Desktop for Microsoft Office***.

2) Click the **Word BI Publisher/Oracle Analytics Publisher** ribbon.

3) Click **Sample XML** to import your sample data and wait until the data is loaded successfully.

You can use the following option for each template:

- ▶ Add
- ▶ Modify
- ▶ Remove
- ▶ Download

Add

Use **Add** to upload the print layout and the translated XLIFF files. The XLIFF files are used for translation purposes. When you click Add, the "Add template and Files" window opens.

The "Add template and Files" window has two sections:

- ▶ Template
- ▶ Translated XLIFF files for the Template

Note: Required fields are marked with an asterisk (*), or a star.

Template

The Template section contains the following fields:

- ▶ **Template Name:** Enter a unique name for the template (use non-ASCII characters).
- ▶ **Template Type:** From the drop-down list, select a template type: RTF, PDF, Excel, or eText.
A Template Type can be changed if the template is in Creation stage. After it is created, the Template Type cannot be modified, and the custom print designer must create a template (of the desired type) and remove the one that is no longer required.
- ▶ **Layout File:** Browse to find and upload the layout files, based on the template type.

Translated XLIFF files for the Template

If you want to internationalize the product, then the translated XLIFF files can be uploaded, for the corresponding languages, in the Translated XLIFF filed for template section.

Note: The languages listed are the active languages selected by the administrator in the **Configuration - Internationalization** log.

Click **Apply** when finished.

When you open an existing Custom Print, the Template File tab lists all available templates. The first template is always marked as Default, but you can change the default template.

Modify

Use Modify to modify the existing print template and XLIFF files. You must select an existing file before you can proceed. When you click Modify, the "Modify Template and Files" window opens.

The "Modify Template and Files" window has two sections:

- ▶ Template
- ▶ Translated XLIFF files for the Template

Note: Required fields are marked with an asterisk (*), or a star.

Template

The Template section contains the following fields:

- ▶ **Template Name:** The unique name for the template.
- ▶ **Template Type:** This is pre-populated read-only field, based on the selected Template Type. A Template Type can be changed if the template is in Creation stage. After it is created, the Template Type cannot be modified, and the custom print designer must create a template (of the desired type) and remove the one that is no longer required.
- ▶ **Layout File:** Browse to find and upload the layout files, based on the template type. The original custom print file is displayed.

Notes:

- You can modify a BI Publisher/Oracle Analytics Publisher Custom Print template only if the status is set as "Draft."
 - You cannot modify a Data Source of a Custom Print template after the Custom Print template has been created.
 - You can modify the contents of the Description field at any time.
-

Translated XLIFF files for the Template

If you want to internationalize the product, then the translated XLIFF files can be uploaded, for the corresponding languages, in the Translated XLIFF filed for template section.

Click **Apply** when finished.

Remove

To remove a Custom Print template, select the template, and click **Remove**.

Note: To delete a Custom Print template, you can select the Custom Print template from the log and click Delete. You can delete a Custom Print template regardless of the Custom Print template status.

Download

The Download option lets you download the template and the corresponding translated XLIFF files. You must select an existing file before you can proceed.

When you click Download, a zip file is generated. The zip file name format must be:

Template_<Numeric part of report key>_<File Type>.zip

Example

Template_483_PDF.zip

You can copy a Custom Print template to use as a base for a new Custom Print template.

Note: After copying a Custom Print template, the term, "Copy of" appears at the beginning of the name of the new Custom Print template.

Custom Print Window (Sample Data tab)

You can use the Custom Print window Sample Data tab to download sample data for designing the custom print template file. You can use the XML data to design the print template file in the BI Publisher/Oracle Analytics Publisher.

The XML tags in the sample data are displayed for all the fields that are relevant to the selected data source. The XML tags are grouped according to the XML elements or data sets. The data sets displayed in the Sample Data tab are driven by the data source type. For a Workflow BP, the various elements are the upper forms, line items, workflow details, comments, and so forth.

- 1) In the Sample Data tab click **Generate**.
- 2) When finished, click **Download**.
- 3) Click **Apply**.
- 4) Click **OK**.

Creating Custom Email Template

To be able to create (or add) a custom email template:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Business Process**.
- 3) In the **Configuration - Business Processes** log, select your Workflow BP and click **Open**.
- 4) In the left Navigator, expand the **Customize Email** sub-node.
- 5) Click the **Content** sub-node to open the **Email Content** log.
- 6) Click **Create** to open the **Create Template** window.
- 7) Select your language and enter a name for the template in the **Name** field.
- 8) Compose your email body text, and, if applicable, double-click the necessary data elements, from the right pane (**Available Data Elements**), to include them in your email. You must manually enter the title of the DE. Use the elements of rich text editor in the body to create a custom email format. The list of DEs can be broadly categorized as:
 - ▶ Workspace and Workflow Information (Shell details, Workflow information, and Task assignee details)
 - ▶ Upper form details

See the **List of DEs and Categories** table below for details.

If the DE value is not present a blank value will be updated in the email content.

Use the **Find on Page** option to search for a particular DE.

The active languages appear in separate tabs, according to their order in the language log.

Select one of the following options, when finished:

- ▶ **Save**: To save your modified email in the log and keep the **Email Content** log open to conduct other operations.
- ▶ **Save and Close**: To save your modified email in the log and close the **Email Content** log.
- ▶ Use the **Cancel** option to discard your changes, if any, and return to the **Email Content** log.

To be able to modify a custom email template, follow the steps above to access the **Email Content** log, and then open the email that you want to modify and incorporate your changes. If there are several email templates in the **Email Content** log, you can use the **Find on Page** option to search and find the email template that you need.

Within the **Email Content** log, in the upper-right corner, the system displays the value of the maximum size of the outgoing email.

Note: Ensure that you keep the size of your emails <20% of the maximum size of the outgoing email.

The **Email Content** log displays the size of the email configured under each language on the right side of the window.

The custom email template will be available at the company-level (or global-level) when the Business Process Setup is made available at a shell-level template, similar to the setup of the custom email subject line. After the Business Process Setup, at the shell-level template, is complete, the email content template will become available in the **Notifications** tab of the Business Process Setup. When a task is created during the run-time, for a BP, the email generation appears per the custom format that was defined at the customize email content node, provided that the format is selected as default format. Email templates for multiple languages can be created in the same window.

If the size of the configured email template, for any language, exceeds the maximum set limit, or if the size falls between preferred size-range, an error or a warning message will be displayed respectively.

If you modify a template name, and the email is already in use, then the system changes the email name at the selection (BP Setup > **Notification** tab > any particular task type).

After you save a custom email, the system displays the record with log containing the following fields:

- ▶ **Name:** Name or title of the template.
- ▶ **Last Modified By:** Name of the user who last modified the template.
- ▶ **Last Modified:** Date when the template was last modified.
- ▶ **Active Languages:** Listed according to the order of the language log. If custom email content, for any language type, is defined, then the size of the email configured under each language is displayed in the log.

List of DEs and Categories

Task assignee	Sent From/Task From Sent To Task To (All assigned users in the To step of the task) Task CC (Where all CC users are fetched from the task assigned) Task Status Task Due Date
---------------	--

Workflow setup	Workflow Step Name Workflow Email Content
Shell	Shell Name Shell Number Administrator Hierarchy Path Environment Name

Additional Information

The general comments (any comments that have been added as a part of the record modification) are sent out as a part of the system default footer, for the email.

Also, the line items and attachments that have been added to a record will be included through a system-generated footer for the record modification emails. The following DEs are not included:

- ▶ <SOURCE_ID></SOURCE_ID>
- ▶ <STEP_ASSIGNEE></STEP_ASSIGNEE>
- ▶ <ASSIGNEE_COMPANY></ASSIGNEE_COMPANY>
- ▶ <STEP_STATUS></STEP_STATUS>
- ▶ <STEP_ACTION></STEP_ACTION>
- ▶ <STEP_COMPLETION_DATE></STEP_COMPLETION_DATE>
- ▶ <WORKFLOW_STATUS></WORKFLOW_STATUS>
- ▶ <WFTEMPLATE_ID></WFTEMPLATE_ID>
- ▶ <PROCESS_ID></PROCESS_ID>
- ▶ <TASK_NAME></TASK_NAME>
- ▶ <ACTION_NAME></ACTION_NAME>
- ▶ <ASSIGNED_FROM></ASSIGNED_FROM>
- ▶ <ASSIGNEE_COMPANY_1></ASSIGNEE_COMPANY_1>
- ▶ <TASK_COMPLETION_DATE></TASK_COMPLETION_DATE>
- ▶ <ASSIGNEE_ID></ASSIGNEE_ID>
- ▶ <TASK_NOTE></TASK_NOTE>
- ▶ <SUBWORKFLOW_NAME></SUBWORKFLOW_NAME>
- ▶ <SUBWORKFLOW_DUEDATE></SUBWORKFLOW_DUEDATE>
- ▶ <TASKNODEID></TASKNODEID>
- ▶ <ACT_STEPTEMP_ID></ACT_STEPTEMP_ID>

When you click **Create**, the system opens the first language tab, as listed in the language log. You can select any of the languages tabs and paste the content to be translated. You can also save an email format in multiple languages. At run-time, the custom email is drafted for the selected language, and if the custom email content is not present for the language, the system uses the system default format.

The user can select any of the created records and click **Delete** in order to delete the selected custom email format. If a selection includes a template which is being used, the system will display a confirmation message. The user can delete multiple templates at once. After a template is selected for deletion, the system automatically reverts the selected template to the system default.

The header and footer section of the custom email is autogenerated by the system and appended to the created custom email.

Use the Additional Information field that is available as one of the DEs like a note. The Additional Information field is configured at the email content section of the BP Setup.

You (the admin) can select the customized email format under the **Notification** tab of a BP Setup. Go to **Notification** tab, under **Custom Notifications** sub-section, click the drop-down option for each email type, and select the desired format. The name of the custom template defined is listed in the drop-down list.

If the user selects "Include both record and line item attachments" or "Include record information as attachment," the attachments will be sent as part of custom email.

The drop-down lists all the custom email formats defined at the customize mail Content node. The same format can be selected for all the task types. After it is selected, the user can click **OK** or **Apply** to save the changes. The selected format email is triggered when the user:

- ▶ Creates BP log, by way of create.
- ▶ Creates Project Tasks log, by way of create BP.
- ▶ Goes to the Home Tasks log, by way of create BP, in Project.
- ▶ Goes to the Document Manager, by way of create BP with attachment.
- ▶ Goes to the Query Based Tabs, by way of create.
- ▶ Initiates auto create.
- ▶ Wants to use the email for CSV uploads.
- ▶ Creates a task, by way of the Unifier Mobile App.

The subject line for email is either a system-default text, or a customized one which is defined under the **Customize Subject Line** node. You can also add data elements to the subject line of an email template. Do not modify the text of data element in the subject line after it has been added.

You (the admin) must assign the right user at each and every step of the workflow, to indicate the recipient of the notifications.

When the user has selected custom email for a particular task and the system does not generate a custom email (due to errors), the system sends a default email, automatically.

DEs of type Rich text are not available to be added in the email subject line configuration, or to be added to the custom email content.

Publishing BI Publisher/Oracle Analytics Publisher Custom Print

You must publish the BI Publisher/Oracle Analytics Publisher Custom Prints in the BI Publisher/Oracle Analytics Publisher Server.

To publish a Custom Print:

- 1) Prepare the custom print.
- 2) Click **Status**.

The status of a BI Publisher/Oracle Analytics Publisher Custom Print template is either set as Draft, or the status is set as Published. For either case, to print the Custom Print template, you must select Publish.

You can delete a Custom Print template regardless of the Custom Print template status.

- 3) Select **Publish**.

After you publish, the system performs validation and if there are no errors the system publishes the Custom Print template and assigns the new Published Date in the log.

Notes:

- If you remove the data elements from the design of the data source that has been used in the BI Publisher/Oracle Analytics Publisher Custom Print template, you must republish the Custom Print template to the BI Publisher/Oracle Analytics Publisher server.
 - If you add new data elements to the upper form, or detail form, of the BP Design, then to be able to see and use these new elements (of data schema) in the template, you must re-publish the Custom Print template and download a new copy of data schema.
 - You can update the Custom Print template layout by regenerating the sample data.
 - When the status of a Custom Print changes from "Draft" to "Published," the system generates the data model with respect to the current BP Design. As a result, if the BP design has changed between the time of first download of the Sample Data and the publishing of the Custom Print, the developed report Template must be tested again with the new Data XML.
-

Parameters for External Multiple Custom Print

The following is a list of parameters for the External Multiple type custom print that you must use in the data model to ensure that the **Bulk Action** (in Tasks and Business Processes logs) works properly:

Parameter Name	Description	Required	Comma-Separated Values
uuu_p_project_id	Contains the value of the Project IDs.	Yes	Yes
uuu_p_context_company_id	Contains the value of the customer's Company ID.	Yes	No
uuu_p_process_id	Contains the value of the Workflow Process IDs.	Yes Only for Workflow type business	Yes

Parameter Name	Description	Required	Comma-Separated Values
		processes.	
uuu_p_source_id	Contains the value of the Record IDs.	Yes	Yes
uuu_p_space_source_id	Contains the value of the space Record ID.	Yes Only for Space type business processes.	Yes
uuu_p_object_type	Contains the value of the business process ID in uDesigner.	Yes	No

Creating BI Publisher/Oracle Analytics Publisher Custom Report

To create a BI Publisher/Oracle Analytics Publisher *custom report* configuration:

- 1) In Unifier, go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Custom Templates**.
- 3) In the **Custom Templates - Current View: All** log, click **New**.
- 4) Select one of the following options to open the Custom Report window:
 - ▶ **Report with Internal Data Model**
 - ▶ **Report with External Data Model**

See the **Custom Templates (Custom Prints and Reports) Overview** (on page 216) section for details.

Note: Oracle only supports the delivery of BI Publisher/Oracle Analytics Publisher reports from P6 in PDF format by way of email.

Custom Report Window (General tab)

In the **General** tab, you can define the general custom report information.

- 1) Enter and select values in the following fields:

Note: Required fields are marked with an asterisk (*), or a star.

- ▶ **Name:** Enter a unique name for the custom report, up to 50 characters (use alphanumeric characters or spaces).
- ▶ **Description:** (Optional) Enter a brief description about the custom report.

- ▶ **Data Model Type:** This is pre-populated read-only field, based on the selected custom report type. The values can either be Internal or External, based on the option selected at the time of creating the custom report.
- ▶ **Report Level:** A drop-down list that lets you select *Project* for a project-level custom report, *Program* for a program-level custom report, or *Application* for an application-level custom report.
- ▶ **Main View:** A drop-down list that lets you select a data view to use as the main view of the custom report. The items in the drop-down list are populated with the data views that have been published.

Note: When you are selecting a Main View, ensure that you select a view that has the level-appropriate ID, as a column, in the view definition. For example, if you are selecting a Main View for a Program (report level), the view must have "program_id", as a column, in the view definition.

2) Click **Apply** to continue.

When you click Apply, the system processes the information that you have provided and prepares the custom report for publication. As a result of this process, two additional tabs are added to the Custom Report window that require your input:

- ▶ **Template File tab**
The Template File tab lets you upload:
 - ▶ Multiple templates for the custom report (RTF, PDF, Excel, eText)
 - ▶ Data model (.XDM) file (for report with external data model)
- ▶ **Sample Data tab**
The Sample Data tab lets you generate the sample XML data which you can use to create layouts for the *custom report*.

See the following topics for details:

- ▶ ***Custom Print Window (Template File tab)***
- ▶ ***Custom Report Window (Sample Data tab)***

Custom Report Window (Views tab)

On the Views tab, you can:

- ▶ Set the views used as data sets (Views used as data sets)
- ▶ Determine data links (Data links)

To set additional views, used as data sets:

- 1) On the Custom Reports window, click the **Views** tab.
- 2) In the "Views used as data sets" section click **Add** to add a new row to the Views list.
- 3) In the "View Name" column, from the drop-down list, select a view. The drop-down list displays the available *published* data views.

In the "View Type" column, double-click the entry to make the cell editable, and select a view type from the drop-down list. You can only select one view as the main view. The other views are sub-report views.

- 4) In the "Data Set Name" column, double-click the cell to make it editable, and enter the name of the data set to which this view should belong.
- 5) In the "Data Set" Tag column, double-click the cell to make it editable, and enter the tag for the data set.
- 6) To add another view, repeat steps 1 to 5.

You can enter any number of data views for a custom report and group them into data sets.

After you have specified the data views and grouped them into data sets, you can link one data set to another to extract related information from multiple sources.

For translation-related information about Oracle BI Publisher/Oracle Analytics Publisher Reports, see the *Unifier General Administration Guide*.

Note: For External Data Model based reports, you cannot add or remove views.

You can create only one link level; that is, you can create one "sub-link." You cannot create another link under a sub-link.

To determine data links:

- 1) In the Data links section of the window, click **Add** to open the Add Link window.
- 2) In the Source Data Set field, select the name of the data set you want to link to another set. The selection list shows the data sets you created in the upper section of the Views tab.
- 3) In the Source Element Name field, select the name of the field on the source data set that you want to map to the target data set.
The element data type must match the data type of the target element; for example, you must match an integer to an integer, a string to a string.
- 4) In the Target Data Set field, select the name of the data set the source data set should link to.
- 5) In the Target Element field, select the name of the field on the target set that the source element field should map to.
- 6) To add another link, click the **Add** button and repeat steps 2 to 5, or click **OK** to save the links the exit the Add Link window.
- 7) Click **Apply**, and click **OK** to exit the Custom Report window.

Example for creating a data link:

Row	View Name	View Type	Data Set Name	Data Set Tag
0	Invoices	Main View	inv	inv
1	InvoicesLI	Sub Report View	LineItem	LineItem

At this point, set the relationship between the Main View and the Sub Report View that you have added.

- 1) Go to the **Data Links** section and click **Add**.
- 2) Link the ID field from the Invoices Data View to the RECORD_ID field from the Invoices Line Item Data View.

Example

```
Source Data Set: inv
Source Element Name: INV_ID
Target Data Set: LineItem
Target Element: INV_LI_RECORD_NO
```

- 3) Click **OK** to add to add the link.
- 4) Click **Apply**.

Custom Report Window (Query tab)

When creating, you can specify two types of parameters before running a report:

- ▶ **Search Parameters**
Use these to filter the SQL results. Data View result rows that do not match the filter will not be sent from Unifier to BI Publisher/Oracle Analytics Publisher.
- ▶ **Additional Parameters**
Use these to pass additional parameters for BI Publisher/Oracle Analytics Publisher to consume at runtime. All values are sent from Unifier to BI Publisher/Oracle Analytics Publisher for further operation. See Parameters tab below.

Search Parameters

Search parameters allow the report runner to filter the data that gets sent to BI Publisher/Oracle Analytics Publisher. For example, a Contract Report may need to be filtered by Vendor or Contract Type. A Ball-in-court report may be filtered for a specific task assignee, or task type.

At runtime, the report runner can select or multi-select from a list of values based on the search parameters specified in the report configuration. This means that Unifier basically runs the Data View before the report is run to give the report runner a list of the SQL results. He or she can then select or multi-select values from this initial run to filter what will appear in the report output.

On this tab, you can add query parameters to the configuration. The query parameters are created on the columns of the main view, selected for the Custom Report. At runtime, these parameters appear in the Search Parameters block.

To add query parameters to the custom report:

- 1) On the Custom Reports window, click the **Query** tab.
- 2) Click the **Add** button. The Add Query window opens. Complete the window:
 - ▶ **Element Name:** Click the drop-down list and choose from the elements (all columns from the main view).
 - ▶ **Label:** Enter a label to use for the Element Name. This label appears to the user at runtime.
 - ▶ **Operator:** Select the appropriate operator to use for the query. The operators will depend on the data type of the element chosen.

- ▶ **Source Type:** This is the source of the value. Choose one of the following:
 - **Data Definition:** Lets you choose a data definition. The following field becomes available:
 - **Select Definition:** Select from the drop-down list. The list displays data definitions defined in the company that apply to the type of element chosen. (For example, if you choose a drop-down [pull-down] or radio button, the data set values defined for the data definition will be displayed to the user at runtime.) This lets you use existing data definition values, rather than entering them manually (see Ad Hoc below).
 - **View:** Lets you compare columns in your current view against another view chosen here. The following fields become available:
 - **Select View:** Lists all published data views. Choose the view to compare.
 - **Value Column:** Lists the columns for view chosen in Select View. This is the column that will be compared.
 - **Label Column:** What you choose here will be displayed to the user at runtime.
 - **Context Sensitive:** If this check box is selected, the results will automatically apply the filter for project_id at runtime (results will be for the current project only).
 - **Ad Hoc:** Allows user to select values in User mode from selection list. If you choose this option, you must specify the list of values here. This is similar to defining a data definition data set.
 - Click the **Add** button. The Ad Hoc window opens.
 - Click **Add**. A new row is added.
 - Enter a **Value** and **Label**.
- 3) You can modify the query parameters by doing the following:
- ▶ Delete a row by selecting it and clicking **Remove**.
 - ▶ Modify parameter by selecting a row and clicking **Modify**.
 - ▶ Change the order of the query parameters (as they appear in User mode), by selecting a row and clicking **Move Up** or **Move Down**.
- 4) When done, click **Apply** to save changes. You can click **OK** to save and exit, or click another tab to continue to define the configuration.

Custom Report Window (Parameters tab)

If the report designer has defined a formula using parameters with the same name that was used in the Parameters tab, then it will be displayed on the report at runtime. In User mode, these parameters appear in the Additional Parameters block.

Additional Parameters

Additional parameters allow the report runner to specify parameters that can be used at report runtime to alter how the data is displayed.

Unlike Search Parameters:

- ▶ Additional Parameters only support entering text. You cannot select or multi-select values from Unifier.

- ▶ Additional Parameters allow us to specify a default value so that the user only needs to change the value if needed.

A good example of where to use Additional Parameters is for calculations, for example, when you enter a target future exchange rate. You can also use Additional Parameters for conditional highlighting so that only rows over/under a certain value are highlighted.

Note: In the Conditional Formatting section, you must hard-code a value (for example, 10,000).

To add additional parameters to the custom report:

- 1) On the Custom Reports window, click the **Parameters** tab.
- 2) Click **Add** to add a new row. Enter the following information.
 - ▶ **Editable:** If this check box is selected, the field will be editable in User mode. If not, the field is read-only.
 - ▶ **Hidden:** If selected, the field will be hidden in User mode. The report may still use the parameter at runtime, depending on the design.
 - ▶ **Name:** Double-click in the field to make it editable. The Name entered here must match the parameter name used in the BI Publisher/Oracle Analytics Publisher report. The behavior and default values for the parameters specified here can be applied automatically to the report at run time.
 - ▶ **Label:** Defines the label of the parameter field in User mode.
 - ▶ **Default:** You can enter a default value that will be used in User mode.
- 3) To delete a row, select it and click **Remove**.
- 4) Click **Apply** to save changes. You can click **OK** to save and exit or click another tab to continue to define the configuration.

Predefined BI Publisher/Oracle Analytics Publisher Parameter Examples

The name for a Parameter is mapped to a BI Publisher/Oracle Analytics Publisher parameter based on the format: :uuu_p_{Parameter Name}

Note: Ensure the length of {Parameter Name} is less than 24 characters.

Any parameters created on the Parameters tab also need to be appropriately added into the Parameters tag in the .XDM file.

Predefined Unifier Parameters

Predefined parameters are reserved for Unifier to pass the runtime values to BI Publisher/Oracle Analytics Publisher runtime context.

Here is example from a XDM file.

```
<parameters xmlns="http://xmlns.oracle.com/oxp/xmlp">
...
  <parameter name="uuu_p_context_project_id" dataType="xsd:string"
rowPlacement="7">
    <input label="context project id" size="10"/>
  </parameter>
</parameters>
```

```
</parameter>
<parameter name="uuu_p_context_program_id" dataType="xsd:string"
rowPlacement="8">
  <input label="context program id" size="10"/>
</parameter>
<parameter name="uuu_p_reportByF" dataType="xsd:string"
rowPlacement="9">
  <input label="uuu_p_reportByF" size="20"/>
</parameter>
<parameter name="uuu_p_timeZoneF" dataType="xsd:string"
rowPlacement="10">
  <input label="uuu_p_timeZoneF" size="20"/>
</parameter>
<parameter name="uuu_p_diffMinutesF" defaultValue="0"
dataType="xsd:string" rowPlacement="11">
  <input label="uuu_p_diffMinutesF" size="20"/>
</parameter>
<parameter name="uuu_p_sysyTimeZoneID" dataType="xsd:string"
rowPlacement="12">
  <input label="uuu_p_sysyTimeZoneID" size="20"/>
</parameter>
<parameter name="uuu_p_searchConditionF" dataType="xsd:string"
rowPlacement="13">
  <input label="uuu_p_searchConditionF" size="50"/>
</parameter>
<parameter name="uuu_p_urlF" dataType="xsd:string" rowPlacement="14">
  <input label="uuu_p_urlF" size="40"/>
</parameter>
<parameter name="uuu_p_sessionIdF" dataType="xsd:string"
rowPlacement="15">
  <input label="uuu_p_sessionIdF" size="50"/>
</parameter>
<parameter name="uuu_p_companyRegistryF" dataType="xsd:string"
rowPlacement="16">
  <input label="uuu_p_companyRegistryF" size="50"/>
</parameter>
```

The following is an example for how to use the predefined BI Publisher/Oracle Analytics Publisher Parameters to display an image in the Report layout:

- 1) Create Form fields in the .rtf.
- 2) In the `HelpText` of the form field, define variable matching the parameter names used in the image URL.
- 3) Right-click the dummy image and select **Size** (and its **AltText**), then enter the following content:

```
url:{concat($uuu_p_urlF,'companyRegistry=', $uuu_p_companyRegistryF, '&sessionId=', $uuu_p_sessionIdF, '&id=', PROJECTIMAGE)}
```

Note: The `uuu_p_*` are the predefined parameters in the data model. They are also the variable names defined in the RTF form fields. The `PROJECTIMAGE` is the element for image file ID from Unifier.

In the `HelpText` of the form field enter:

```
<?variable@begin:uuu_p_urlF;(./uuu_p_urlF)[1]?>
```

Custom Report Window (Template File tab)

The **Template File** tab lets you upload:

- ▶ Multiple templates for the custom report (RTF, PDF, Excel, eText).
- ▶ Data model (.XDM) file (for report with external data model)
- ▶ XLIFF translation files

Use this tab to add, modify, remove, or download files and click **Apply** when finished.

You can build a Rich Text Format (RTF) report template and upload the template to your Custom Report in Unifier.

To create a simple RTF template:

- 1) Open Microsoft **Word**.
The application must have the Microsoft Word BI Publisher/Oracle Analytics Publisher plug-in installed. See **Download and Install BI Publisher/Oracle Analytics Publisher Desktop for Microsoft Office**.
- 2) Click the **Word BI Publisher/Oracle Analytics Publisher** ribbon.
- 3) Click **Sample XML** to import your sample data and wait until the data is loaded successfully.

Note: You may need to complete the **General** tab first and click **Apply** before this tab appears.

Custom Report Window (Sample Data tab)

The Sample Data tab lets you generate the sample XML data, which you can use to create layouts for the custom report. In the case of an external data model-based report, the report must have been published to the BI Publisher/Oracle Analytics Publisher server at least once before the sample XML data can be generated.

Note: Depending on the Report Level that you have selected in the General tab, the fields and selections in this tab change.

- 1) In the Sample Data tab select a sample, determine the number of rows that you want to see, and click **Generate**.
- 2) When finished, click **Download**.
- 3) Click **Apply**.
- 4) Click **OK**.

Download and Install BI Publisher/Oracle Analytics Publisher Desktop for Microsoft Office

To download and install BI Publisher/Oracle Analytics Publisher desktop for Microsoft Office:

- 1) Download **Oracle BI Publisher/Oracle Analytics Publisher Desktop for Microsoft Office** from: <https://www.oracle.com/middleware/technologies/analytics-publisher/downloads.html>
Ensure that you choose the BI Publisher/Oracle Analytics Publisher Desktop version (32bit vs. 64bit) based on your version of Microsoft Office 32-bit or 64-bit.

Note: If your Microsoft Word executable is found at `C:\Program Files (x86)\Microsoft Office\Office12\WINWORD.EXE`, you have the 32-bit version).

- 2) Run the installer.

No additional setup is required after running the installer. To ensure that the installation was successful, check to see that the plug-in has been added to your Microsoft Word user interface. The BI Publisher/Oracle Analytics Publisher ribbon appears after launching Microsoft Word.

(Optional) SQL Text Editor

When you start to write more complex reports, having a text editor that highlights SQL keywords can make a significant difference. For your needs, a simple editor such as Notepad++ would suffice. Ensure that you set the Language to SQL. You can copy the queries developed through the text editor and paste them into the Data View window.

(Optional) SQL Developer

You can download Oracle SQL Developer from:

<http://www.oracle.com/technetwork/developer-tools/sql-developer/downloads/index.html>

- 1) Download the first option in the list: Windows 64-bit - zip file includes the JDK 7
- 2) Extract the file onto your computer (for example, `C:\Oracle\sqldeveloper\`).
- 3) Run **sqldeveloper.exe**.

Building Report Template (RTF)

You can build a Rich Text Format (RTF) template and upload the template to your Custom Report in Unifier, and generate live reports.

Using Invoice as an example, the following explains how to build a simple RTF template (non-tabular report).

To create a simple RTF template:

- 1) Open Microsoft **Word**.

The application must have the Microsoft Word BI Publisher/Oracle Analytics Publisher plug-in installed. See **Download and Install BI Publisher/Oracle Analytics Publisher Desktop for Microsoft Office**.

- 2) Click the **Word BI Publisher/Oracle Analytics Publisher** ribbon.
- 3) Click **Sample XML** to import your sample data and wait until the data is loaded successfully.

Note: Alternatively, you can use a template file (for example, A Word template file from your customer).

- 4) Click **Repeating Group** to generate a loop on each Invoice. The Repeating Group window opens.
- 5) In the **For Each** field, enter a value in the Data Set Name for each of the Invoices that you chose, when defining your Custom Report (for example, inv). This does not apply to the Invoices Line Items.
- 6) In the **Group By** field, select a field for your Invoice loop. Use the `INV_ID` because it is a unique identifier for each Invoice.
- 7) (Optional) Insert a page break after each Invoice to keep your report formatted.
- 8) (Optional) Select the Data already sorted option. You can select this option because you have already sorted your data in your SQL statement, using: ORDER BY.
- 9) Click **OK**.
The BI Publisher/Oracle Analytics Publisher plug-in application adds a code to the document which includes: a start (for-each), a page break (page break), and an end (end) for your Invoice loop.
- 10) Add a blank line after "for-each" operator to make room for your Invoice information.
- 11) Click the field icon (**ab|Field**) to open the field browser.
The field browser window lets you add fields from your XML sample data file.
- 12) After each "for-each" operator, double-click **Inv_Record_No** in the field browser.
- 13) Add a hyphen (-) [n-dash] after the record number.
- 14) Double-click **Inv_Title** to add the Invoice title.

Example

```
for-eachINV_RECORD_NO-INV_TITLE
```

```
page breakend
```

- 15) (Optional) Run the report by clicking PDF on the Word BI Publisher/Oracle Analytics Publisher Ribbon (Word will prompt you to save your RTF file if you have not done so).

The first report is now ready.

The report only has the Invoice record number and title for each Invoice in your sample XML (the approved and pending ones because: `WHERE inv.STATUS = 'Approved' OR inv.STATUS = 'Pending'` in our SQL statement).

You can continue to build on the generated report by adding additional fields from the Upper Form of the Invoices BP, as well as headers, footers, formatting, and so forth.

Creating a Report with Line Items

You can use the Table Wizard to create a report with all the Line Items.

Using Invoice as an example, the following explains how to create a report with Line Items:

- 1) Add a blank line after `for-eachINV_RECORD_NO - INV_TITLE` operator and leave your cursor.
- 2) Click **Table Wizard** on the Word BI Publisher/Oracle Analytics Publisher Ribbon.
- 3) Select **Table** as your Report Format and click **Next**.
- 4) Select **/DATA_DS/Inv/LineItem** as your Data Set (or the name that you had given your Line Item data set).
- 5) Select the fields that you want to add to the table. Because this is for the Invoice line items, you must only add fields that are specific to the line items.

If you must add a field for "group on" (for example, `Inv_Li_Record_No`), the grouping process is similar to the process explained in the preceding section. Because you have grouped the records by Invoice in the preceding section, you can leave the value blank.

The order of the selected columns must match the order that you want in your table, except for the column that you use for grouping, which is outside the table. In the "Which fields do you want to show in your report" window, match the order as shown here:

```
Inv Li Record No --> In Li Record
Inv Li No --> Inv Li No
Inv Li Desc --> Inv Li Desc
Inv Li Unit Price --> Inv Li Unit Price
Inv Li Quality --> Inv Li Quality
Inv Li Amount --> Inv Li Amount
Inv Li Uom --> Li Uom
Code --> CodeInv
Item --> Item
```

- 6) In the "How would you like to group your report" window, leave every option as is because you have already grouped your data by Invoice in the preceding section.
- 7) In the "Which fields would you like the user to sort the data" window, within each table, sort the lines by `Inv_Li_No` (Invoice Line Item Number). Specify that this is a Number so that it is sorted correctly.
- 8) Click **Finish**.

The Table Wizard inserts the table and the necessary code:

for-eachINV_RECORD_No - INV_TITLE

Inv Li No	Inv Li Desc	Code	Item	Inv Li Quantity	Inv Li Uom	Inv Li Unit Price	Inv Li Amount
F INV_LI_NO	INV_LI_DESC	CODE	ITEM	INV_LI_QUANTITY	INV_LI_UOM	INV_LI_UNIT_PRICE	INV_LI_AMOUNT

page breakend

You must run the report to see what information is generated. While the data is correct, you must work on formatting the data. For details, see **Formatting Data**.

Formatting Data

To format the data generated:

- ▶ Provide a descriptive text (not SQL column names) for Column titles.
- ▶ Adjust the Column widths.
- ▶ Apply general table coloring (borders and shading, font sizes, cell alignment, and so on).
- ▶ Ensure that the "dollar" format is used for the two price columns (for example, \$110.00). See the details that follow.
- ▶ Add useful information, from the Upper Form of the Invoice, above the table. See the details that follow.
- ▶ Provide a "Total" for the amount column. See the details that follow.

When you are finished, generate a PDF and repeat the process if necessary.

To change the formatting of the Price & Amount columns (for example, 110.0 > \$110.00):

- 1) Double-click **INV_LI_UNIT_PRICE** (the code under the Unit Price field) to launch its BI Publisher/Oracle Analytics Publisher properties.
- 2) Change the Formatting Type to **Number**.
- 3) Set the Formatting Format to **#,##0.00;(\$#,##0.00)** (paste in the blue text).
- 4) Repeat the preceding steps for the Amount column.

To add useful information, from the Upper Form of the Invoice, above the table:

Note: Tables are an efficient formatting tool for organizing data from the Upper Form. Include separate columns for the field name (align right) and the field value (align left). You can also hide the borders if you prefer.

- 1) Create a 4-row and 2-column table and add field names.
- 2) Place your cursor where the first inserted field value must be entered.
- 3) Click the field icon (**ab|Field**) to open the field browser and add fields from your XML sample data.

- 4) Add useful information such as Creator, Email, and Status (or other fields you added to your SQL statement) above your Line Item Table.
- 5) Double-click the correct field value from the Field window to add the Title to the report (for example, add Invoice title in the Title field).

To provide a "Total" for the amount column, using Invoice as an example:

- 1) Right-Click somewhere in the last row of your Invoice Line Item table and select **Insert > Insert Rows Below**.
- 2) Highlight all the columns in the new row, except for the last one, and **Merge** the cells (from the right-click menu).
- 3) Click in the newly created cell and enter: Total
- 4) Right-align the cell.
- 5) Place your cursor into your last column of the new row.
- 6) Click the field icon (**ab|Field**) to open the field browser and add fields from your XML sample data.
- 7) Click **Inv_Li_Amount** column to highlight.
- 8) Set the calculation (at the bottom) to **Sum**.
- 9) Click **Insert** to add the calculation into the table.
- 10) (Optional) Select the Total row and make the text bold.

Adding Summary Page to Report

Your report lists details. The Summary page contains a table with a summary of all the details (for example, Invoices) as well as charts to add graphical information.

To add a summary page to your report, using Invoice as an example:

- 1) Add Project information.

In preceding sections, you have set your template to loop through each Invoice. To create a summary page, you must include the following information:

- a. Using Word, insert a page break before the "for-each code" at the top of the document. Do not use the page break command in BI Publisher/Oracle Analytics Publisher.
- b. Add a title to the Summary page (for example, Invoice Report).
- c. Click the field icon (**ab|Field**) to open the field browser and add information about the project, if you have not done so in your SQL statement.
- d. Add additional information about the Project below the title (in a table), such as the Project number, Project name, Start/End dates, and Initial/Revised budgets.
- e. Format dollar values as numbers with the formatting **\$\$,##0.00;(\$,##0.00)**. You can format dates as type Date using date formatting options such as: MM/dd/yyyy

- 2) Add Summary table.

A summary table contains the Invoice data that goes in the report. You can use the Table Wizard, similar to the process in the "Creating a Report with Line Items" section.

- a. Place the cursor on a new line under the table on the title page, where you want your table of Invoices to appear.
- b. Click **Table Wizard** on the Word BI Publisher/Oracle Analytics Publisher Ribbon.

- c. Select **Table** as your Report Format and click **Next**.
- d. Select **/DATA_DS/Inv** as your Data Set (or the name you used in your Invoice data set).
- e. Select the fields that you want to add to the table. Because this is for the Invoice, you must only add fields that are specific to the Invoices and not the Invoices Line Items.
You do not need to group because your SQL statement provides one line per Invoice.
- f. Sort by Invoice Record Number, in the "Which fields would you like to use to sort the data?" window.
- g. Click **Finish**. The Table Wizard inserts the table and the necessary code.
- h. Format the data. For details, see **Formatting Data**.

Adding a Chart

Using Invoice as an example, you can include a chart in the summary page to demonstrate how the Invoices are split.

There are several chart types available in BI Publisher/Oracle Analytics Publisher. The following is for creating a Pie-chart.

To add a pie chart:

- 1) Place the cursor above the summary table. The goal is to include the chart between the Project summary table and Invoice summary table because the table can get long and expand to the next page.
- 2) Click **Chart** on the Word BI Publisher/Oracle Analytics Publisher Ribbon.
- 3) Set the **Chart Type** (on the right) to **Pie Chart**.
- 4) (Optional) Select one of the Chart Styles.
- 5) Drag **Inv_Amount** from the Data tree to the Values box to ensure that the size of each pie slice is determined by the dollar amount of the Invoice.
- 6) Drag **Inv_Title** from the Data tree to the Labels box to ensure that the:
 - ▶ Pie slices are determined by Invoice
 - ▶ Invoice Title appears in the legend
- 7) (Optional) Click **Preview** (upper-right corner) to see a preview of the chart and make changes if necessary.
- 8) (Optional) Use the Properties table on the right side to set Chart Title, Legend properties, and so on.
- 9) Click **OK**. You change the chart settings by double-clicking the chart in the template.
- 10) (Optional) Add spacing between the chart and the two tables and center-align the chart.

Adding Headers and Footers

Use a 3-column table in the header and footer of your template to allow for a uniform adjustment of items such as titles, logos, and page numbers. Use Microsoft Help to learn how to add the first page to your document that does not include Header or Footer.

Adding Images from Unifier

Note: Microsoft Word does not support form fields in the header and footer. If need to add an image to the header or footer of your Custom Report and you want the image to repeat on each page, see the "Adding BI Fields to the RTF Header or Footer" section.

To add an image (examples: Company logo, Shell image, or image picker from a BP record: jpg, gif, or png) from Unifier into your Custom reports, use the Sample XML file (Sample Data) that you have created and exported.

Note: Company logo cannot be displayed in Unifier interface. Create a company-level business process to place your Company logo.

The following shows the procedure by using an example:

- 1) Open the XML file.
- 2) On top, identify the XML elements that are blank (shown in **bold** in the following code).

```
<?xml version="1.0" encoding="UTF-8"?>
<DATA_DS>
<uuu_p_reportByF></uuu_p_reportByF>
<uuu_p_timeZoneF></uuu_p_timeZoneF>
<uuu_p_diffMinutesF>0</uuu_p_diffMinutesF>
<uuu_p_sysyTimeZoneID></uuu_p_sysyTimeZoneID>
<uuu_p_searchConditionF></uuu_p_searchConditionF>
<uuu_p_urlF></uuu_p_urlF>
<uuu_p_sessionIdF></uuu_p_sessionIdF>
<uuu_p_companyRegistryF></uuu_p_companyRegistryF>
<inv>
  <PROJECT_ID>1012</PROJECT_ID>
  <INV_ID>1</INV_ID>
  <INV_RECORD_NO>INV-001</INV_RECORD_NO>
  <INV_TITLE>Lumber Contract - Initial Invoice</INV_TITLE>
  <INV_STATUS>Approved</INV_STATUS>
```

Note: At runtime, these blank elements are fully populated with information about the server base URL, the User's session ID, and the company registry.

- 3) Using the included parameters, plus the ID of a specific image (the image that you want), construct a URL of the format:

```
<uuu_p_urlF>CompanyRegistry=<uuu_p_companyRegistryF>&sessionId=<uuu_p_sessionIdF>&id=<image_ID>
```

Note: To build a similar URL in your BI Publisher/Oracle Analytics

Publisher report, ensure that you have the Image ID because the other three parameters have already been identified.

- 4) Access the Image ID of the image that you want and:
-

Note: If applicable, you can find the Company logo Image ID in the companylogo column of the table sys_company_info.

- a. JOIN the information into your existing Data Views.
or
b. Add the information as a new Data View, which you can add as a Sub-Report View to any Custom Report. The SQL to create a Data View:

```
SELECT companylogo
FROM sys_company_info
WHERE companyregistry = 'unifier';
```

- 5) Define the variables:

After you have an Image ID, you must define the variables needed to build the image URL by hiding the variables in a Data Field:

- a. Add a data field somewhere at the top of your report. This can be any field. You only need a placeholder for your variables.
b. Double-click the newly added data field and click the **Advanced** tab. Delete the text in the code box, if any.
c. Add the following text into the code box:

```
<?variable@begin:uuu_p_urlF;(./uuu_p_urlF)[1]?>
<?variable@begin:uuu_p_companyRegistryF;(./uuu_p_companyRegistryF)
)[1]?>
<?variable@begin:uuu_p_sessionIdF;(./uuu_p_sessionIdF)[1]?>
<?variable@begin: image;(./DATA_DS/co/COMPANYLOGO)?>
```

Notes:

- If you are adding a Shell image or Image Picker Data Element, you do not need that last line. Add the last line only if you have created a Company log Data View (If applicable, you can find the Company logo Image ID in the companylogo column of the table sys_company_info).
 - The example code presumes that you added an unlinked Sub Report View with the Data Set Tag "co" (for Company). You can change the Data Set Tag "co" (for Company) to the value that you have in the last column of Company Logo row in the Views used as data sets table on the Views tab of the Custom Report dialog.
 - If you want to insert the Project Shell ID, you must access that variable. Depending on where you are in your grouping, the variable can be: <?variable@begin: image;(SHELLIMAGE)[1]?>
-

To access the Project/Shell Image ID:

- 1) Go to table: **unifier_shell_info**.
- 2) Identify the **shellimage** column of the table. The Project/Shell Image ID is in the shellimage column.

You can JOIN this table to your main report view based on the **unifier_shell_info.pid** column, which contains the project ID.

After you defined your variables, you can add an image. The BI Publisher/Oracle Analytics Publisher leverages the Alternative Text of an image to dynamically set the image source. For more information, refer to the *Report Designer's Guide for Oracle Business Intelligence Publisher* or the *Using Oracle Analytics Publisher in Oracle Analytics Server* guide.

To add a dummy image:

- 1) Create an image (for example, Dummy_Image.jpg) and size it appropriately (for example, 300 x 200 px).
- 2) Right-click the image and select Size...
- 3) Click the Alt Text tab of the Size dialog.
- 4) Paste the following into the Alternative Text box:
`url:{concat($uuu_p_urlF, 'companyRegistry=', $uuu_p_companyRegistryF, '&sessionId=', $uuu_p_sessionIdF, '&id=', $image)}`

Note: The last parameter (\$image) was set as a variable to either the Company logo or the Project/Shell image. You must adjust the parameter if you want to include both images. Ensure that you use separate variable names for each.

To test an image:

The three parameters that you used to build your URL to the image are not downloaded as part of the sample data:

```
uuu_p_urlF
uuu_p_sessionIdF
uuu_p_companyRegistry
```

You must upload your RTF template to Unifier, publish the Custom Report, and then run the report to ensure that your image was inserted successfully.

Adding BI Publisher/Oracle Analytics Publisher Fields to RTF File Header or Footer

Microsoft Word does not support form fields in the header and footer. As a result, you must populate the headers and footers with text or images from Unifier. For more information, see the *Report Designer's Guide for Oracle Business Intelligence Publisher* or the *Using Oracle Analytics Publisher in Oracle Analytics Server* guide.

To populate the headers and footers with text or images:

- 1) At the top of the RTF template (in the body, not the header), place the following tags:
`<?template:header?>`
`<?end header?>`

- 2) These tags form the start and end of your header. In between them, place the text and images you want to include in the report header.
- 3) Double-click into the header of the document. Ensure that none of the BI Publisher/Oracle Analytics Publisher fields are highlighted.
- 4) Add the text: `<? call@:header?>` to place everything in the tags added above into the header at report runtime.

Importing a Template

After you have created your template, you can upload it into Unifier.

To upload your template:

Note: Invoices is used as an example.

- 1) Sign in as a Company Administrator.
- 2) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 3) In the left Navigator, click **Configuration > Custom Reports**.
- 4) Open your Invoices Custom Report.
- 5) In the **Report File** tab (consisting of Add, Modify, Remove, and Download options)
 - a. Click **Add** to open the template window.
 - b. Enter information in the following fields: Template Name, Template Type, and Report Layout File.
 - To localize the Custom Report output for different languages, you can provide XLIFF files for RTF-type templates here.
 - The Template Name field accepts spaces and other characters.
 - c. Click **Browse** to select the template file for uploading.
 - d. Click **OK** to confirm the upload.
- 6) Click **Browse** and upload the RTF file.
- 7) Click **OK** to close the window.
- 8) **Publish** your report by selecting your report from the log and selecting **Status > Published** from the toolbar.

Your report is added to the list and Users can access the report from Projects, if they have the appropriate permissions.

Adding a Report to Navigator

To add your report to the Navigator:

- 1) Sign in as a Company Administrator.
- 2) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 3) In the left Navigator, click **Configuration > User Mode Navigator**.
- 4) Open your Project/Shell Navigator. You must be able to see your Custom Report on the right side. If you do not see your Custom Report, ensure that you have published the report. See **Importing a Template**.

- 5) Add your Custom Report to the Reports section on the left side (in the Navigator, you can create a subfolder under Reports called Advanced Reports).
- 6) Click **OK** to close the window.
- 7) Deploy the Navigator by highlighting it and clicking **Deploy** from the toolbar.

Setting Permissions on Report

You must give permissions to users so that they can run the new, custom report.

You can give permissions using a Project template (to distribute the permission to all projects), or do it on case-by-case bases, one project at a time.

To set permissions:

- 1) Sign in as a Company Administrator.
- 2) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 3) In the left Navigator, click **Company Sponsored Shells > Projects**.
- 4) Find your project (the project that you want to add the Custom Report to) and open it.
- 5) Open the **User Administration** grouping node and click **Access Control**.
- 6) Go to the Custom Report, and click the report to open the Permission Settings window.
- 7) Add View access for any Users or Groups that you want to be able to run the Custom Report in your project.

Repeat the preceding steps if you want to add your Custom Report to other projects.

Running the Report

To run your Custom Report:

- 1) Navigate to your Project that has your Custom Report (for example, the Project with Invoice BPs created and in an approved or pending state)
- 2) Run the report.

Advanced BI Publisher/Oracle Analytics Publisher Functions

The following topics explain the advanced functions of the BI Publisher/Oracle Analytics Publisher.

Conditional Formatting

With BI Publisher/Oracle Analytics Publisher, it is easy to use conditional formatting to highlight table cells or entire table rows using conditional formatting.

Example

Highlight invoices with an amount over \$10,000.

Highlighting a Table Cell

- 1) After you create a table, place the cursor in the cell where you want to apply conditional formatting.

Note: The cell must be either text or a Data Field.

- 2) Click **Conditional Format**. The BI Publisher/Oracle Analytics Publisher Properties window open on the Properties tab.
- 3) From the Data field drop-down list select the data element that you want to evaluate to determine the conditional highlighting. This does not need to be the same data field in the cell that you are trying to highlight.
- 4) Specify whether that Data Field is a Number or Date/Text Field.
- 5) Enter the conditions for this Data Field using the pertinent drop-down list.
- 6) For each condition, specify the formatting that you want to be applied when that condition is met.

Only two conditions can be entered by using this window. If you have more than two conditions, you can click the Advanced tab and copy/paste the conditions already entered to create additional conditions. Ensure that you copy an entire "if" statement, up to and including the "<?end if?>"

Example

```
<?if:number(INV_AMOUNT)>10000?><?attribute@incontext:background-color; '#FFB9B9'?><?end if?>
```

Highlighting an Entire Table Row

To highlight an entire table row, follow the preceding instructions; however, ensure that you select **Apply to Entire Table Row**.

Publishing BI Publisher/Oracle Analytics Publisher Custom Report

To publish a BI Publisher/Oracle Analytics Publisher Custom Report:

- 1) Prepare the custom report.
- 2) Click **Status**.
- 3) Select **Publish**.

Making a New Custom Report Appear in Navigation

If you must change the location of BI Publisher/Oracle Analytics Publisher custom reports, follow these steps to make newly defined reports appear:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**.

Note: If the company uses the default **User Mode Navigator** (that is, the company has not defined a custom **User Mode Navigator**), you will be able to see the report name under **Access Control** of the project.

- 3) Open the project/shell **User Mode Navigator**.

- 4) In the dialog box, find the newly created BI Publisher/Oracle Analytics Publisher reports on the right side and move them to a desired location in the left Navigator.
- 5) Save the changes and close the window.
- 6) Select the project/shell **User Mode Navigator** and click the **Deploy** button to ensure the changes take effect.
- 7) After deploying the navigator, sign out and then sign in, go to **Access Control**, and assign permissions for the new custom report.

Note: BI Publisher/Oracle Analytics Publisher User Group requirement:
To be able to create reports, users must be added to BI Publisher/Oracle Analytics Publisher Author user group in the Primavera Administration Application.

Setting Permissions for Custom Reports

To set permissions for Custom Reports:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **User Administration > Access Control**.
- 3) In the **Access Control** window, complete the following:
 - ▶ If the reports are at the Program level, in the right pane, select **User Mode Access > Programs > Reports > Custom > <report name>**.
 - ▶ If the reports are at the Project level, in the right pane, select **User Mode Access > Projects/Shells > Reports > Custom > <Report Name>**.
- 4) Select the access for the appropriate user.
- 5) Click **OK**.

Notes:

- A user with the configure permission to the **Custom Report** node, can configure custom print templates. There are no separate permissions for performing actions on the custom print templates.
 - If you have a **User Mode Navigator**, you must include the **Custom Report** in the navigator and redeploy before the user can assign permission through **Access Control**.
-

Running a Report

To run the BI Publisher/Oracle Analytics Publisher Report in Unifier:

- 1) Sign in to your Unifier environment.
- 2) Select a project/shell.
- 3) Ensure you are in **User** mode.
- 4) Under the Project/shell navigation tree, select **Reports, [Custom node]**.
- 5) Select a report and a dialog box will open.

- 6) In the dialog box, enter the Template and Format, enter the Search Parameters, and click **Run Report** to run the report.

Uploading a Template for External Data Model Type Custom Report

To upload a template for External data model type custom report:

- 1) In the Report file tab, click the **Add/Modify** button.
- 2) Click the **Browse** button, navigate to the .XDM file you want to use for the data model, and click the **Upload** button.

The system uploads the data model for the report to the BI server.

- 3) (Optional) To modify the data model, you can download it to your local drive by clicking the **Download** button.
- 4) Click **OK**.

You must upload the Data Model file (.XDM) from the custom report **Template File** tab, using the following parameters:

- ▶ `uuu_p_project_id`
Project ID
- ▶ `uuu_p_context_company_id`
Company ID
- ▶ `uuu_p_process_id`
Workflow process ID
- ▶ `uuu_p_source_id`
Business process record ID
- ▶ `uuu_p_object_type`
Business process ID as in uDesigner
- ▶ `uuu_p_hide_task_details`
To hide the task status if the user does not have permission. The value of 0 is passed if the user does not have permission to view the task statuses.
- ▶ `uuu_p_hidden_comments`
To view the hidden comments if the user has the permission. The value of 1 is passed if the user has the permission to view hidden comments.

These parameters are used to pass information from the Unifier runtime to the BI Publisher/Oracle Analytics Publisher server (integration at runtime).

Downloading Sample XML Data for Designing New Templates

This part of the **Sample Data** tab is for downloading sample data to use in designing a new report template file. You can download data from a specific project.

To download sample XML data for designing new templates:

- 1) (Optional) In the **Sample Project** field, select the project/shell data you want to generate.
If you do not specify a sample project/shell, the system will use data from the main view that was specified on the Views tab.
- 2) In the **Number of rows to return** field, specify the number of rows of data you want to use for designing the template.
- 3) Click the **Generate** button. This button is disabled in case of external data model report until the report has been published at least once.
The system generates a random sample of the XML from the Sample Project, or the main view of data.
- 4) Click **OK**.
You can then use this XML data in BI Publisher/Oracle Analytics Publisher to design the template file.

Modifying Existing XDM for Custom Report or Custom Print Configuration

Changes to the Data view, Data Set, Query and Parameters are not applied to the XDM file by the system. Users need to apply those changes manually to the XDM file.

Data View

If a data view is changed, it may require a modification in the XDM file. For instance, if a new column is added and it is required in the layout of the report, then the column must be added into the query in the data set in the XDM file.

Main View for Data set

If a main view is changed for the data set, it requires a modification in the XDM file to reflect the change in the From clause of the query of the main data set.

Query Parameter

The Element name for a Query is mapped to a BI Publisher/Oracle Analytics Publisher parameter based on the format:

```
:uuu_p_{Element Name}
```

Note: Ensure the length of {Element Name} is less than 24 characters.

Any query parameters created on the elements of the main view on the query tab also need to be appropriately mapped in the Where clause of the main view query in the XDM.

To modify an existing custom report configuration:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Custom Templates** to open the log.
- 3) Select a custom report and click **Open** to open the custom report window.

Note: The custom report must be in Draft status for modification.

- 4) Modify the fields as necessary. All fields except the "Report Level" can be modified, if the custom report has not yet been published. After the report has been published, the "Report Name" field also becomes un-editable.

Adding a Dynamic Image in the Custom Print Template

To add images from within Unifier to the Custom Print template:

- 1) Create form fields in the **.rtf** file, corresponding to the following parameters:
 - ▶ `<?variable@begin:uuu_p_urlF;(../uuu_p_urlF)[1]?>`
 - ▶ `<?variable@begin:uuu_p_sessionIdF;(../uuu_p_sessionIdF)[1]?>`
 - ▶ `<?variable@begin:uuu_p_companyRegistryF;(../uuu_p_companyRegistryF)[1]?>`

Note: The `uuu_p_*` is a predefined parameter in the data model.

- 2) Right-click the dummy image and select Size and provide the following value in the Description field of the AltText information for the image:

Description:

url:{concat(\$uuu_p_urlF,'companyRegistry=',\$uuu_p_companyRegistryF,'&sessionId=',\$uuu_p_sessionIdF,'&id=',**BPIMAGE**)}

For example, you must replace the **<BPIMAGE>** data element, in the above URL value, with the image file ID "k__<image element>" from the sample XML. See **Sample XML Data for Custom Templates (Custom Prints and Reports)** (on page 227).

Adding a Dynamic Image in the Custom Report Template

To add images, from within Unifier, to the Custom Report template:

- 1) Create form fields in the **.rtf** file, corresponding to the following parameters:
 - ▶ `<?variable@begin:uuu_p_urlF;(../uuu_p_urlF)[1]?>`
 - ▶ `<?variable@begin:uuu_p_sessionIdF;(../uuu_p_sessionIdF)[1]?>`
 - ▶ `<?variable@begin:uuu_p_companyRegistryF;(../uuu_p_companyRegistryF)[1]?>`
 - ▶ `<?variable@begin:uuu_p_tenantIdF;(../uuu_p_tenantIdF)[1]?>`

Note: The `uuu_p_*` is a predefined parameter in the data model.

- 2) Right-click the dummy image and select Size and provide the following value in the Description field of the AltText information for the image:

Description:

url:{concat(\$uuu_p_urlF,'companyRegistry=',\$uuu_p_companyRegistryF,'&sessionId=',\$uuu_p_sessionIdF,'&id=',**PROJECTIMAGE**)}

For example, you must replace the <PROJECTIMAGE> data element, in the above URL value, with the image element taken from your sample data XML. See **Sample XML Data for Custom Templates (Custom Prints and Reports)** (on page 227).

Additional Information

In Cloud deployment, you can use the "uuu_p_tenantIdF" data element for passing the user ID to the BI Publisher/Oracle Analytics Publisher report. This will include the required URL needed for accessing the image file, in the BI Publisher/Oracle Analytics Publisher report. For legacy BI Publisher/Oracle Analytics Publisher reports, in Cloud or On-premises deployments, you can continue to use the following data elements for passing the user ID to the BI Publisher/Oracle Analytics Publisher report:

- ▶ uuu_p_urlF
- ▶ uuu_sessionIdF
- ▶ uuu_p_companyRegistry

Adding a Dynamic Image in a BI Publisher/Oracle Analytics Publisher Report

To add a dynamic Unifier image in a BI Publisher/Oracle Analytics Publisher report, you must create a data set in the Data Model (XDM) file, as explained below.

Note: The following instructions apply to reports that run directly on the BI Publisher/Oracle Analytics Publisher server. The BI Publisher/Oracle Analytics Publisher reports that run via Unifier do not require these changes.

In the .XDM file:

```
<dataSet name="security_token" type="complex">
  <sql>
    <![CDATA[SELECT token_value sec_token from ( SELECT
token_value,expired,ROW_NUMBER() OVER (ORDER BY expired desc) rn FROM
sys_server_token WHERE token_type = 'img') where rn = 1]]>
  </sql>
</dataSet>
<group name="security_token" label="security_token"
source="security_token">
  <element name="SEC_TOKEN" value="SEC_TOKEN" label="SEC_TOKEN"
dataType="xsd:string" breakOrder="" fieldOrder="1"/>
</group>
```

Note: The purpose is to get the server token from database where "expired" is the maximum from all the rows.

In the report template that requires to have the image to be inserted, change the "Alt text" of the image to point to image retrieval URL.

To retrieve a Unifier image, use the URL: `https://unifier-server-address/bluedoor/rest/image/<image_id>/<server_token>`

The report parameter `uuu_p_urlF` can be created in Data Model (XDM) file with a default value, so at the runtime the server address-part of the URL can be changed appropriately:

```
<parameter name="uuu_p_urlF"
defaultValue="https://unifier-server-address/bluedoor/rest/image"
dataType="xsd:string" rowPlacement="8">
    <input label="uuu_p_urlF" size="100"/>
</parameter>
```

The report template uses this URL in the "Alt text" of the image, as in:

```
url:{concat($uuu_p_urlF,'/',DATA_IMAGE_ID,'/',//security_token/SEC_TOKEN[1])}
```

Where: `uuu_p_urlF` can be the template variable, for example:

```
<?variable@begin:uuu_p_urlF;(./uuu_p_urlF)[1]?>
```

The security token, retrieved from DB by the dataset is: `//security_token/SEC_TOKEN[1]`

The runtime data (image ID) is: `DATA_IMAGE_ID`

Additional Information

In a Cloud deployment, you can use the "`uuu_p_tenantIdF`" data element for passing the tenant ID to the BI Publisher/Oracle Analytics Publisher report. This will include the required URL needed for accessing the image file in the BI Publisher/Oracle Analytics Publisher report. For legacy BI Publisher/Oracle Analytics Publisher reports, in a Cloud or On-premises deployment, you can continue to use the following data elements for passing the user ID to the BI Publisher/Oracle Analytics Publisher report:

- ▶ `uuu_p_urlF`
- ▶ `uuu_sessionIdF`
- ▶ `uuu_p_companyRegistry`

Adding Rich Text Data Element in BI Publisher/Oracle Analytics Publisher Report and Custom Print

Unifier supports custom print, and custom report, for the "Rich Text" data element. You can use the "Rich Text" data element (of your BP form) in your data model. Furthermore, the HTML version of the "Rich Text" data element can be rendered as HTML, in the report, if the HTML version needs to be seen in BI Publisher/Oracle Analytics Publisher template.

To include the "Rich Text" data element:

- 1) Go to the report template file, for "Rich Text" data element.

The Rich Text fields in the BI Publisher/Oracle Analytics Publisher template file are prefixed with: ?html2fo. For example, if the DE name is RTECODE, the DE name must be wrapped as it was in the template file as: <?html2fo: RTECODE?>. This will allow the template processor to treat the element as HTML.

- 2) To view the Rich Text type DE in correct format, in the BI Publisher/Oracle Analytics Publisher reports (in the BI Publisher/Oracle Analytics Publisher server), go to the data model editor for the report and set the data type of the RTECODE data element column to XML.

In the BI Publisher/Oracle Analytics Publisher, the Rich Text type DEs can be found in the <model>_richtext data model. In addition, when defining queries and Data Links in Custom Templates:

- ▶ The Rich Text type DE from the BP richtext views (model_richtext) must be restricted.
- ▶ The plain Rich Text type DE content, from the BP model, must be allowed.

When you add a Rich Text type DE to the custom print template:

The following HTML elements will not work in the *PDF* output format:

- ▶ Table
The borders will not display.
- ▶ Alignment
The left, right, and indent will not work.
- ▶ Image
Will not display.
- ▶ Code block
Will not work.

The following HTML elements will not work in the *RTF* output format:

- ▶ Table
The borders will not display.
- ▶ Alignment
The left, right, and indent will not work.
- ▶ Code block
Will not work.
- ▶ Block Quote
Will not work.

Note: The Rich Text Data Element does not support indentation, bullets, or numbering, when configured in Custom Print or Custom Report.

Connect to the Database

A direct connection to the Unifier database using SQL Developer is not possible. The creation of SQL queries must be done in Data Views, or by pulling rows down from Unifier into a local database.

If you must pull the data into a local database for the purpose of SQL development, Oracle offers Oracle Database 11g Express Edition (XE) free of charge. You can install this lightweight DB on your computer and use it for development purposes.

Download Oracle Database Express Edition (XE). Refer to the XE documentation for instructions on how to install the software and create a local database.

(Optional) Pulling Down the Data

After you know the table names, you can export 200 lines so it can be inserted into your local Database (DB).

To pull down the data:

- 1) Sign in as a Company Administrator.
- 2) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 3) In the left Navigator, click **Data Structure Setup > Data Views**.
- 4) Click **New** to create a Data View.
- 5) Enter a name (for example, Export DV) and a Label (for example, Export Data View).
- 6) In the SQL Definition field, enter the following for a particular table: `SELECT * FROM <tablename>`
- 7) Click **OK**.
- 8) Click the **Status** drop-down list and set the newly created Data View to **Published**.
- 9) Highlight the Data View you just created and click **Data** on the toolbar.
- 10) In the window, click **Export as SQL** on the toolbar to save the **.sql** file locally. This SQL file includes the CREATE and INSERT commands required to get your data into your local XE database.

At this point, you can create the table and insert the exported rows into your local XE database using tools like SQL Developer.

Repeat the steps above for any tables that you like to access offline.

Note: You can reuse the same Data View multiple times; however, you must perform a find and replace in the downloaded SQL to ensure that the table names match the names that are in Unifier.

Because you have a subset of the database locally, you can use SQL Developer to write complex queries, offline, before bringing them into Unifier.

Configuring Project Numbering and Status

As the administrator, you can configure the project numbering and the status of each project/shell type. As part of the numbering scheme, you can enable and disable automatic numbering and you can update the format and starting number. The system implements the new settings for records created *after* the change is implemented and ensures that unique labeling is maintained. If you change the value of Format or Start, the system cannot guarantee that the selected sequence is available due to possible conflicts with existing data and might alter the selected information to prevent a conflict. Changing this information might also create gaps in the numbering sequence.

Example: If you specify a Format of ABC and a Start of 0001, and records ABC0001 through ABC0015 have been created, and you then change the Format to DEF and the Start to 0001, the system starts generating new records with DEF0001. If you change the Format to back to the original ABC and a Start of 0001, the system will begin the sequencing of new records using ABC0016.

To configure project numbering and status:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Shell Manager**.
- 3) Double-click the applicable shell type, such as Projects.
- 4) On the **General** tab, complete the following fields:
 - ▶ **Enable Automatic Numbering:** To allow automatic numbering of projects based on the specified **Format** and **Start** values, select this option. You can deselect this check box to disable automatic numbering; it is selected by default.
 - **Format:** If you enable automatic numbering, specify the format of the numbering schema. By default, **Format** is blank.
 - **Start:** If you enable automatic numbering, specify the starting number. Start determines the starting number of the numeric schema. By default, **Start** is 0001.
 - ▶ **Cost Codes:** This read-only field displays the type of cost code specified in uDesigner for the shell type.
 - **WBS:** Standard Cost Manager
 - **Generic:** Generic Cost Manager
 - ▶ **Status:** Select the applicable status, **Active** or **Inactive**. Users cannot access shell types that have an **Inactive** status. The default is **Inactive**.

Note: If a project/shell is open and visible when its corresponding shell type is changed to Inactive, you cannot create a new shell of the applicable type but existing shells are not affected.

- 5) When you are done, click **Save**.

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View, Print, or Export the Configuration - Shell Manager Audit Log

To use the Audit Log:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > Shell Manager**.
- 3) Select the applicable shell type.
- 4) In the toolbar, click **Open Audit Log**.

The Audit Log displays a variety of information, including the date on which a change was made, what the previous value was, and who made the change.

- 5) To print or export the information, click **Print** and select one of the following:
 - ▶ **Print:** The system generates a PDF version of the log, which you can save or print.
 - ▶ **Export To CSV:** The system generates and downloads a comma-separated value (CSV) version of the log.
 - ▶ **Export To Excel:** The system generates and downloads a Microsoft Excel version of the log.

Configuring the User Mode Navigator

You (Company administrator) can configure the **User Mode Navigator (Company Workspace tab > Admin mode > Configuration > User Mode Navigator)** to better suit the company business needs. The **User Mode Navigator** lets you modify the appearance and organization of the modules and business processes that are available in the left Navigator for all company users.

This functionality of the **User Mode Navigator** is limited to the collaborative portions of the **User mode Navigator** in the Home Workspace, Company Workspace, Shells, and Projects.

Note: This configuration will affect **User** mode navigation for all users in your company. Oracle strongly recommends that you fully test your configurations in the **Development/Test** environment.

Within the **User Mode Navigator**, you can create grouping nodes, rename existing ones, reorder items within the nodes, and even remove unused modules from the Navigator, in order to provide increased flexibility to organize and view modules and business processes. The configured view will appear for all users.

As always, access to any module or business process is strictly controlled by permission settings. The **User Mode Navigator** feature does not override permission settings in any way; it simply lets you customize the look and organization of navigator modules that a user has permissions to access. Any changes you make to the **User** mode navigation tree will be reflected in the **Access Control** view.

Example

- ▶ If a user has permission to access at least one leaf node under a grouping node, then the grouping node will appear in the user's view of the navigator.
- ▶ If the user does not have permission to any leaf nodes under a grouping node, then the grouping node will not appear in the user's Navigator.

The following terminology is used with **User Mode Navigator**:

- ▶ **Grouping node:** This is a container "parent" node. Grouping nodes are easy to identify because they have a (+) next to them in the navigation tree. Clicking a grouping node in the left Navigator expands the node to display any child nodes below it; the child nodes can be leaf nodes, or another grouping node (also known as a functional node), for example, Project Logs, Cost Manager, and so forth.
- ▶ **Actionable grouping node:** This type of grouping node not only expands to display child nodes underneath it, but also refreshes the right pane and displays an associated log or page, for example, Projects node, which expands to display the project nodes in the Navigator and also opens the Project home page.

- ▶ **Leaf node:** This is a child node that cannot become a grouping node. In the last node of the navigation "tree," no further branching can take place. Clicking a child node refreshes the right pane to display the associated module or log, for example, Cost Sheet within the Cost Manager, or the individual business process logs under Project Logs.

The configurable navigator lets you:

- ▶ Configure navigation trees for:
 - ▶ Company Workspace Navigator
 - ▶ Home Navigator
 - ▶ Project/Shell Navigator

Note: The settings do not take effect in your users' navigators until you deploy them.

The **User Mode Navigator** enables you to:

- ▶ Create new grouping nodes (**New**) for:
 - ▶ Company Workspace
 - ▶ Home Workspace
 - ▶ Project/Shell
- ▶ Copy an existing navigator setup (**Copy**)
- ▶ Deploy a navigator (**Deploy**)

The system performs a check to see whether there are any other navigators of the same type currently active. If so, the system notifies you that the currently deployed navigator will be set to an "Inactive" status.

- ▶ Undeploy a navigator (**Undeploy**)

When selecting this option for an **Active** navigator, the navigator (for the type selected) displays system defaults during the runtime.

- ▶ Include a navigator for your configuration package
 - ▶ To be able to define multiple navigators per object and create configuration packages to suit various out of the box (OOTB) solutions. Each OOTB solution has its own configuration of business processes, reports, and so forth along with the User mode.
 - ▶ You can include multiple navigators in the component list and create your configuration package.
 - ▶ The status of a navigator does not impact export.
 - ▶ The first time that you package a User Mode Navigator setup, you must include all the designs (on the left side of the Navigator) in the package. If you do not include the designs, the configuration package creation will result in an error.
 - ▶ For Active navigator setups, the Last Deployed Date must be greater than the Last Saved Date.
 - ▶ If the navigator status is set to **Active**, then the system deploys that navigator to the destination environment. If the status is **Inactive**, then the system adds the navigator to the User Mode Navigator list.
 - ▶ If a navigator with the same name exists in both the package and the destination server, then the system updates the content at the destination server.

- ▶ If the status of the navigator in the destination server is **Inactive** and the status of the navigator in the package is **Active**, then the system deploys the navigator and changes the status to **Active** in the destination server.
- ▶ If the status of the navigator in the destination server is **Active** and the status of the navigator in the package is **Inactive**, upon import of the configuration package, the system updates the content of the navigator, but the navigator will not be deployed.
- ▶ Custom BI Publisher/Oracle Analytics Publisher reports can be a part of the User Mode Navigation setup.
- ▶ Internal BI Publisher/Oracle Analytics Publisher reports, included in the setup, must be either a part of the package or exist in the destination server. If the Internal BI Publisher/Oracle Analytics Publisher report is in **Draft** status, the import will succeed if the Internal BI Publisher/Oracle Analytics Publisher report has been published, in the destination server, at least once.
- ▶ External BI Publisher/Oracle Analytics Publisher reports, included in the setup, must be either a part of the package or exist in the destination server. The External BI Publisher/Oracle Analytics Publisher report name, location, and report level that exists in the destination server must match the attributes existing in the package.
- ▶ Rename new and existing grouping nodes
- ▶ Change the icons associated with the nodes
- ▶ Move nodes up and down the navigation tree, or from one grouping node to another
- ▶ Remove unused modules from the navigator without deleting the modules themselves
- ▶ Move business process logs or other modules between new or existing grouping nodes
- ▶ Store the following versions of the navigator:
 - ▶ Last saved version
 - ▶ Last deployed version
 - ▶ System default version,
- ▶ Restore the navigator to any of the above versions at any time

Note: Configuring navigator is a separate setup. As a result, the new business processes do not appear in the log selected in the configuration. Instead, the new business processes appear in the right pane of the user's configurable navigator window. To place the new business processes inside the corresponding node in the left Navigator and make it available to the users, you must transfer the new business processes manually.

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Create a User Mode Navigator Configuration

You can create one configuration for user mode Project, Shell, or Company Workspace.

To create a project or company workspace navigator configuration:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The **User Mode Navigator** log lists all previously created configurations.
- 3) Click **New** and choose one of the following:
 - ▶ **Home:** Configures the navigation node for the **Master Log - Business Processes** node.

Note: You cannot hide the Tasks, Notifications, Drafts, and Mailbox nodes in the Home workspace.

- ▶ **Company Workspace:** Configures the navigation nodes within the Company Workspace portion of the User Mode navigator
- ▶ **Project/Shell:** Configures the project/shell level navigation

The Create New Navigator window opens. The left portion of the window displays the navigation as it would appear for users. In the example below, the default navigation is displayed, because a new configuration has not been deployed. The right pane of the window displays available modules or business process logs that can be added to the navigation on the left.

- 4) Configure the new navigator configuration as described below.
- 5) To save the configuration, click **OK**.

The configuration will be displayed in the log. There can be one configuration each for Project, Shell, or Company Workspace. After saving, you must deploy the configuration for it to take effect. See ***Deploying a Navigator Configuration*** (on page 276).

You can configure the new project or company workspace navigation. After deploying, the configuration will appear in the user mode navigator for all users in your company.

Use the toolbar to configure the navigation:

- ▶ **New:** Creates a grouping node.
- ▶ **Rename:** Lets you rename the selected grouping node.
- ▶ **Expand All:** Expands all grouping nodes to reveal their functional sub-nodes.
- ▶ **Move Up / Move Down:** Moves selected nodes up or down in the navigator.
- ▶ **Cut / Paste:** Lets you cut and paste nodes from one grouping node to another.
- ▶ **Restore:** Restores the configuration to the system default, or the last deployed version.
- ▶ **Change Icon:** Lets you change the icon of the selected node.

To expand all navigator nodes:

In the navigator window, click the **Expand All** button. This expands all grouping nodes and lets you view all the nodes currently present in the navigation. You can contract a grouping node to hide the leaf nodes by clicking the (-) next to the grouping node name.

Create a Grouping Node

You can create a grouping node to use to organize modules or business process logs.

To create a grouping node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) Open a configuration from the log.
- 4) In the left box, select a valid parent node.

This can be the root node (Company Workspace, Shell, or Project), or any other grouping node in the navigator tree (for example, Cost Manager or Project Logs).

- 5) Click **New**.

The newly created node is created under the selected node. The default name is New Grouping Node, and uses the default icon of a file folder. Grouping nodes can be renamed, moved, and given a new icon.

Rename a Grouping Node

You can rename any new or existing grouping nodes in the left Navigator, with the exception of the root node (Project, Shell, or Company Workspace). You cannot rename leaf nodes.

To rename a grouping node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) Open a configuration from the log.
- 4) In the left box, double-click the grouping node, or select the node and click the **Rename** button. The field becomes editable.
- 5) Enter a new name for the field, up to 32 characters. Grouping nodes under same parent node cannot have same name.

Change the Icon of a Grouping Node

You can change the icon of any grouping node except the root node (Projects, Shells, Company Workspace).

To change the icon of a grouping node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**.
The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) Open a configuration from the log.
- 4) In the left box, select the grouping node and click the **Change Icon** button.
The available icons are displayed.
- 5) Click the new icon.
The icon immediately appears on the selected grouping node.

Move Nodes within the Navigator

You can move any grouping node or leaf node up or down the navigator, either within the original grouping node, or from one grouping node to another. There are three ways to move nodes within the navigator:

- ▶ Move a node up and down the navigation tree within its parent grouping node
- ▶ Move a node from one grouping node to another

See the following procedures for more details.

To move a node up or down the navigator:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) In the navigator window, select the node to move.
- 4) Click the **Move Up** or **Move Down** button to move the node up or down within the parent grouping node. If you move a grouping node, all child nodes move with it.

To move a leaf node from one grouping node to another:

- 1) In the navigator window, select the node to move.
- 2) Click the **> (right arrow)** button to move the node to the right pane. Continue with each node that you want to move.

Only leaf nodes will be moved. If you select a grouping node, only the leaf nodes underneath it will move to the right pane. The grouping node itself will be deleted.

- 3) In the left pane, select the destination grouping node into which you want to move the leaf nodes.
- 4) In the right pane, select the leaf node to move and click the **< (left arrow)** button. The leaf node moves to the grouping node on the left. Repeat as needed with any other leaf nodes to move.

Note: If you leave a leaf node in the right pane and deploy the configuration, that module or business process will not appear on the User Mode Navigator for users.

To move a node from one grouping node to another by cut and paste:

- 1) In the navigator window, select the node to move. You can select a grouping node or leaf node.
- 2) Click the **Cut** button. (The selected node will not yet be removed).
- 3) In the left pane, select the destination grouping node in which to move the selection.
- 4) Click the **Paste** button. The node will be moved the new location. If you have selected a grouping node, the grouping node and all leaf nodes will be moved.

Remove Unused Nodes (Modules) from the Navigator

If there are nodes (modules) that your company never uses, and that cannot be hidden by use of permission settings (for example, the Mailbox node), you can remove them from the User Mode Navigator. The nodes themselves will not be deleted, and can be restored to the Navigator at any time.

To remove a module from the User Mode Navigator:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) In the navigator window, select the node to remove.
- 4) Click the **> (right arrow)** button to move the node to the right pane. Continue with each node that you want to remove.

Only leaf nodes will be moved. If you select a grouping node, only the leaf nodes underneath it will move to the right pane. The grouping node itself will be deleted.

- 5) Save and deploy the configuration. The nodes that remain in the right pane will not appear in the User Mode Navigator.

Delete a Grouping Node

Any grouping node can be deleted. Leaf nodes cannot be deleted; however, you can remove them from the User Mode Navigator that appears to all users. See **Remove Unused Nodes (Modules) from the Navigator** (on page 275).

To delete a grouping node:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) In the left pane of the navigator window, select a grouping node.
- 4) Click the **> (right arrow)** button. The grouping node is deleted. If the grouping node contains leaf nodes, the leaf nodes are moved to the right pane, and the grouping node is deleted.

Deploying a Navigator Configuration

After you have created a navigator configuration, it must be deployed for changes to take effect in the User mode. After you deploy the navigation, the view will be displayed to all users.

To deploy a new navigator:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) In the User Mode Navigator log, select the configuration to deploy.
- 4) Click the **Deploy** button. When the navigation configuration is deployed, a confirmation window opens. Click **OK**.

The navigator change takes effect immediately for all users.

Delete a Navigator Configuration

If you delete a configuration from the User Mode Navigator log, the system defaults for the applicable portion of the User Mode Navigator (Project, Shell, or Company Workspace) will be restored back to the system defaults automatically.

To delete a configuration and restore the navigator to system defaults:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Configuration > User Mode Navigator**. The User Mode Navigator log opens. The log lists any previously created configurations.
- 3) In the User Mode Navigator log, select the configuration to delete.
- 4) Click the **Delete** button. At the confirmation window, click **Yes**. The User Mode Navigator will be restored to system defaults immediately.

Restore the Navigator to Previous or Default Configuration

You can restore the navigator configuration to a previously saved version, the last deployed version, or to original system default at any time. You must still deploy the restored navigator in order for it to take effect.

To restore the navigator to a previous or default version:

In the configurable navigator window, click the **Restore** button and choose one of the following options:

- ▶ **Last Saved:** Restores the navigation tree to the last saved version, regardless of deployment

- ▶ Last Deployment: Restores the navigator to the version that was last deployed (not applicable for new configurations that have not yet been deployed)
- ▶ System Default: Restores the navigator to the original system defaults

Unifier Mobile Application

The Unifier Mobile Application is built specifically for installation and use on mobile devices that use iOS or Android operating systems. To get the mobile app, you have the following options:

- ▶ Download it from the App Store or Play Store, or
- ▶ Launch Unifier, click your user name in the upper-right corner, click **Get Unifier Mobile App**, and follow the prompts.

After download, you can scan the QR code to set up the Server URL and user name on your Unifier Mobile App.

Notes:

- If you are in a region without access to the Google Play Store, Apple App Store, or your organization is using a Content Security Service or Mobile Device Management solution and requires that users do not download from the Apple Store or Play Store, submit a Service Request in My Oracle Support to request versions of the Unifier Mobile Application for those scenarios.
 - If your iOS device does not have the Passcode feature enabled, you can download and install the mobile application; however, the system displays a message that indicates you must go to Settings and enable the Passcode feature before you can use the application.
 - If your iOS device is jailbroken (lacks the manufacturer's restriction that prevents installation of unauthorized software), you can download and install the mobile application; however, the system displays a message that you cannot use it with a jailbroken device.
 - You must have permission to access the Unifier Mobile App. If you receive a message that indicates you do not have permission, contact your Company Administrator.
-

Important sign-in information for on-premises users on non-SSO servers

For on-premises customers on non-SSO server (prior to 19.12.2):

Unifier Mobile App uses the Basic Authentication for login while connecting to the Unifier web application deployed on a non-SSO server.

For on-premises customers on non-SSO server (on or after 19.12.2):

Unifier Mobile App uses Form-based Authentication while connecting to the Unifier web application deployed on a non-SSO server. As a result, you must use the latest version of the mobile app to access data on your device.

Note: The user preferences, in the Unifier web application, will be effective when you sign in to the mobile app.

Unifier and Other Oracle Applications

Unifier objects can be integrated with other Oracle applications by way of:

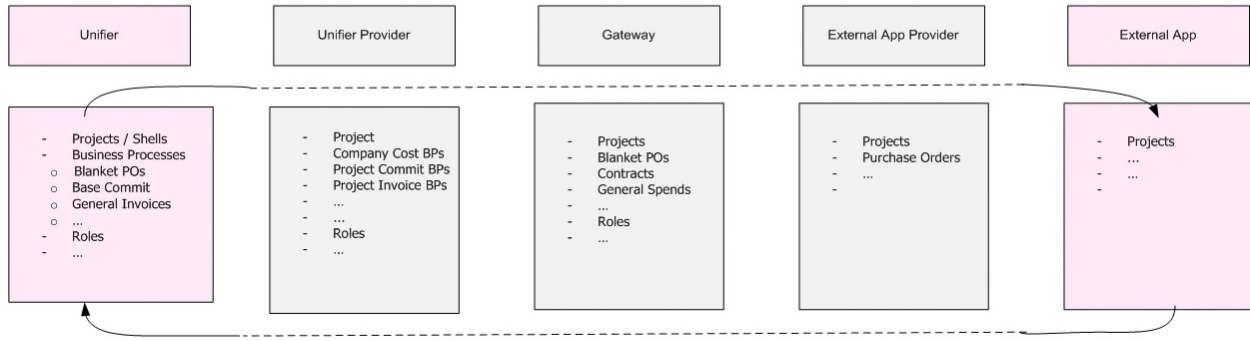
- ▶ **Web Services:** Client and server applications that communicate over the World Wide Web's (WWW) Hypertext Transfer Protocol (HTTP) and provide a standard means for operation between software applications running on a variety of platforms and frameworks, using XML. For more information about Web Services integration, refer to the *Unifier Integration Interface Guide*.
- ▶ **Oracle Database Gateways:** Addressing the needs of disparate data access and making it possible to integrate with any number of non-Oracle systems from an Oracle application. Oracle Database Gateways enable integration with data stores such as IBM DB2, Microsoft SQL Server, and Microsoft Excel, and transaction managers like IBM CICS.

Unifier is integrated with the following enterprise applications via Primavera Gateway:

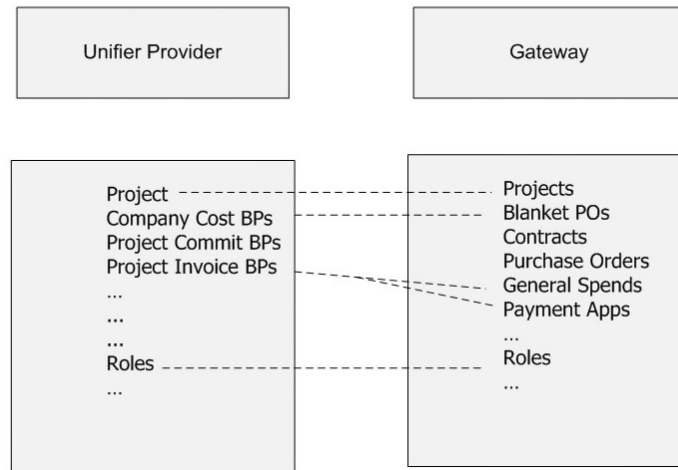
- ▶ Oracle Primavera Analytics
- ▶ Oracle Primavera P6
- ▶ Oracle E-Business Suite (also known as Applications/Apps or EB-Suite/EBS)

As shown below, after all the objects are created and linked to each other, data flows to Unifier (business flows/synchronizations) in this formation: Oracle application/external application > Oracle application/external Provider > Gateway > Unifier Provider > Unifier

Unifier integration with other applications via Gateway



Provider must have a hard-coded (Java-code) link to the corresponding object in Gateway



The following sections describe the process in detail.

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Unifier and Primavera Analytics

Analytics provides an in-depth and comprehensive method for analyzing and evaluating:

- ▶ Shells
- ▶ Project performance
- ▶ Project history
- ▶ Business Processes (including Vendor analysis)
- ▶ Cost Sheet
- ▶ Cash Flow
- ▶ P6 Summary Sheets
- ▶ Generic Cost Sheet
- ▶ Space Utilization (from Space Manager)

Configure this section for users to ensure they can see data within Analytics.

If the **Analytics** module is enabled, the Company administrator can access the **Analytics** module by signing into Unifier and navigating to the **System Modules** node (**Data Structure > Admin mode > System Modules**).

Note: The System Administrator has to load the Analytics module.

Users can use the Analytics for data input and must have permission in order to be able to access the **Analytics** node. Permissions set in Unifier (**Access Control**) enable users to view the data in Oracle Business Intelligence (OBI) server. Users ability to access OBI server is also set in Unifier.

Analytics Node

The Analytics node is located under the Integrations grouping node. In the Analytics node, you can select publication of data to staging tables, map data, and set schedule for periodic publication of data into Analytics.

Note: A separate ETL process pushes the staging data into STAR which then becomes available in Analytics.

When you click the Analytics node, the log displays predefined set of modules such as:

- ▶ Business Processes
- ▶ Cash Flow
- ▶ Cost Sheet
- ▶ Generic Cost Sheet
- ▶ P6 Summary Sheets
- ▶ Shells
- ▶ Space Manager
- ▶ Vendors

Analytics Log Properties

The Analytics log has two columns which display the Name and the Last Modified Date of the records.

The Analytics log toolbar has the following options:

- ▶ Open
- ▶ Schedule
- ▶ Run Now
- ▶ Run History

The Open, Run Now, and Run History options can be accessed from the File menu. The Schedule option can be accessed from the Edit menu.

Analytics Log (Business Process) Setup

You can set up Dashboards and Analyses, for Unifier Business Processes, in Oracle Business Intelligence Enterprise (OBIE) analyses and select the Business Process data that you want to use for analyses.

When you open a Business Process in the **Analytics** node, you will see the **Analytics - Business Process Setup** window with the following tabs:

- ▶ Business Processes tab
- ▶ Custom Fields tab
- ▶ Data Mapping tab

Business Processes tab

Select Business Processes for Analytics

The **Business Processes** tab allows you to select the Business Process that you want to use in Analytics.

Use the **Add** or **Remove** buttons to add or remove the Business Processes for Analytics. To add a new Business Process for use in Analytics:

1. Click **Add** to open the Select Business Processes for Analytics window that lists all the company-level and project/shell-level Business Processes, in alphabetical order.

Note: This list includes Active and Inactive Business Processes.

2. Select one Business Process, or select as many as you need, and click **OK** to add the Business Process to the log.

Note: After you added the Business Process, that Business Process will no longer be available in the Select Business Processes for Analytics list.

You can remove a Business Process that is published for Analytics. To remove a Business Process for use in Analytics, select the Business Process from the Select Business Processes for Analytics list and click **Remove**. You can delete multiple Business Processes from the list. You can add a removed Business Process for Analytics reporting. Click **Add** if you want to add a removed Business Process to the list.

If a Company Administrator inactivates a Business Process that has been used for Analytics, then this Business Process continues to remain in the Business Processes tab. If you remove a Business Process from the Business Processes tab, data that exists in Analytics, for the removed Business process, remains as is; however, the new data will not be published.

To save space, you can decide not to track the history of facts and dimensions, on a Business Process.

In the **Analytics - Business Processes Setup** window (**Business Processes** tab) you can select a business process and mark to not track the history of the business process data elements (**Track History of Data Elements?** column). By default, all BPs in this tab are selected to have their history tracked. After your initial selection in the **Track History of Data Elements?** column for a BP, if you open the **Analytics - Business Processes Setup** window and go to the **Business Processes** tab and deselect the track history option for a BP, then Unifier will notify you that the BP will no longer maintain the historical data in Analytics.

For a BP with track history option selected, all data mapping changes for the elements of the BP will be recorded as errors in the historical data in Analytics.

Note: The **Track History of Data Elements?** column values will be included in the Configuration Package during export or import.

Custom Fields tab

The Custom Fields tab is available after you add your Business Processes in the Business Processes tab. The Custom Fields tab has two sections:

- ▶ Main Form Elements
- ▶ Line Item Elements

You can specify values in each field to set the number of user-defined fields for Data Mapping. The default values displayed are based on the existing user-defined fields limit that is currently set in Unifier.

The total number of Main Form custom fields cannot exceed 900. Similarly, the total number of Line Item custom fields cannot exceed 900.

When entering values in the fields:

- ▶ Use numeric values.
- ▶ Do not use decimal points.
- ▶ Use numbers greater than the default values.

Note: The number of fields specified are bundled as a part of configuration package, if the component has been tagged.

Data Mapping tab

The Data Mapping tab allows you to map the predefined Analytic Business Process fields to a corresponding Data Element (DE) in the Business Process.

Notes:

- The Data Mapping tab is available after you have added a Business Process, in the Business Processes tab, and clicked Apply or OK.
 - The Data Mapping is done per DE and not per Business Process. All Business Processes added in the Business Processes list tab are included and you do not need to select a specific Business Process for mapping.
 - The fields from both Upper and Detail forms can be mapped in the Data Mapping tab, and you can change mapping of the fields.
 - The workflow data (Steps and tasks), related to any Workflow BP, is also sent to Analytics.
 - The DE of type Rich Text is not available to be mapped to the UDFs from Analytics.
-

The Data Mapping tab displays the following information:

- ▶ Name
 - ▶ Source
 - ▶ Data Source
 - ▶ User Defined Attributes
 - ▶ Name
 - ▶ Data Type
 - ▶ Source
 - ▶ Data Source
 - ▶ Label
-

Note: In addition to the system defined fields for Analytics, you can define additional custom fields for Analytics in the User Defined Attribute section.

Name

The Name column is pre-populated and displays the following names:

- ▶ Specification Section
 - ▶ Vendor ID
 - ▶ Contract Type
 - ▶ Reason
 - ▶ Unit of Measure
-

- ▶ Spend Category
- ▶ Quantity
- ▶ Unit Cost

The names above represent the fields used in OBI. These are read-only fields and you cannot modify them.

All the "Main Form" fields are listed first and are sorted alphabetically within the source.

All the "Line Item" fields are listed after the Main form fields and are sorted alphabetically within the source.

Source

The Source column displays the location of the Data Element (DE) seen in the Data Source. For Business Processes, the DEs can either be from the "Main Form" or the "Line Item."

Data Source

The Data Source column contains a consolidated list of all DEs for all the selected Business Processes in the Business Processes tab. In addition:

- ▶ The list of values displayed upon clicking the Data Source drop-down will be those that have a matching data definition as the Name field. When you click, the Data Source drop-down list contains a list of values that have a matching Data Definition (DD) as the Name field.
- ▶ The drop-down list, which requires the Upper form mapping, contains a consolidated list of all Upper form DEs. For example, if there are ten Upper forms from all the Business Processes, and each Upper form has 10 DEs, then the list of DEs displayed in the drop-down list will be a consolidated and unique list of DEs from all the Business Processes.
- ▶ The drop-down list, which requires the Detail form mapping, contains a consolidated list of all Detail form DEs. For example, if there are twenty Detail forms, and each Detail form has 10 DEs, then the list of DEs displayed in the drop-down list will be a consolidated and unique list of DEs from the Detail forms of all the Business Processes.
- ▶ The fields displayed in the Data Source drop-down list is a concatenation of DE Label and DE Name, and the DE Name is displayed within parentheses. For example, `Department (contract_department)`

User Defined Attributes

The User Defined Attributes section of the Data Mapping tab lists the following columns:

- ▶ Name
- ▶ Data Type
- ▶ Source
- ▶ Data Source
- ▶ Label

The Label will be based on the selected DE label, but you can change it.

Use the Add, Modify, and Remove to add, modify, or remove user defined attributes.

To modify a user-defined attribute, select the attribute, click **Modify**, and modify the fields.

To remove a user-defined attribute, select the attribute, click **Remove**, and modify the fields.

To add a user-defined attribute, read the following information:

When you click **Add**, the **Add User Defined Attribute** window opens. This window allows you to select the following mandatory fields:

- ▶ **Data Type**
- ▶ **Source**
- ▶ **Name**
- ▶ **Data Source**
- ▶ **Label**

Notes:

- A value for the mandatory Label field will be selected by the system.
 - The Label field is populated based on the Data Element that you have selected from the Data Source drop-down list.
 - The Label field is editable and required. You will receive an error message if you leave the Label field blank.
 - If you notice that the value in the Label field has changed, it means that other fields have been updated at one point.
 - Analytics displays the value, if the label is absent.
 - Analytics displays the label, which has the Value/Label pair, in the case of Data Elements (DEs).
-

The **Data Type** that you select impacts the Name and the Data Source of the user-defined attribute. The **Data Type** field allows you to select the following attributes, only:

- ▶ String (default)
- ▶ Date
- ▶ Numeric

For example, if you select **String** as your Data Type, you can:

- ▶ Select from a predefined set of sources from Source drop-down list (Main Form or Line Item).
- ▶ Add up to 30 names (User Defined String Fields 1 - 30) as the Name.
- ▶ Select from a predefined set of data sources from Data Source drop-down list.
- ▶ The content of the Label field will be selected by the system and according to your other selections.

Analytics Dimension and Fact

The Data Type that you select corresponds to the Analytics fields as follows:

- ▶ If the Data Type that you select is String/Date, then your selection corresponds to a Dimension object in Analytics.
- ▶ If the Data Type that you select is Numeric, then your selection corresponds to a Fact object in Analytics and is only available in the Primavera - Project User Defined.

Additional information

- ▶ If the same DE exists in both Upper form and Detail form, then the DE is displayed for the Upper form fields, as well as the Line Item fields.

- ▶ If you map a DE for one field, you can map the same DE to another field. You can choose the DEs, per your Company business needs, when setting up the mapping.
- ▶ If you change the mapping of the fields, for the new records, then the next time the data is published to OBI, the values will be as per the updated fields. If you need to refresh, for all the records, then you need to click the check box option in the Schedule tab.
- ▶ If you delete a DE mapped to an Analytic field, the Data Source field displays only the DE name.
- ▶ If there are any un-mapped fields in the Data Mapping tab, the un-mapped fields appear in the DE list, based on the updated design.
- ▶ If you delete a Business Process, and click Apply, the Data Source field displays only the DE name.
- ▶ The allowed user-defined attributes is driven by the number that is set in the Custom Fields tab.
- ▶ Pickers are available for String field mappings for both canned and user defined attributes and are as follows:
 - ▶ BP Data Picker
 - ▶ Shell Data Picker
 - ▶ Space Data Picker
 - ▶ User Data Picker
 - ▶ BP Picker
 - ▶ User Picker
 - ▶ Shell Picker
 - ▶ Space Picker
 - ▶ BP Creator
 - ▶ P6 Activity Picker

Summary Payment Application (SPA) SOV type BPs

You can perform data reporting in Analytics for Base Commit, Change Commit, and Payment Application Business Processes of SPA SOV type. The system sends the following Cost allocation Line Item details to Analytics:

- ▶ Cost Code
- ▶ Cost Name
- ▶ Short Description
- ▶ Quantity
- ▶ Unit Price
- ▶ Amount

If you need to transfer data from any field (at the Summary level) to Analytics, then you must map the field to a User Defined Field in Line Items of the Business Process. The system sends the mapped field to Analytics as a part of Cost allocation Line Item.

Note: Users can map any field that exists in the Detail form.

The values of the fields in the existing Cost allocation Line Items are retained for the fields that are common to both the Summary and Cost allocation Line Items. The following explains the details:

▶ **Cost Code**

The value of the field in the Cost allocation Line Item is retained. The CBS Picker field does not exist in the Detail Form design.

▶ **Cost Name**

The value of the field in the Cost allocation Line Item is retained. The bi_item field does not exist in the Detail Form design.

▶ **Short Description**

The value of the field in the Cost allocation Line Item is retained.

▶ **Quantity**

The value of the field in the Cost allocation Line Item is retained.

▶ **Unit Price**

The value of the field in the Cost allocation Line Item is retained. The Unit price is autopopulated from the value of the field in the Detail Form and is a read-only field in the Cost allocation Line Item. The value of the field in the Cost allocation Line Item will match the value of the field in the Detail Form.

▶ **Amount**

The value of the field in the Cost allocation Line Item is retained.

Analytics Log (Cash Flow) Setup

You can set up Dashboards and Analyses, for Unifier Cash Flow data, in Oracle Business Intelligence Enterprise (OBIE) analyses and:

- ▶ Select the Cash Flow names that you want to use for analyses.
- ▶ Set up the data for the fields related to Cash Flow in the Cash Flow record.

When you open a Cash Flow record in the Analytics node, you will see the Cash Flow Setup window that contains the Cash Flow names defined in Shells. In this window, you can add a Cash Flow record and click Apply to see the Data Mapping tab.

In addition to the system-generated Cash Flow Curves, you can add additional user-defined Cash Flow Curves (total of 10). The User Defined Curves section, in Data Mapping tab of the Cash Flow Setup, displays the additional 5 Cash Flow Curves (User Defined Curves from 6 to 10).

Cash Flow tab

Use the Cash Flow tab to select the Cash Flow names that you want to use in Analytics. Once selected, you can use Add to add the name or Remove to remove a Cash Flow.

To add a new Cash Flow:

- 1) In the Analytics - Cash Flow Setup window, Cash Flow tab, click Add to open the Cash Flow window, Select Cash Flow for Analytics.

Note: This list includes the available Cash Flow items, from all CBS Shells with Detail Levels of CBS, Summary CBS, and Commitment in alphabetical order.

- 2) Select one Cash Flow, or select as many as you need, and click OK to add the Cash Flow to the log.

Note: After you add a Cash Flow, that Cash Flow will no longer be available in the Select Cash Flow for Analytics list.

You can remove a Cash Flow item that is published for Analytics. To remove a Cash Flow item for use in Analytics, select the Cash Flow item from the Select Cash Flow item for Analytics list and click **Remove**. You can delete multiple Cash Flow items from the list. You can add a removed Cash Flow item for Analytics reporting. Click **Add** if you want to add a removed Cash Flow item to the list.

Data Mapping tab (Cash Flow)

The Data Mapping tab allows you to map the predefined Analytic Cash Flow fields to a corresponding Unifier Cash Flow Curve type.

Note: The Data Mapping tab is available after you have added a Cash Flow item, in the Cash Flow tab, and clicked Apply or OK.

The Data Mapping tab displays the following information:

- ▶ **Name:** Predefined and represents the fields used in OBI.
 - ▶ The names are grouped logically and sorted based on Initial Baseline, Current Baseline, Actuals, Forecast, and User Defined Curves (1 through 10).
 - ▶ The drop-down list for the Initial Baseline and Current Baseline includes the items that are based on the Baseline Cash Flow curve type, defined under the Cash Flow data sources (Cashflow Datasources window) in the Standards & Libraries.
 - ▶ The drop-down list for the Actuals includes the items that are based on the Spends curve type.
 - ▶ The drop-down list for the Forecast includes the items that are based on the Forecast curve type.
 - ▶ The drop-down list for the User Defined Curves (1 through 10) includes all the Cash Flow data sources. The items listed are based on the Cash Flow curve type and sorted in alphabetical order.
- ▶ **Data Source:** The Cash Flow data sources defined under the Cash Flow > Data Sources node of the Standards & Libraries.
 - ▶ The fields displayed in the Data Source drop-down list is a concatenation of the Cash Flow data source name and Cash Flow curve type.

The Analytic field name can be the same as the Data Source name. For example, you can map a User Defined Curve to data source named, "Initial Baseline."

The following is a list of fields that need mapping for Cash Flow:

- ▶ Initial Baseline
- ▶ Current Baseline
- ▶ Actuals (Spends)
- ▶ Forecast
- ▶ User Defined Curves (labeled 1 through 10)

Note: Cash Flow Derive curve is not supported.

Analytics Log (Cost Sheet) Setup

You can set up Dashboards and Analyses, for Unifier Cost Sheet data, in Oracle Business Intelligence Enterprise (OBIE) analyses and select the Cost Sheet column data that you want to use for analyses.

This section explains the following topics:

- ▶ **Data Mapping - Columns**
- ▶ **Data Mapping - Cost Attributes**

When you open a Cost Sheet record in the Analytics node, the **Analytics - Cost Sheet Setup** window opens with the following tabs:

- ▶ **Data Mapping - Columns**
- ▶ **Data Mapping - Cost Attributes**

The following explains each tab and their respective fields.

Data Mapping - Columns

The **Data Mapping - Columns** tab is divided in two sections:

- ▶ System-defined columns: Listed on top of the window.
- ▶ User-defined Columns: Listed under **User Define Columns** section of the window.

The system-defined columns of the **Data Mapping - Columns** tab allows you to map the Cost Sheet Analytic fields to a corresponding Cost Sheet Data Source defined in Unifier.

In addition to the system-defined Cost Sheet columns, you can add additional user-defined columns (total of 20). The **User Defined Columns** section, in **Data Mapping - Columns** tab of the Cost Sheet Setup, displays the additional 10 columns (User Defined Columns from 11 to 20).

The top section of **Data Mapping - Columns** tab (system-defined columns) has the following columns:

- ▶ **Name**
- ▶ **Data Source**

The following explains each column.

Name

Lists a series of predefined fields which correspond to the fields used in OBI.

Note: Since the fields under Name are grouped logically, the order displayed is according to the list of fields that need mapping for Cost Sheet.

This is a list of predefined fields:

- ▶ Estimate
- ▶ Original Budget
- ▶ Pending Budget Revisions
- ▶ Approved Budget Revisions
- ▶ Revised Budget
- ▶ Contracts
- ▶ Purchase Orders
- ▶ Original Commitments
- ▶ Forecast
- ▶ Pending Change Orders
- ▶ Pending PO Amendments
- ▶ Pending Commitment Changes
- ▶ Approved Change Orders
- ▶ Approved PO Amendments
- ▶ Approved Commitment Changes
- ▶ Revised Commitments
- ▶ Pending Payment Applications
- ▶ Pending Invoices
- ▶ Pending Spends
- ▶ Approved Payment Applications
- ▶ Approved Invoices
- ▶ Approved Spends
- ▶ Actuals Received
- ▶ Journal Entries
- ▶ Risks & Issues
- ▶ Forecast Adjustments
- ▶ Budget Variance
- ▶ Remaining Budget
- ▶ Budget Percent
- ▶ Commitment Percent

Data Source

Lists the corresponding data source to each field that is listed in the **Name** column. The values in the **Data Source** fields:

- ▶ Are divided into two sources (*Single Sources* and the *Logical Sources*).
- ▶ Are sorted in alphabetic order.
- ▶ Exist in the Cost Sheet for all CBS type Shells.

The lower section of **Data Mapping - Columns** tab (under the **User Defined Columns** section) has the following columns:

- ▶ **Name**
- ▶ **Data Source**
- ▶ **Label**

The following explains each column.

Name

- ▶ This is a list of predefined columns, each column titled User Defined Column and numbered from 1 to 20.

The Analytic field name can be the same as the Data Source name. For example, you can map a User Defined Curve to data source named, "Initial Baseline."

Data Source

- ▶ The P6 data sources are included under the Single Sources, and the element is included within the parenthesis of the P6 Data Source. For example, Current Baseline (Planned Cost) .
- ▶ In addition to the predefined list displayed, you can add up to 10 additional mappings for the Cost Sheet data sources.
- ▶ You can pick the same data source for multiple fields.

Label

- ▶ Labels are required for the User Defined Columns. A red-color asterisk (*star symbol) appears for the columns that have been mapped to a data source.

Note: Asterisk (*star symbol) does not appear for a column that has not been mapped to a data source.

- ▶ For existing mappings of user-defined Cost Sheet columns, the labels are populated based on the data source name.
- ▶ Labels support non-ISO characters (UTF-8 characters).
- ▶ If there are no labels, then the data source names will be sent to OBIEE.

Note: Custom String translation is not applied.

- ▶ The first time that you select a data source, the label is populated based on the data source name. You can modify the label according to your business need.
- ▶ The maximum characters allowed in the label field is 50, same as the Cost Sheet Data Source Name.

Note: The system does not perform Label Uniqueness test.

Data Mapping - Cost Attributes

The **Data Mapping - Cost Attributes** tab contains user-defined Attributes, listed under the **User Defined Attributes** section.

To add a new field, click **Add** to open the **Add User Defined Attribute** window. Enter name, source, and label in the following fields:

- ▶ **Name**
- ▶ **Data Source**
- ▶ **Label**

The **Data Type** field is read-only and set as "String" by default. The value in the **Data Type** field determines if the selected field is a Dimension object or a Fact object in Analytics. If the **Data Type** field is "String," then the field is a Dimension object in Analytics.

Note: Only the "String" type field is supported for Cost Code Attributes data mapping in Analytics.

You can add up to 20 String type Data Elements (DEs) from the *Cost Code Attributes Detail Form* as User Defined Attributes.

The **Name** field is a required field and lists User Defined String Field 1 through 20.

- ▶ If a name has been selected, for example, User Defined String Field 1, then the list does not include User Defined String Field 1 and starts with User Defined String Field 2.
- ▶ If an existing name has been deleted, the name will appear in the list.

The **Data Source** field lists Data Elements (DEs) in the *Cost Code Attributes Detail Form*.

Only DEs with the "String" type Data Definitions (DDs) are displayed in the **Data Source** field. The "String" type DDs in the list are:

- ▶ Text Box
- ▶ Multiple Text Lines
- ▶ Pull-Down Menu
- ▶ Radio Buttons
- ▶ Multi-select Input

The DDs in the **Data Source** field include the DEs, for example, Description (uuu_cost_description). If a DE that has already been added is deleted from the deployed design, only the DE name will be seen.

Unifier populates the **Label** field based on the DE that has been selected in the **Data Source** drop-down list. The **Label** field is a required and editable field, and it will accept non-ISO characters (UTF-8), to support internationalization.

The maximum allowed length is the same as the DE label, and the system does not check for label name uniqueness.

Analytics Log (Generic Cost Sheet) Setup

Analytics supports reporting and analyses of data from the various cost attributes in the Generic Cost Sheet of Shells with Generic Cost Codes.

Note: You work with a Generic Cost Sheet in the same way that you work with Cost Sheet (CBS Shells); however, the difference is that the

data in the Generic Cost Sheet comes from Generic Shells and sub-shells, but the data for Cost Sheet comes from the CBS Shells.

You can access your Generic Cost Sheet from the Analytics node (**Shell > Admin mode > Analytics > Generic Cost Sheet**) and map your Analytics fields to the corresponding Generic Cost Sheet columns.

Double-click **Generic Cost Sheet** to open the **Analytics - Generic Cost Sheet Setup** window.

The **Data Mapping** tab (in the **Analytics - Generic Cost Sheet Setup** window) enables you to map the Generic Cost sheet Analytic fields to the corresponding Generic Cost Sheet columns. The **Data Mapping** tab has the following fields:

- ▶ Name
- ▶ Data Source
- ▶ Label

The **Data Source** values are the Single Sources and Logical Sources existing in the Generic Cost Sheets of all the Generic type Shells. You can pick the same data source for multiple fields.

The **Label** field is required field for the user-defined columns. The system supports a total of **40** user-defined columns, for the Generic Cost Sheet.

Note: An asterisk (*) appears for columns where mapping has been completed. The asterisk (*) does not appear if the column is not mapped to any data source.

The system populates the **Label** column with the Name column for the data source, as set in the Generic Cost sheet column definition. You can modify the values in the Label column, based on your business needs. The Label column supports non-ISO and UTF-8 characters.

The maximum number of characters allowed for this field is 50, same as the maximum number of characters in the Generic Cost Sheet Data Source Name.

Notes:

- The system does not support Custom String translation.
 - The system does not perform label uniqueness verification.
-

Analytics Log (P6 Summary Sheets)

You can set up Dashboards and Analyses, for P6 Summary Sheets, in Oracle Business Intelligence Enterprise (OBIE) analyses and select the P6 Summary Sheets data that you want to use for analyses.

When you open P6 Summary Sheets in the Analytics node, you will see the Analytics - P6 Summary Sheets Setup window with the following tab: P6 Data Sources.

P6 Data Sources tab

The P6 Data Sources tab allows you to select the P6 Data Sources that you want to use in Analytics (P6 Data Sources for Analytics).

Use the Add or Remove buttons to add or remove the P6 Data Sources that you want to use in Analytics.

To add P6 Data Sources for Analytics:

Click **Add** to open the Select P6 Data Sources for Analytics window and select a P6 data source for Analytics. The following data sources are available to select:

Note: The P6 Data Sources that need to send data to OBIEE are set up here.

- ▶ Current Schedule
- ▶ Customer Sign-Off Baseline
- ▶ Initial Planning Baseline
- ▶ Management Sign-Off Baseline
- ▶ New P6 Data Source for Analytics Testing
- ▶ P6 Testing datasource

These are all the published P6 data sources defined under Standards & Libraries.

When finished, click **Apply** and then **OK**.

You can select more than one data source. To select more than one data source, click one source, click OK, and click to add additional data sources.

Note: After you add a data source, that data source will not be shown in the Select P6 Data Sources for Analytics window.

Additional information

- ▶ You can use the P6 Summary Sheets that are included in the following types of Unifier CBS Shells for Analytics:
 - ▶ Duration
 - ▶ Resource loaded
 - ▶ Cost loaded

Note: The P6 Summary Sheets for the above data sources will send data to Analytics.

- ▶ If fields overlap between the CBS Shells and the existing P6 Summary Sheets, then the system-defined fields in the P6 Summary Sheets will be used.

Example:

Planned Start and Planned Finish are mapped fields in Unifier CBS Shells; however, these fields will be replaced by the system-defined fields in the P6 Summary Sheets.

- ▶ Data analysis can be performed on P6-Unifier integrated data. Since there is no user interface (UI) component for the P6 Summary Sheets, when Unifier sends data to OBIEE, the details of the P6 Summary Sheets of the selected P6 data source is sent to Analytics. In Analytics, views are created based on the details of the P6 Summary Sheets and the user can see the daily-level data.

Analytics Log (Shells)

You can set up Dashboards and Analyses, for Unifier Shells, in Oracle Business Intelligence Enterprise (OBIE) analyses and select the Shell data that you want to use for analyses.

When you open a Shell in the Analytics node, you will see the Analytics - Shells Setup window with one tab:

Data Mapping.

The Data Mapping tab is divided into two sections:

- ▶ System defined and User defined attributes
- ▶ User Defined Columns

The system defined columns of the Data Mapping tab allows you to map the Shells (called "Projects" in Analytics) Analytic fields to a corresponding Shell attribute Data Element (DE) defined in Unifier.

The top section of the Data Mapping tab displays all the system defined fields in the following columns:

- ▶ Name
- ▶ Data Source

Name

Lists a series of predefined, read-only fields, which represent the fields used in OBI.

Note: When the user adds a new user-defined field on a Shell mapping page, the "Name" field displays fields up to 100 (minus the ones used already).

- ▶ Shell Phase
- ▶ Anticipated Start
- ▶ Anticipated Finish
- ▶ Start
- ▶ Finish
- ▶ Forecast Start Date
- ▶ Forecast Finish Date
- ▶ Planned Start
- ▶ Planned Finish
- ▶ Scheduled Finish
- ▶ Current Budget
- ▶ Original Budget

- ▶ Proposed Budget
- ▶ Address 1
- ▶ Address 2
- ▶ City
- ▶ State
- ▶ State Code
- ▶ Country
- ▶ Country Code
- ▶ Postal code

Data Source

- ▶ Lists all the Data Elements (DEs), in the Shell attributes, with matching Data Definitions (DDs).
- ▶ The DEs are listed in alphabetical order.
- ▶ The values listed in the drop-down list have a matching DD as in the Name field and includes a consolidated list of all the DEs across all Shell attribute forms. For example, when you select the "Project Start Date," the drop-down list will include all the date fields in all the Shell attribute forms.

The bottom section of the Analytics - Shells Setup window includes the User Defined attributes/fields presented in the following columns:

- ▶ Name
- ▶ Data Type
- ▶ Data Source
- ▶ Label

Use the Add, Modify, and Remove to add, modify, or remove user defined attributes.

To modify a user-defined attribute, select the attribute, click **Modify**, and modify the fields.

To remove a user-defined attribute, select the attribute, click **Remove**, and modify the fields.

Note: If you remove a user-defined attribute, the DE name will remain in the list for future use.

To add a user-defined attribute, read the following information:

When you click **Add**, the Add User Defined Attribute window opens. This window allows you to select the following mandatory fields:

- ▶ Data Type
- ▶ Name
- ▶ Data Source
- ▶ Label

Notes:

- The Label field is populated based on the Data Element that you have selected from the Data Source drop-down list.
- The Label field is editable and required. You will receive an error message if you leave the Label field blank.
- If you notice that the value in the Label field has changed, it means that other fields have been updated at one point.

The Data Type that you select impacts the Name and the Data Source of the user-defined attribute. The **Data Type** field allows you to select the following attributes, only:

- ▶ String (default)
- ▶ Date
- ▶ Numeric

For example, if you select **String** as your Data Type, you can:

- ▶ Add up to 20 names (User Defined String Fields 1 - 20) as the Name.
- ▶ Select from a predefined set of data sources from Data Source drop-down list.
- ▶ The content of the Label field will be selected by the system and according to your other selections.

Dimension and Fact

The Data Type that you select corresponds to the Analytics fields as follows:

- ▶ If the Data Type that you select is String/Date, then your selection corresponds to a Dimension object in Analytics.
- ▶ If the Data Type that you select is Numeric, then your selection corresponds to a Fact object in Analytics.

Additional Information

Pickers are available for String field mappings for both canned and user defined attributes are as follows:

- ▶ BP Data Picker
- ▶ User Data Picker
- ▶ Planning Data Picker
- ▶ User Picker
- ▶ Location Picker
- ▶ P6 Activity Picker
- ▶ Auto-update Status Setup Picker

Analytics Log (Space Manager)

You can set up Dashboards and Analyses, for Space Manager, in Oracle Business Intelligence Enterprise (OBIE) analyses and select the Space Manager data that you want to use for analyses.

When you open the **Space Manager** in the **Analytics** node, you will see the **Analytics - Space Manager Setup** window with one tab: **Space Types**.

The **Space Types** tab contains a list of space type names under the **Space Types for Analysis** section. You can add and remove a Space type using the **Add** and **Remove** buttons on this tab and below the **Space Types for Analysis** section. When finished, click **Apply** and **Ok** to complete the operation.

Adding Space Types

To add new Space Types click **Add** to open the **Select Space Types for Analytics** window. If available, a list of available Space Types that have been deployed in the Company appear in the window, in alphabetical order. The list contains all Active and Inactive Space Types.

Select one, or more, Space Types.

Click **OK** to add the selected Space Types to the Space Types log.

Once added:

- ▶ The selected Space Types do not appear in the Select Space Types for Analytics window.
- ▶ The Data Mapping - Space Types tab appear.

Click **Apply** to complete the adding operation.

Removing Space Types

You can remove the Space Types that have been published for Analytics. To remove the Space Types, select one or more Space Types and click **Remove**. Once removed: The selected Space Types do not appear in the Select Space Types for Analytics window.

If you want to add removed Space Types, read the preceding instructions in **Adding Space Types**.

Working with Space Types

If you (Company Administrator) inactivate a space type, and the inactivated space type was used for Analytics, then the inactivated space type remains in the Space Types tab.

If a published space type is removed from the Space Types tab, the data that exists in Analytics (for the removed space type) remains as is.

Note: Added new data will not be published.

If an unpublished space type is removed from the Space Types tab, then no information related to the space type, and Level, is sent to Analytics.

The following sections explain the following tabs that appear after you add Space Types:

- ▶ Data Mapping - Space Types tab
- ▶ Data Mapping - Level tab

Data Mapping - Space Types Tab

The **Data Mapping - Space Types** tab appears after you add **Space Types**, and it enables you to add custom fields, from various Space Types, to use in Analytics. You can use this tab to map the Analytics field to the corresponding **Space Types** field. The **Data Mapping - Space Types** tab contains a list of user-defined attributes under the **User Defined Attributes** section. The **User Defined Attributes** section is a log that lists the following fields for each user-defined attribute:

- ▶ **Name**
- ▶ **Data Type**
- ▶ **Data Source**
- ▶ **Label**

All the fields mentioned above are read-only fields. You can add, modify, and remove user-defined attributes using the **Add**, **Modify** and **Remove** buttons on this tab.

Adding new user-defined fields

To add new user-defined fields, click **Add** to open the **Add User Defined Attribute** window and enter values in the following required fields:

- ▶ **Data Type**
- ▶ **Name**
- ▶ **Data Source**
- ▶ **Label**

About Data Type

The values for Data Type field are:

- ▶ *String*
- ▶ *Date*
- ▶ *Numeric*

When you select a Data Type, you set the value of the of the field as either a **Dimension** or a **Fact**. If you select the Data Type as **String**, or **Timestamp**, then the field will be a **Dimension** object in Analytics. If you select the Data Type as **Numeric**, then the field will be a **Fact** object in Analytics.

Data Type	Analytics
<i>String</i>	Dimension
<i>Date</i>	Dimension
<i>Numeric</i>	Fact

Adding new user-defined fields (custom fields) for Data Type: String

If you select the Data Type as **String**, then up to 20 String type Data Elements can be added from the Space Detail Form, as user-defined attributes.

To add new user-defined fields (custom fields) for **String** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined String Field 1" to "User Defined String Field 20." If a name has already been selected, then the name is not listed in the Name drop-down list.

Example

If the "Department" field has been added as a "User Defined String Field 1," then the "Name" drop-down list does not display the "User Defined String Field 1."

If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

The **Data Source** drop-down list contains a list of Data Elements from the Space Detail Form.

If you select the Data Type as **String**, the Data Elements in the Data Source drop-down list are:

- ▶ Strings and Integer Pull Downs
- ▶ Integer and String Radio Buttons
- ▶ Check Boxes
- ▶ Test Data Elements

There are no Pickers listed/available. The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Project Type(prjt_type)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The maximum allowed length is similar to Data Element label. The system does not perform a label uniqueness verification.

Adding new user-defined fields (custom fields) for Data Type: Date

If you select the Data Type as **Date**, then up to 10 "Date" Data Elements can be added from the Space Detail Form, as user-defined attributes.

To add new user-defined fields (custom fields) for **Date** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined Date Field 1" to "User Defined Date Field 20." If a name has already been selected, then the name is not listed in the Name drop-down list.

Example

If the "Project Commission Date" field has been added as a "User Defined Date Field 1," then the "Name" drop-down list does not display the "User Defined Date Field 1."

If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

If you select the Data Type as **Date**, the Data Elements in the Data Source drop-down list are:

- ▶ Date
- ▶ Date only Picker

The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Project Archive Date(prjt_arc_date)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The system does not perform a label uniqueness verification.

Adding new user-defined fields (custom fields) for Data Type: Numeric

If you select the Data Type as **Numeric**, then up to 40 numeric data elements can be added from the Level Detail Form, as user-defined attributes.

To add new user-defined fields (custom fields) for **Numeric** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined Date Field 1" to "User Defined Date Field 40." If a name has already been selected, then the name is not listed in the Name drop-down list. For example, if the "Total Count" field has been added as a "User Defined Date Field 1," then the Name drop-down list does not display "User Defined Date Field 1." If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

If you select the Data Type as **Numeric**, the Data Elements in the Data Source drop-down list are the Data Elements found on the Space Detail Forms and are:

- ▶ Integer
- ▶ Currency
- ▶ Decimal Amount

There are no Integer Pull Downs, Integer Radio Buttons, and Integer Check Boxes. The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Contract Amount(con_amt)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The maximum allowed length is similar to Data Element label. The system does not perform a label uniqueness verification.

Data Mapping - Level Tab

The **Data Mapping - Level** tab appears after you add **Space Types**, and it enables you to add custom level/floor fields, from various Levels, to use in Analytics. You can use this tab to map the Analytics field to the corresponding **Levels** field.

The **Data Mapping - Level** tab contains a list of user-defined attributes under the **User Defined Attributes** section. The **User Defined Attributes** section is a log that lists the following fields for each user-defined attribute:

- ▶ **Name**
- ▶ **Data Type**
- ▶ **Data Source**
- ▶ **Label**

All the fields mentioned above are read-only fields. You can add, modify, and remove user-defined attributes using the **Add**, **Modify** and **Remove** buttons on this tab.

Adding new user-defined fields

To add new user-defined fields, click **Add** to open the **Add User Defined Attribute** window and enter values in the following required fields:

- ▶ **Data Type**
- ▶ **Name**
- ▶ **Data Source**
- ▶ **Label**

About Data Type

The values for Data Type field are:

- ▶ *String*
- ▶ *Date*
- ▶ *Numeric*

When you select a Data Type, you set the value of the of the field as either a **Dimension** or a **Fact**. If you select the Data Type as **String**, or **Timestamp**, then the field will be a **Dimension** object in Analytics. If you select the Data Type as **Numeric**, then the field will be a **Fact** object in Analytics.

Data Type	Analytics
<i>String</i>	Dimension

Data Type	Analytics
<i>Date</i>	Dimension
<i>Numeric</i>	Fact

Adding new user-defined fields (custom fields) for Data Type: String

If you select the Data Type as **String**, then up to 20 String type Data Elements can be added from the *Level Detail Form*, as user-defined attributes.

To add new user-defined fields (custom fields) for **String** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined String Field 1" to "User Defined String Field 15." If a name has already been selected, then the name is not listed in the Name drop-down list. For example, if the "Department" field has been added as a "User Defined String Field 1," then the Name drop-down list does not display "User Defined String Field 1." If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

The **Data Source** drop-down list contains a list of Data Elements from the *Level Detail Form*.

If you select the Data Type as **String**, the Data Elements in the Data Source drop-down list are:

- ▶ Strings and Integer Pull Downs
- ▶ Integer and String Radio Buttons
- ▶ Check Boxes
- ▶ Test Data Elements

There are no Pickers listed/available. The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Project Type(prjt_type)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The maximum allowed length is similar to Data Element label. The system does not perform a label uniqueness verification.

Adding new user-defined fields (custom fields) for Data Type: Date

If you select the Data Type as **Date**, then up to 10 "Date" Data Elements can be added from the *Level Detail Form*, as user-defined attributes.

To add new user-defined fields (custom fields) for **Date** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined Date Field 1" to "User Defined Date Field 10." If a name has already been selected, then the name is not listed in the Name drop-down list. For example, if the "Project Commission Date" field has been added as a "User Defined Date Field 1," then the Name drop-down list does not display "User Defined Date Field 1." If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

The **Data Source** drop-down list contains a list of Data Elements from the *Level Detail Form*.

If you select the Data Type as **Date**, the Data Elements in the Data Source drop-down list are:

- ▶ Date
- ▶ Date only Picker

The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Project Archive Date(prjt_arc_date)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The system does not perform a label uniqueness verification.

Adding new user-defined fields (custom fields) for Data Type: Numeric

If you select the Data Type as **Numeric**, then up to 30 numeric data elements can be added from the Space Detail Form, as user-defined attributes.

To add new user-defined fields (custom fields) for **Numeric** Data Type, click **Add** to open the **User Defined Attribute** window and enter values in the following required fields:

Name

The **Name** drop-down list contains values from "User Defined Date Field 1" to "User Defined Date Field 30." If a name has already been selected, then the name is not listed in the Name drop-down list. For example, if the "# of Spaces" field has been added as a "User Defined Date Field 1," then the Name drop-down list does not display "User Defined Date Field 1." If a previously added field has been deleted, then that Name is displayed in the Name drop-down list.

Data Source

If you select the Data Type as **Numeric**, the Data Elements in the Data Source drop-down list are the Data Elements found on the Level Detail Forms and are:

- ▶ Integer
- ▶ Currency
- ▶ Decimal Amount

There are no Integer Pull Downs, Integer Radio Buttons, and Integer Check Boxes. The Data Source field displays a series of interconnected Data Element names and Data Element labels in the following format: DE Label(DE name). For example, `Contract Amount(con_amt)`. If a previously added Data Element is deleted from the Deployed design, only the Data Element name is displayed.

Label

The **Label** field is populated based on the Data Element that you select in the Data Source. You can modify the value of this field with non-ISO characters (UTF-8), in order to support internationalization, only. The maximum allowed length is similar to Data Element label. The system does not perform a label uniqueness verification.

Analytics Log (Vendors)

You can set up Dashboards and Analyses, for Unifier Vendors data, in Oracle Business Intelligence Enterprise (OBIE) analyses.

When you open a Vendors record in the Analytics node, you will see the Analytics - Vendors Setup window that contains the following tabs, after you add a Vendor record and click Apply:

- ▶ Vendors tab
- ▶ Data Mapping tab

Vendors tab

Note: You need to first select the Business Processes that you want to set as Vendor Business Processes for use in Analytics.

In the Vendors tab, click **Add** to open the Select a Business Process as Vendor for Analytics window. The list of Business Processes in this window is in alphabetical order.

Note: Only one Business Process can be marked as Vendor, so the Add option is disabled after your selection.

Select a Business Process (Company and Shell level - Active and Inactive), then click **OK**. You can only select one Business Process.

You can remove a Vendor Business Process by selecting the item and clicking Remove.

Use the Vendors tab to select the Vendors names that you want to use in Analytics. Once selected, you can use Add to add the name or Remove to remove a Vendor.

You can remove a Vendor Business Process that is published for Analytics. To remove an item for use in Analytics, select the item from the list in the Select a Business Process as Vendor for Analytics window and click **Remove**. You can add a removed item for Analytics reporting. Click **Add** if you want to add a removed item to the list.

If the Company Administrator inactivates a Business Process marked as Vendor, and if the item is used for Analytics, then this Vendor Business Process remains in the Vendors tab.

If a Vendor is removed from the Vendors tab, data that exists in Analytics (for the removed Vendor Business Process) remains as is; however, the new data will not be published.

Data Mapping tab

The Data Mapping tab allows you to map the predefined Analytic Vendor related fields to a corresponding Data Element (DE) in the Business Process. As mentioned earlier, this tab is available after you have added a Business Process in the Vendors tab and clicked Apply or OK.

In the Data Mapping tab, the following columns, or fields, are present:

- ▶ Name
- ▶ Source
- ▶ Data Source

Name

Pre-populated and represents the fields used in OBI. These are read-only fields and you cannot modify them.

Source

Displays the location of the Data Element (DE) seen in the Data Source. The DEs for Vendor mapping are the Upper form DEs.

Data Source

Allows you to select from a list of all Upper form DEs, for the selected Vendor Business Process in the Vendors tab. The list is filtered based on the Data Definition (DD) match. You can change the mapping of the fields.

The following is a list of fields that need mapping for Vendors:

- ▶ Vendor ID
- ▶ Name
- ▶ Type

The fields displayed in the Data Source drop-down list is a concatenation of DE Label and DE Name, and the DE Name is displayed within parentheses. For example,
`Department (contract_department)`

Rules for Data Mapping

- ▶ If the Analytic field is of a String type, then all pull-downs (Integer and String), Radio Boxes (Integer and String), check boxes, and text DEs are displayed. No pickers will be seen.
- ▶ If the Analytic field is of a Pull-down type, then the list of DEs displayed in the Data Source drop-down list are filtered and only the DEs of Pull-down type are displayed. This list includes both Integer and String Pull-downs.
- ▶ If the Analytic field is of a Numeric type, then the list of values displayed is a consolidated list of all numeric data elements, which include DEs of type Integer Amount, Currency Amount, and Decimal Amount. No integer pull-downs or Radio boxes will be seen.

Scheduling Setup

Unifier sends data from all Shells, regardless of the Shell status. If you need to filter the data, based on the Shell status, you (the Administrator responsible for setting up the Analytics Schedule) must set up filter condition on the data and set up a schedule to send the data to OBI.

You can set up Scheduling by clicking the Schedule (on the log toolbar). The Schedule Setup window allows you to set the following:

- ▶ **Frequency**
- ▶ **Filters**

Note: If you change the filter setup, the change only applies to the subsequent runs. Since the scheduled runs sends incremental data (Data that has changed between runs) only, the filter change is applicable to the sent incremental data.

The default option is: Include data from all Shells.

If you select to set up a filter to include data from Shells with a particular status (Include data from Shells with Statuses), the system provides the following Shell statuses:

- ▶ Active
- ▶ On-Hold
- ▶ View Only
- ▶ Inactive

You can also exclude data. Include the Shell that you want its data to be excluded (Exclude data from selected Shells) to prevent the data in that Shell from being sent to OBI.

▶ **Data Refresh**

Select the **Refresh all data** button if you made changes to data mappings and data definitions, and want the system to apply your filtering to the existing data in OBI.

▶ **Additional Information**

In the **Send error notification to** field, specify who must receive the error notifications. Notifications are emails that contain failure of data exchange between Unifier and Analytics server. The Administrator can set up Users and Groups to receive these notifications.

Unifier sends data to Analytics periodically. To accommodate your business needs, the following additional granularity, for sending the data, is available.

A user can send data to OBIE every 4, 6, 8, or 12 hours so that the dashboards and reports in Analytics get the latest data. You can set up Scheduling by clicking the **Schedule** (on the log toolbar). The **Schedule Setup** window allows you to set the **Frequency**. Furthermore, you can update the **Publish at** values according to the frequency.

In addition, since the Company-level data that is seen in Analytics is determined by permissions (see **Granting Permissions to Set up Analytics**), user permissions impact the data that is being available to the users. An administrator can set permissions in terms of who can view the *Company-level* information from the respective level Business Processes that are enabled for Analytics.

The **Run Now** option (toolbar), in the Analytics setup page, enables the admin to run the data publish at-will, for Analytics.

Upon selecting the **Run Now** option, Unifier displays the following message: "This action will only publish the Unifier data for Analytics and will not update the data seen in Dashboards and Analyses. You must run Analytics ETL to update them. Do you want to proceed?"

This option is available for the users only if the **Modify** permission has been granted.

When the job of data publish is already running based on the schedule setup, an alert is displayed to inform the user that the job for data publish is already in progress: "Unifier data is already being published based on the schedule. You must wait for this to be complete before performing this action."

Access Control Changes for Analytics Node in User Mode Access

Use this access control to:

- ▶ Give permission to view or visit analytics or OBIEE at the company or shell levels
- ▶ Provide data level access for analytics or OBIEE dashboards

User Mode Access > Company Workspace

The root node "Non-navigational Nodes" (under Company Workspace section of the Access Control), contains the Analytics node, and the administrator can assign permissions to the root node "Non-navigational Nodes." The View option is the only permission option available for Analytics node.

When users have view permissions at Company Workspace level, the users can see the executive dashboard tab and the "Analytics" link, after opening the tab.

User Mode Access > Projects/Shells

The Analytics node is available under the "Non-navigational Nodes." The administrator can assign permissions to both users and groups.

Analytics Subject Areas and Unifier Data

Analytics subject areas use the following Unifier data:

- ▶ Generic cost sheet
- ▶ P6 Summary Sheets
- ▶ Shells
- ▶ Space Manager
- ▶ Vendors
- ▶ Business Processes

Analytics uses this subject area to analyze cost and non-cost line items in business processes.

- ▶ Business Process History

Analytics uses this subject area to analyze weekly historical business process facts to better understand changes over time. Note that dimensional business process history is not supported.

- ▶ Cash Flow

Analytics uses this subject area to analyze CBS-level cash flows. You can map columns to predefined company-level cash flow curves. Five generic columns are included to support custom labels from Unifier. Any Cash Flow families will be designated in Unifier (based on Cash Flow 'Name' value).

▶ **Cash Flow History**

Analytics uses this subject area to analyze weekly historical cash flow facts to better understand changes over time. Note that dimensional cash flow history is not supported.

▶ **Cost Sheet**

Analytics uses this subject area to analyze cost sheets. You can map your data source to a predefined list of cost sheet columns. Ten generic columns are included to support custom labels from Unifier.

▶ **Cost Sheet History**

Analytics uses this subject area to analyze weekly historical cost sheet facts to better understand changes over time.

Note: Dimensional cost sheet history is not supported.

Granting Permissions to Set Up Analytics

To initially set up the Unifier Analytics node, permissions must be enabled in the Admin and User modes.

To grant permission for Analytics (Administration Mode Access):

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, select **Administration Mode Access > Integrations > Analytics**. The **Permission Settings for: Analytics** window opens. Here you can add, modify, or remove permission settings.
- 4) Click **Add** to open a new **Permission Settings for: Analytics** window.
- 5) Click **Add Users/Groups**. The **Users/Group Picker** window opens.
- 6) Select the intended users and/or groups and click **Add**.
- 7) Click **OK** to return to the Permission Settings window.
- 8) Select the users or groups in **Select Users/Groups**, located in the upper portion of the window, and select the appropriate level of access for the user or group in **Permissions Settings**, located in the lower portion of the window.
View: This option allows users and groups to open and view the contents in **Analytics** node. Users with View permission cannot make any changes.
Modify: This option allows users and groups to configure and modify the data required for Analytics. This setting includes View permission. Users are also able to set schedule for publishing data, for various areas in Unifier, to the Oracle Business Intelligence (OBI) server.
- 9) Click **OK**.
- 10) Click **Apply** to save changes and keep the window open, or click **OK** to save changes and close the window.

To grant permission for Unifier data in Analytics (User Mode Access):

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.

- 2) In the left Navigator, expand the **User Administration** grouping node and click **Access Control**.
- 3) On the right pane, select **User Mode Access > Company Workspace > Non-navigational Nodes**.
- 4) Click **Analytics** to open the **Permission Settings for: Analytics** window.
- 5) Click **Add** to open a new **Permission Settings for: Analytics** window.
- 6) Click **Add Users/Groups**. The **Users/Group Picker** window opens.
- 7) Select the intended users and/or groups and click **Add**.
- 8) Click **OK** to return to the Permission Settings window.
- 9) Select the users or groups in Select Users/Groups, located in the upper portion of the window, and select the appropriate level of access for the user or group in Permissions Settings, located in the lower portion of the window.

View All Records: This option allows users and groups to open and view Company level Business process data and all the available project level data in Analytics. Users with **View All Records** permission cannot make any changes.

View All Company Records: This option allows users and groups to open and view only the *Company-level* information from the respective level Business Processes that are enabled for Analytics. Users with **View All Company Records** permission cannot make any changes.

View All Shell Records: This option allows users and groups to open and view all the available/mapped shell level data in Analytics, like Cost, Cashflow, and so on. Users with **View All Shell Records** permission cannot make any changes.

Note: For existing users, the first check box option (View All Records) is automatically selected, after upgrade.

Analytics and Dashboards

Each of the following dashboards has filter selections, or prompts, to help you narrow the results in the sections by the date, project, location, and so on. You can access the Analytics node in **Company Workspace > Admin mode > Integrations > Analytics**.

- ▶ **Business Process**
The Business Processes dashboard enables you to view business process data, including business process overview analyses, business process data by geographic location, and business process history analyses.
- ▶ **Cash Flow**
The Cash Flow dashboard enables you to view cash flow data, including comparisons of actuals vs. forecast and forecast vs. baseline, cash flow data by geographic location, and cash flow history analyses.
- ▶ **Cost Sheet**
The Cost Sheet dashboard enables you to view cost data, including a comparison of original and revised budget details, and cost history analyses.

Accessing the Unifier Analytics Dashboard in OBI

Users can access the Unifier Analytics dashboard designed in Oracle Business Intelligence (OBI) platform by using the provided link.

With Single Sign On (SSO)

When accessing the Unifier Analytics dashboard *with Single Sign On (SSO) enabled*, you navigate directly from Unifier to the OBI platform.

If a user goes to the OBI landing page, the accessibility of the landing page, dashboards, analyses, and so forth are controlled by the settings for the user that is logged in OBI.

If a Shell analytics user cannot go to the corresponding dashboard, the system will take the user to the default landing page set in OBI.

Without Single Sign On (SSO)

To access the Unifier Analytics dashboard *without Single Sign On (SSO) enabled*, you need to log on to the OBI server.

Accessing Unifier from OBI server

You can access Unifier from OBI server by way of Action Links. Action Links are a way of providing easy and seamless navigation from an Analysis to other local content (such as other Analyses or Dashboards) or external content (such as websites). The Action Links in Analytics allows you to view the data in Unifier.

Action Links (from OBI to Unifier)

The following is a list of available Action Links:

- ▶ Link to BP Log
- ▶ Link to BP Record
- ▶ Link to Cash Flow log
- ▶ Link to Cost Sheet log
- ▶ Link to Shell landing page
- ▶ Link to P6 Summary Sheet log
- ▶ Link to Spaces log (Space Manager)
- ▶ Link to Level log (Space Manager)

With Single Sign On (SSO)

When accessing from OBI server *with Single Sign On (SSO) enabled*, you must have appropriate permission to access a particular page, and pertinent navigation, in Unifier. For example, if you want to access a Cost Sheet using the Cost Sheet Action Link, you must have permission to access that particular Cost Sheet, for the selected project (Project Cost Sheet).

If you do not have permission to a Unifier page that is linked to an Action Link, then the system will take you to the default landing page.

Without Single Sign On (SSO)

To access the Unifier Analytics dashboard *without Single Sign On (SSO) enabled*, when using an Action Link, you need to log on to the OBI server and enter your credentials.

If a session is already in progress and you click an Action Link, the system will take you directly to the Unifier page.

Users must have appropriate permission to access a particular page, and pertinent navigation, in Unifier. For example, if you want to access a Cost Sheet using the Cost Sheet Action Link, you must have permission to access that particular Cost Sheet, for the selected project (Project Cost Sheet).

If you do not have permission to a Unifier page that is linked to an Action Link, then the system will take you to the default landing page.

About Link to BP Record

With Single Sign On (SSO) enabled, if you click the Link to BP Record (Action Link), you can launch the Unifier application and open the Business Process Record, provided that you have the appropriate permissions to the Business Process record. If you do not have the required permissions to the Business Process record, then the system will take you to the Business Process Log.

Without Single Sign On (SSO) enabled, if you click the Link to BP Record (Action Link), the system displays the Sign In page or landing page (depending on whether the session is expired or not). If you click the Link to BP Record (Action Link), you can launch the Unifier application and open the Business Process Record, provided that you have the appropriate permissions to the Business Process record. If you do not have the required permissions to the Business Process record, then the system will take you to the Business Process Log.

Accessing Analytics from Unifier

You can access Analytics from the following places in Unifier:

Company-level dashboards

The company level access is typically provided to executive level users who want to view the Analytics dashboards at a Company level. These users will be able to access data from all Shells.

Dashboards

You can access the executive Analytics Dashboards by clicking the Analytic Dashboards icon. Clicking the Analytic Dashboards icon, on the top left corner of the screen, allows you to open the Analytic Dashboards in OBIE.

The Analytic Dashboards icon can be seen by users who have access to Company level Analytics (Company Workspace > Non Navigational Nodes: View access).

Shell-level dashboards

The Shell members can configure Shell dashboards.

In the Source Details section of the Edit Dashboard window, the Analytics option for the Block Type supports Analytics for Shell details.

Any user with the Edit Dashboard permissions can add the Analytics option for the Block Type.

Publishing Unifier Data to Analytics

You must send Unifier data to Analytics periodically on an incremental basis. To send data to analytics, you will need to:

- 1) Publish Unifier data to staging tables
- 2) Run ETL Using the Primavera Analytics Administration Web Application to send data to the STAR schema of Primavera Data Warehouse.

For more details on how to use the Primavera Analytics Administration Web Application, see the *Primavera Analytics Cloud Service Administration Guide*.

You can set the frequency of sending data to Analytics to Oracle Business Intelligence (OBI), by using the **Schedule** option in the toolbar.

Note: If you need location-specific details for Spatial Data in Analytics, ensure that the values for Country and State Data Elements (DEs) are according to the ISO standards. These values can be pulldowns or plain text fields.

Schedule Setup

The frequency for the data publication can be Daily, Weekly or None. The default value is **Daily**.

You can set the frequency to **Every** __ hours, **Daily**, **Weekly**, or **None**.

The default frequency is **Daily**.

If you select **Weekly**, the system sets the day to Sunday. You can change the day.

If you select **None**, there will be no periodic publication of Unifier data to Analytics.

You can set the time for the publication of data.

You must set the time format to 24-hour notation in the form hh:mm, for the publication of data. The **Hour** drop-down lists hours from 0 to 23 for hour and 0 to 59 for minute. The default option for time is set to 00:00. The system displays the server time zone after the minute.

You must select the check box for the **Data Refresh** option if you made changes to the DD value or labels. By default, the check box is unchecked.

You must select the check box for the **Data Refresh** option if you made changes to the data mapping fields. After the run is complete, the system resets the check box for the **Data Refresh** option and the check box will be unchecked.

Mapping Linked Elements

The linked elements can be mapped to Analytics fields. The values of linked elements from the source are rendered at run-time in the destination record. However, if there are any changes to the value of the linked elements in the source record, then you need to conduct a full refresh of data in order for Analytics to display these values. As a result, you must select **Refresh All data** for this purpose.

Run History

The **Run History** option allows you to see the status of the scheduled runs of the Unifier data publication to the Analytics server. When you select the **Run History** option, by clicking **Run History** on the toolbar, the Run History window opens and displays the following information:

- ▶ **Requestor:** Is always "System"
- ▶ **Submit Date:** The date entered by user
- ▶ **Start Date:** The date entered by user
- ▶ **End Date:** The date entered by user
- ▶ **Status:** The run status

You can view the Run History details by opening a record in the Run History log.

The history details window includes the Start Date, End Date, and a message.

- ▶ Success message: *Data was sent to Analytics, successfully.*
- ▶ Failure message: For example, *An error occurred and data was not published to Analytics successfully. Contact System Administrator.* The system then displays the actual error after the generic failure message.

Unifier Configurator and OBI Server for On-Premises

The Unifier Configurator has an additional option for users to enter the URL to the OBI server. Refer to the *Unifier Installation Guide (WebLogic)* for details.

Analytics Block

The following provides detailed information about the Analytics Block window:

- ▶ **Block Title:** This field contains the title of the Analytics Block.
- ▶ **Name:** This field contains the name (as a hyperlink) of the Analytics Block.
- ▶ **URL:** This field contains the URL, entered by the user, and it must match the URL specified in the **Unifier Configurator**.

Note: The URL protocol, server path, and port must all match; otherwise, the validation fails.

Example

If the URL is: `http://slc44.us.oracle.com:7001/analytics`, the Analytics URL must be: `http://slc44.us.oracle.com:7001/analytics`.

Note: The system does not validate the other URL parameters, for example, the Dashboard name.

When you post the Analytics Block, it appears in the Source Details log and provides the following information:

- ▶ Block Title: Title entered by the user.
- ▶ Source Name: Same as the name entered in the Name field.
- ▶ Block Type: Analytics
- ▶ Result Type: Blank
- ▶ Display Type: Blank

The Analytics Block is also displayed in the Shell landing page. In the Unifier Analytics pane, you can click Analytics Dashboards to go to the shell dashboard in the Analytics server.

If a user does not have permissions to access the Shell dashboards defined in OBIEE server, then the link is disabled and displays as plain text.

You can add Analytics block to "My Dashboards." However, the link connecting Unifier to the Analytics server, from this "My Dashboards" is completely driven by the Access Control > User Mode Access > Projects/Shells > Non-navigational Nodes > Analytics.

Analytics Block and Shell Templates

The Analytics Block that is defined in the Shell dashboard of the Shell templates can be pushed to Shell instances.

Unifier and Primavera P6

Unifier receives the integrated data, from P6, and uses the data for the following **Cost** modules:

- ▶ Cost Sheet
- ▶ Cash Flow
- ▶ Earned Value (EV)

As a part of integration, you can capture the "summarized" P6 data within the Cost modules and view the information in a columnar and comparative format, for example, Cost Sheet columns, Cash Flow Curves, and Earned Value Curves). In addition, the Reporting functionality enables you to create "User-Defined" or "Custom" reports using the "summarized" P6 data.

Prerequisites for a Successful Integration

- ▶ Use CBS type Shells to use Unifier cost modules with data integrated from P6.
- ▶ Use the system Data Element `uuu_int_schedule_type` within the Integration -> Detail section of Shell attribute form definition.
- ▶ Create and Publish P6 Data Sources to pull P6 data into Cost Sheet.
- ▶ Create Shell instances corresponding to each P6 Schedule that needs to be integrated with Unifier by following these instructions:
 - ▶ Each Shell instance must have the same 'Shell Number' as the corresponding P6 Project ID.

- ▶ To bring the P6 internal Project id to Unifier, you need to add the P6 Internal Project ID field (`uuu_int_internal_proj_id`) to the Attribute form and the Integration Detail form (Company Workspace > Admin mode > uDesigner > Shell Manager > Integration > Detail)
- ▶ Create or use separate Shell Templates for Duration Based and Resource or Cost Loaded integrated Shells in Unifier because the Cost Sheet for Duration Based schedules will not contain columns rolling up from P6 Summary Sheets (when the other two types of schedules will have columns rolling up from P6 Summary Sheets)
- ▶ Include the following in the Role attribute form, if the integration will be Resource or Cost Loaded:
 - ▶ `uuu_role_imported_from_p6`
 - ▶ `uuu_role_type, uuu_role_id`
 - ▶ `uuu_role_uom`
- ▶ For correct cost calculations in Resource Loaded schedules, update all imported roles with Rate values.
- ▶ If you create Unifier Roles via integration, include the Roles above the Data Elements (DEs) in the integration detail section in uDesigner Role attribute design.
- ▶ For Resource Loaded or Cost Loaded schedules:
 - ▶ (Recommended) Do not change or update the ID of Roles created via integration manually because when you create Roles via integration the Role ID is used as the identifier by means of which the integration interface maps the P6 Resource to Unifier Role.
- ▶ If you want to integrate the CBS codes with P6, do the following:
 - ▶ Include `uuu_cost_imported_from_p6` and `uuu_int_hidden_from_p6` in the CBS attribute form
 - ▶ Define the default CBS segment values within Data Structure Setup -> Data Definitions -> Cost Codes
- ▶ If you want to create Cost Codes for a Shell using the P6 CBS structure, ensure that the Cost Sheet structure in P6 is Tree.
 - ▶ Do not include Cost Code separators (“-”, “.”) in P6 CBS Codes if you are creating Cost Codes in Unifier using P6 data.
- ▶ When working with P6 data sources or Cost Sheet columns:
 - ▶ You can create or publish P6 data sources via integration and when the "Send Summary data" integration is used.
 - ▶ You can add published P6 data sources, as columns, only in Cost Sheet Templates.
 - ▶ If you create P6 data sources via integration, and not manually, then you can add columns to Cost Sheet only after the "Send Summary data to Unifier" is used.
 - ▶ If you create P6 data sources manually, and not via integration, then create or publish P6 data sources by:
 - Creating or publishing one P6 Data Source called "Current Schedule." This data source is used by the system to define the "Type" of all Master Summary sheets (Summary sheets which contain summary data from the main P6 project which is integrated with Unifier).

- Creating or publishing all "Baseline Type" values defined within P6 Enterprise Data as P6 Data Sources.

After you create or publish the P6 data sources, you can use the P6 data sources to create columns in the Cost Sheet Template and push the information to the Shell instances.

P6 Data Sources Node

The **P6 Data Sources** node is located under the **Standards & Libraries** node. The **P6 Data Sources** node enables you to access the following information, based on your permissions:

- ▶ Data source
Captured from P6 Summary Sheets, for use in Cost Sheets or Cost Sheets Templates.
Examples of P6 Data Sources: Current Schedule Summary, Original Baseline Summary, Sanctioned Baseline Summary
- ▶ Dataset for the attribute "Type" for P6 Summary Sheets

Note: Unifier allows a maximum of 12 P6 Data Sources to be integrated, with "Current Schedule" as one of the 12 P6 Data Sources must be named.

P6 Data Sources Permissions

The P6 Data Sources node appears under the Standards & Libraries node, when in Admin mode. The following permissions are available for the P6 Data Sources:

- ▶ Create
Users with Create permission have full access to the P6 Data Sources node and is allowed to create data sources, modify existing data sources, and delete and view all data sources. If a user has "Create" permission, the remaining two permissions are enabled automatically.
- ▶ Delete/Modify
User with Delete/Modify permission will not be able to Create data sources. If a user has "Delete/Modify" permission, the "View" permission is enabled automatically.
- ▶ View
User having View Permission will not be able to Create, Modify or Delete, but will only be able to View the different data sources.

P6 Data Sources Log (Main menu)

File

New: To create a new Data Source

Open: To open a Data Source

Note: Data Sources must have unique names.

Edit

Delete: To delete a P6 Data Source

If the P6 Data Source has been published already, you cannot delete it.

Publish: To publish Data Source properties

Note: You cannot edit the name of a Data Source.

View

To find a Data Source.

Help

To access online help and documents.

P6 Data Sources Log (Toolbar menu)

New

To define a new P6 Data Source, using the New window.

Open

To open a defined P6 Data Source.

Delete

To delete an existing Data Source, one record at a time.

Publish

To make the P6 Data Source available to be added as Cost Sheet columns. You can select and Publish more than one Data Source at a time.

Note: After a Data Source is published, it appears as a "single" Data Source within a Cost Sheet or Cost Sheet Template that have the option of "Enable P6 Sources" selected in the properties. Unpublished Data Sources are not available as Cost Sheet "Single" Data Sources.

Find

To find a Data Source

P6 Data Sources Properties Window

▶ **Name**

Text (maximum 120 characters). This content of this field is from P6 and maps to the P6 Project Name.

▶ **Description**

Editable field allowing you to enter a description (maximum 500 characters).

P6 Activity Data

If you are using both Unifier and P6, you can link the two applications using Primavera Gateway and send data from a P6 Schedule to Unifier Projects. You can "pick" activities and Auto-populate (AP) or Reverse Auto-populate (RAP) from the corresponding P6 project.

Corresponding P6 Project

The term "Corresponding P6 project" refers to that P6 project which has the:

- ▶ Same ID as Unifier Project
- or
- ▶ Same ID as captured in a system element in Unifier project attributes

Maintaining Projects (Unifier and P6)

Maintain projects between the two applications by ensuring that the:

- ▶ ID of the projects match in both applications
- or
- ▶ System Data Element (DE) (`uuu_int_p6_project_id`) is present on the Shell Attribute form, and the value is the same as the corresponding P6 project ID.

If only one of the conditions above is met, then the Gateway - Unifier Provider can determine which P6 project corresponds to which Unifier project.

Note: Integration with the P6 application only applies to Unifier CBS type Shell.

P6 Activity Picker Query Configuration

You can query the P6 Activity Picker elements by using the fields associated with the P6 Activity Attribute form.

To define query conditions for P6 Activity Picker elements, from the same place as Data Picker query conditions in Unifier, switch to **Admin** mode > **uDesigner** > **Business Processes** > **Open** > **Data picker**.

In the **Query Condition** window, you can add query conditions under the **Add Query Condition** section:

- ▶ **Data Element**
A drop-down list that contains all the elements (pre-defined or custom) from the P6 Activity Attribute form. You can use the Data Element to create any query to filter out P6 Schedule activities from the P6 Activity Picker.
- ▶ **Condition**
To set conditions for the query.

P6 Data and Cash Flow Templates

You can use a Cash Flow Shell template (Shell instances and Shell templates) to select the Summary Sheets by selecting the associated P6 data sources. As a result, when you use a Cash Flow Shell template to push the Cash Flow settings, the system updates the Shell instance with the Cash Flow settings of the template.

Note: The following applies to both Distribution, Cost, and Schedule sections.

At runtime, the system uses the data from Summary Sheets, associated with the P6 data source, to render the Cash Flow curves.

Distribution and Schedule

Admin mode > Templates > Shells > Building > Template > Cost Manager > Cash Flow

In the Distribution or Schedule sections of the Cash Flow templates (with Detail level CBS), click **Select** from the Use data from P6 Sources option to open the Select Data sources window. This window displays all the data sources listed in the Standards & Libraries.

Note: The Data Type option (under the P6 Source selection option) is a required field, if you select Use data from P6 Sources option. Use the drop-down list in the Data Type field to see a list of all the data types available for the selected P6 data source.

Since the Schedule type will be blank, the Cash Flow template displays all the options available regardless of the Schedule type.

The P6 sources in Distribution, Cost (only for Actuals), and Schedule sections are always enabled in the Cash Flow templates.

The P6 Sources window (source selection) lists all the Published data sources, in alphabetical order. You can click a source name to select that source. To find a source, go to Find, click the drop-down list, and follow the prompts. Depending on the type of the Cash Flow curve, this option is available only if you select the Distribution/Schedule/cost option as Use data/dates from P6 Sources.

The Data type options for the Baseline curves are:

- ▶ At Completion
- ▶ Planned

The Data type options for the Forecast curves are:

- ▶ At Completion
- ▶ Remaining

You can copy the Cash Flow curve properties that exist in a Shell template to the Cash Flow curves that exist in instances if:

- ▶ The Shell template push is done
- ▶ The Shell template is used to create instances

Unifier and Primavera Gateway

Gateway allows data to be moved between two applications (at least one of them is a Primavera application) on schedule or on demand. It is a single integration hub where all the data integration happens with Primavera applications.

For a Unifier object to exchange data with an object in another application via Gateway, the object must be predefined within:

- ▶ Unifier Provider
- ▶ Gateway
- ▶ Oracle application/external application Provider

Additionally, objects within each Provider must have a hard-coded (Java code) link to the corresponding object (with which it exchanges data) in Gateway.

Example

To expose Unifier Project object for integration with another application via Gateway, there must be a:

- ▶ Project object defined in Unifier Provider
- ▶ Project object defined in Gateway
- ▶ Project object defined in Unifier Provider must be hard-coded (Java code) to link to Gateway Project object

Correspondingly, to exchange data with Unifier Project object, the Oracle application/external application Provider must have a Project object within it and that object must be hard coded (via java coding) to link to Gateway Project object.

Unifier Objects and Gateway

Unifier sends data to the Oracle application through Gateway. The following Unifier objects can be integrated with Oracle applications via Gateway:

- ▶ **Projects/Shells:** You can create and update Projects in Unifier using project data from an external application via Gateway. The exchange of information is bidirectional, from the Oracle application to Unifier and from Unifier to the Oracle application.
- ▶ **Business Processes:** You can create and update Business Process records using data from external applications sent to Unifier via Gateway. The exchange of information is bidirectional, from the Oracle application to Unifier and from Unifier to the Oracle application.
- ▶ **Roles:** You can create and update Roles using data sent over from Gateway. The exchange of information is bidirectional, from Oracle application to Unifier and from Unifier to the Oracle application.
- ▶ **CBS Codes:** You can create CBS codes, within a Cost Sheet, using data sent over from Gateway. The exchange of information is one-directional, from the Oracle application to Unifier.

Note: Integration with P6 application applies to CBS Shell-type only.

Document exchange support through Gateway

Unifier supports exchanging documents attached to BP records or Line Items through Gateway. In particular, through integration between Unifier and Gateway, Gateway performs as an intermediary and supports:

- ▶ Attaching documents to the respective BP records, or Line Items, while importing the documents into Unifier.
- ▶ Exporting documents (attached to BP records, or Line Items,) out of Unifier and to any Oracle application which is receiving the BP records or Line Items.

Notes:

- The Oracle application must support receiving and exporting documents.
 - After the documents are sent across to the Oracle application, the system deletes the documents from Gateway.
-

Gateway Objects and Unifier Provider Objects

Business Processes

When you deploy a BP design to Gateway, the system maps to the BP design, in Gateway, in two ways:

- ▶ Mapping to the existing, predefined, objects in Gateway.
- ▶ Mapping to a newly created object in Gateway, under Unifier Provider.

Mapping to a newly created object in Gateway requires that you:

- ▶ Use the dynamic object mapping, in Gateway, to map the newly created objects from Unifier Provider to an existing object in Gateway.
- or
- ▶ Create a new object in Gateway and map the Unifier Provider object to newly created object in Gateway.

The new objects created in Unifier Provider contain the following default information:

- ▶ Object name.
- ▶ A description
- ▶ Fields (including respective properties) associated with the design

Before you can use the object, you must configure the remaining information for the newly created object:

- ▶ Data related to Flow Type
- ▶ Cross-reference to the Gateway object

After you complete mapping the object in Gateway, you can use the object for creating business flows in Gateway and use the data.

Configuring Unifier Objects on Gateway

By default, the mapping of data involves the following applications in order:

- 1) Unifier
- 2) Unifier Provider on Gateway
- 3) Gateway Provider on Gateway

Mapping to a newly created object in Gateway requires that you match the information of that object in Gateway to the information of the object that you deployed from Unifier. In Gateway, after you find and select an object that you can use (that is, an object that has matching information), you can proceed by cross-referencing the object in Unifier to the selected object in Gateway.

Default Gateway Objects

The following table lists the object names that are available for mapping in Gateway, by default, and provides a description:

Item	Object Name	Description
1	BlanketPurchaseOrder	A company level purchase order, which enables agreements with vendors to provide services across multiple projects, released on a per-project/per-period basis with work authorizations against a previously determined maximum
2	BlanketPurchaseOrderDetail	Line Items for Blanket Purchase Orders
3	Contract	Base Commit for EPC Activities (SOV = Payment Application)
4	ContractDetail	Line Items for Contracts
5	PurchaseOrder	To track money committed to be spent (General Spends type Base Commit)
6	PurchaseOrderDetail	Line Items for Purchase Orders
7	WorkRelease	Process that is connected to Blanket Purchase Order Business Process that is deployed at company level. This process can be used to write against the blanket purchase order
8	WorkReleaseDetail	Line Items for Work Releases
9	ChangeOrder	A formal commit change to the contract.
10	ChangeOrderDetail	Line Items for Change Orders
11	POAmendment	Approval process for purchase order changes.

Item	Object Name	Description
12	POAmendmentDetail	Line Items for PO Amendments
13	Invoice	A general process for requesting and approving payments against commitments (invoice at the CBS or breakdown level, do not calculate retainage or stored materials)
14	InvoiceDetail	Line Items for Invoices
15	PaymentApplication	A process to track your payment information using a standard payment application method (for example, tracking retainage, stored materials, past payments, and so on)
16	PaymentApplicationDetail	Line Items for Payment Applications
17	Estimate	Used to create multiple project estimates and identify the preferred scenario.
18	EstimateDetail	Line Items for Estimates
19	BudgetApproval	Used to approve project budget
20	BudgetApprovalDetail	Line Items for Budget Approval
21	BudgetChange	For requesting additional (or reduced) budget beyond the existing budget.
22	BudgetChangeDetail	Line Items for Budget Changes
23	BudgetTransfer	For transferring budget from one CBS code to another. Most typically used to release budget contingency to other cost items.
24	BudgetTransferDetail	Line Items for Budget Transfers
25	PotentialChangeOrder	Contractor initiated potential change order
26	PotentialChangeOrderDetail	Line Items for Potential Change Orders
27	JournalEntry	A process for adjusting spends line items. Most commonly used to reassign costs to alternate cost centers or GL codes; Generic spend to transfer across cost codes
28	JournalEntryDetail	Line Items for Journal Entries
29	Payment	BP to hold Checks Processed Information from Financial System.

Item	Object Name	Description
30	PaymentDetail	Line Items for Payments
31	RiskAndIssue	A log for documenting, tracking, and estimating impacts of open issues and risks; Log of items that may impact schedule/scope/cost
32	RiskAndIssueDetail	Line Items for Risks & Issues
33	FundAppropriation	Fund accounts as assigned to projects
34	FundAppropriationDetail	Line Items for Fund Appropriations
35	ProjectInformation	Project attribute information
36	VendorEvaluation	Document vendor performance for consideration for future work (Simple)
37	Vendor	Company vendor directory
38	Vendor Detail	Line Items for Vendors
39	Timesheet	Used to capture Employee Timesheets (project / non-project hours)
40	TimesheetDetail	Line Items for Timesheets
41	RequestforSubstitution	A change of identical material or equipment
42	RequestforSubstitutionDetail	Line Items for Request for Substitution
43	BudgetChangeOrder	A change to a budget that is typically created for a contractor that is based on changes to a contract between the contractor and owner
44	BudgetChangeOrderDetail	Line Items for Budget Change Orders
45	BudgetItem	A budget that is typically created for a contractor that is based on a contract they have with an owner for a project
46	BudgetItemDetail	Line Items for Budget Items
47	PaymentApplicationtoOwner	A payment application that is raised by a contractor to the owner in order for the contractor to receive payment
48	PaymentApplicationtoOwnerDetail	Line Items for Payment Applications to Owner

Item	Object Name	Description
49	PaymentFromOwner	A record of the actual payments a contractor will have received from the owner based on the payment application they presented to the owner
50	PaymentFromOwnerDetail	Line Items for Payments From Owner

User-Defined Report (UDR)

Unifier displays a project-level/company-level UDR that is enabled for integration in the log of the Business Objects node (**Company Workspace > Admin mode > Integrations > Gateway > Business Objects**).

You can export data, generated out of a project-level/company-level UDR that is enabled for integration, to an Oracle/external application Provider through Gateway.

To export, you can select the listed UDR and click Deploy to send the data in the UDR to Gateway and use the data for integration with an Oracle/external application Provider.

Gateway Node in Unifier

To access the **Gateway** node, go to **Company Workspace > Admin mode > Integrations > Gateway > Business Objects**.

The **Gateway** node provides the following information on the **Gateway Integration** landing page:

- ▶ **API URL**
 - ▶ This element captures the Gateway API URL that Unifier goes to in order to establish connection with Gateway.
 - ▶ Data Definition: SYS Description Text 250
- ▶ **User Name**
 - ▶ This element contains the user's name who logs into Gateway URL.
 - ▶ Data Definition: SYS Long Name
- ▶ **Unifier Deployment**
 - ▶ Allows you to enter the name of the Unifier Deployment, which needs to be accessed to exchange data with external applications
 - ▶ Data Definition: SYS Short Description Text 250
- ▶ **Integration Parameters** block
 - ▶ **Source Base Currency**
 - ▶ **Activity Sheet Synchronization**
 - **Import Synchronization** (The import synchronization that is selected for Activity and Assignment data for customers with access to the EVM feature and import synchronization that is selected for Activity data for customers without access to the EVM feature.)
 - **Export Synchronization**

▶ **Rate Sheet Synchronization**

To see the **Integration Settings**, click **Open** from the toolbar to open the **Integration Settings** window. In the **Integration Settings** window, you can edit fields and run tests. The Integration Settings window contains the following blocks and fields:

Gateway block

- ▶ **API URL**
- ▶ **User Name**
- ▶ **Password**
 - Contains the password required to log on to the Gateway URL.
 - Data Definition: Short Description Text
- ▶ **Test Connection**
 - Enables you to run a test to verify that the Gateway URL and other credentials are valid. See the **Testing Connection** section later in this topic.
- ▶ **Unifier Deployment**
 - Allows you to enter the name of the Unifier Deployment, which needs to be accessed to exchange data with external applications
 - Data Definition: SYS Short Description Text 250

Integration Parameters block

Select Source Base Currency for Rate Conversion

- ▶ **Currency**
- ▶ **Select Synchronizations to exchange Activity data**
- ▶ **Import Synchronization** (editable drop-down (size 250 chars))
- ▶ Contains the name of the Gateway Synchronization, which will be used to Import Activity data from Unifier to P6
- ▶ Using the Gateway URL and the Unifier Deployment details captured within the **Integration** tab of "Company Properties," this field lists all the "Import" synchronizations from the URL, which are applicable to the mentioned Unifier Deployment.
- ▶ The synchronizations shown in the drop-down will be the ones that match the Unifier Deployment. It lists the OOTB synchronizations provided for Oracle Primavera Cloud.

Note: For Unifier, this is an "Import" synchronization (to import data).
From P6 perspective, this is an "Export."

For customers with or without access to the EVM feature, the import synchronization that is selected in **Select Synchronizations to exchange Activity data** will be the import synchronization that is selected for EVM data, provided customer selected that prior to upgrade to 20.7; otherwise, the synchronization selected will be from **Select Synchronizations to exchange Activity data**.

For all customers, the activity import synchronization that is selected in **Select Synchronization to exchange Activity and Assignment data** prior to upgrade to 20.7 is shown as selected under import synchronization **Select Synchronization to exchange Activity data**. If there is no synchronization selected in **Select Synchronization to exchange Activity and Assignment data**, then the synchronization selected in **Select Synchronization to exchange Activity data** must be selected. If none of them are selected prior to upgrade to 20.7, then the import synchronization will be empty.

Starting from 20.7, customers with or without access to the EVM feature can get data from P6, and the existing export synchronization and Import Synchronization selected from Role and Resources synchronization will not have any impact.

▶ **Export Synchronization** (editable drop-down (size 250 chars))

Contains the name of the Gateway Synchronization which will be used to Export Activity data from P6 to Unifier

Using the Gateway URL and the Unifier Deployment details captured within the 'Integration' tab of Company Properties, this field lists all the "Export" synchronizations from the URL which are applicable to the mentioned Unifier Deployment.

The export synchronization shows additional OOTB synchronizations "**Send Activity data from Unifier to Primavera Cloud**" defined for Oracle Primavera Cloud. You will be able to push the updated activity data to Oracle Primavera Cloud, using the export synchronization.

The Export Synchronization option "Update Activity data from Unifier to Primavera Cloud" enable you to send updated activity data from Unifier to the Oracle Primavera Cloud. When you are using Oracle Primavera Cloud data for scheduling a project, you can bring the activities, schedules, and the associated WBS to the Unifier Activity Sheet. From the Activity Sheet, Unifier pulls the activity attributes into the business processes. In the business processes, you can update the schedules and reverse auto-populate (RAP) data back to the Activity Sheet. In the **Unifier Activity Sheet** log of the projects that are synchronized with Oracle Primavera Cloud, the **Send Data** option enables you to send the updated schedules back to the Oracle Primavera Cloud. The business flow updates the activity data in Oracle Primavera Cloud according to the activity data in Unifier.

Note: For Unifier, this is an "Export" synchronization (to export data), from P6 perspective, this is an "Import."

▶ **Import Synchronization** (editable drop-down (size 250 chars))

Contains the name of the Resource and Role Rates from P6 for EVM Copy.

When you make changes in the **Integration Settings** window, you must click **OK** to save your changes. Click **Cancel** to close the **Integration Settings** window.

Testing Connection

To run a test to verify that the Gateway URL and other credentials are valid use the **Test Connection** option, in the **Gateway** block. If the system is unable to establish connection, you will receive an error message. If the system is able to establish connection, you will receive a confirmation message.

Business Objects Node in Unifier

You can expand the **Gateway** node to see the **Business Objects** node (**Company Workspace > Admin mode > Integrations > Gateway > Business Objects**). When you click the **Business Objects** node the Business Objects log appears on the right.

The Business Objects log in Unifier provides the following information:

- ▶ List of Unifier objects that have been deployed from uDesigner. The objects are:
 - ▶ Projects/Shells (Attribute form)
 - ▶ Business Processes

Note: The following types of BPs are not supported for integration:
Project/Shell Creation BP - Resource BP - RFB BP - Text BP.

- ▶ Roles (Attribute form)
- ▶ CBS Codes (Unifier CBS Shell-type only)
- ▶ Detailed information about each object that has been deployed:
 - ▶ Name
 - ▶ Category
 - ▶ Type
 - ▶ Last Updated
 - ▶ Last Deployed to Gateway
- ▶ A mean to deploy a Business object that is ready to Gateway
 - ▶ Deploy to Gateway

In the Business Objects log, the columns provide detailed information about each Unifier object that has been deployed.

Column name	Description
Name	The name of the object.
Category	The category of the object: Business Processes, Shell Manager, and so forth
Type	The type of object: Activity Sheet Attributes (from P6 and not defined in uDesigner), Resource Attributes, Roles Attributes, Cost, Simple, Shell Type, Document, Line Item, and so forth.
Last Updated	The date when the object was last updated, which is the Unifier object "Deploy" date from uDesigner.
Last Deployed to Gateway	The date when the object was last deployed to Gateway.

In the Business Objects log, the *menu* enables you to:

- ▶ Deploy an object to Gateway
 - ▶ Edit
- ▶ Find an object by applying filters
 - ▶ View
- ▶ Review the history of a Unifier object
 - ▶ View
- ▶ Access Unifier Help, documentation library, and productivity kit
 - ▶ Help

In the Business Objects log, the *toolbar* enables you to:

- ▶ Deploy an object to Gateway
 - ▶ **Deploy to Gateway**
- ▶ Review the history of an object
 - ▶ **History**
- ▶ Find an object by applying filters
 - ▶ **Find**

Deploy to Gateway

When deployed to Gateway, the system appends the attributes of the objects in **Unifier** to the corresponding object in **Unifier Provider**. You can select multiple items and deploy the selected items to Gateway. For the selected objects, the user can create the following and synchronize the data exchange:

- ▶ Data Mapping templates
- ▶ Business Process flows

If the "Integration" form of the following is set in uDesigner, you can use this option to deploy:

- ▶ Activity Sheet Attributes (as captured in Unifier > Unifier Provider > Gateway)

The deploy action only sends the values that you had manually entered in the Activity Attribute form to Gateway.

The "Activity Sheet" object in Gateway contains all the pre-defined Activity Attributes fields by default.

If you have added `bitemID` field in the Activity Sheet, then the P6 CBS code (P6) can then be mapped to the `bitemID` in the field mappings on Gateway.

- ▶ Projects/Shells (Attribute form)
- ▶ Business Processes
 - Data Elements of type SYS Rich Text must not be sent to Gateway, when deployed.
- ▶ Roles (Attribute form)
- ▶ CBS Codes (Unifier CBS Shell-type only)
- ▶ Project/Shell-level User-Defined Reports (UDRs)
- ▶ Company-level UDRs

How to exchange data through UDR with an Oracle application Provider

You can export the data generated out of a UDR through Gateway and out to an external system. UDRs that are enabled for integration (that is, the **Enable for Integration** option is selected) appear in the Business Objects node log, under Gateway in Company Workspace. You can deploy these UDRs and integrate them with Oracle integrators.

Note: For a UDR to be eligible for deploying to Gateway, you must select the **Enable for Integration** option.

All the UDRs, which have been enabled for integration (that is, the **Enable for Integration** option is selected), are listed in in the Business Objects node, and you can choose to deploy those UDRs to Gateway to configure them for Data Exchange.

The Business Objects node log displays UDR types and categories.

All Project/Shell-level UDRs have Project/Shell level as their type and User Defined Report as their category.

All company-level UDRs have company-level as their type and User Defined Report as their category. You can search for and find a UDR Business Object by type or category.

If you deselect the "Enable for Integration" option of a UDR after it has been deployed to, and configured in (for a Business Flow), Gateway, the system generates an error when synchronizing.

If you delete a UDR that you have recently deployed to, and configured in (for a Business Flow), Gateway, the system generates an error when synchronizing.

When a Line Item Type BP is deployed to Gateway, from Unifier, the system creates two objects for that BP.

You can create different field mapping templates, according to the template requirements, and use the templates in different Business Flows to transfer the data.

If you share documents between Unifier and any Oracle application, and the Oracle application does not support document integration, the system completes the Business Flow but without transferring the documents.

History

The system logs all the deployed Unifier objects in History. The **History** option allows you to view the status of a deploy action, informing you whether the deployment was successful, in addition to the following information:

- ▶ Requestor
The name of the user who has deployed the record.
- ▶ Source
If you select objects of same type and deploy, then the system provides all selected objects (including names of all objects which were chosen by you for deploy) in alphabetical order.
If you select objects of multiple types and deploy, then the system provides separate history entries for each of the objects that are getting deployed to Gateway.
- ▶ Start Date

The date when the deployment action started (Unifier started to prepare the xml file for Gateway).

- ▶ End Date

The date when the deployment action ended.

- ▶ Status

The status of deployment action (Finished, In Progress, Finished with Errors).

In the History window toolbar, you can:

- ▶ Open

To open an item in the History log.

- ▶ Similar to the Open option in other "History" windows in Unifier, this action opens the "History Details" window.
- ▶ Similar to other places in Unifier, you can take this action on one selected row only.

- ▶ Find

To allow you to search the History records. You can search on all columns (Requestor, Attribute Form, Submit Date, Start Date, End Date, Status).

- ▶ Close Window

To close the History window.

History Details

- ▶ If you select a row in the History window and click Open, the History Details window opens. This window includes information about:
 - ▶ Business Processes

The name of the attribute form that was deployed.
 - ▶ Gateway URL

The Gateway API URL through which link to the 3rd party applications is established, as defined by the user within Unifier Company Properties > Integration tab.
 - ▶ Unifier Deployment Name

The name of the Unifier Deployment as defined within the Unifier Company Properties > Integration tab.
 - ▶ Deploy action status details

The details of the status of the deploy action, successful or not.

Find

The Find option allows you to search for records in all the Business Objects window columns.

Configuring Permissions for Business Objects

To configure the permissions for Business Objects, go to: **Company Workspace > Admin mode > User Administration > Access Control**. The Access Control node includes the **Gateway** node.

To set permission for **Gateway** node:

▶ **Configure**

If you check this permission, the user can update the "Integration Settings" at "Gateway Integration" landing page.

▶ **Get / Set Activity Sheet Data**

If you check this permission, the user can do the following from the Shell log File menu (Unifier CBS type Shell):

▶ **Get Activity Sheet Data** (from the Shell toolbar):

- All Shells
- Selected Shells
- Filtered Shells
- History

▶ **Send Activity Sheet Data** (from the Shell toolbar):

- All Shells
- Selected Shells
- Filtered Shells
- History

Permission for "Get / Set Activity Sheet Data" from Shell log are configured in Admin mode while permissions to take these actions from within a Shell are given at User mode level.

To set permission for Business Objects node:

Deploy

If you check this permission, you will enable the Deploy option, in the right pane of the Business Objects page.

You can grant permissions, for Business Objects, by way of the User Mode Access in Access Control node: **Company Workspace > Admin mode > User Administration > Access Control > User Mode Access > Projects/Shells > Activity Manager > Activity Sheet.**

Note: You can move the Activity Sheet module under other nodes.

The following permissions are available for **Activity Sheet**:

▶ **Get Data**

If you check this permission, the user can go in the **Activity Sheet (Shell > User mode > Activity Manager > Activity Sheet)** and perform "Get Activity Sheet Data" or view "History."

If you select the "Get Data" permission, the "View" permission will be selected automatically. In addition to the "Get Data" permission, the user needs the "View" permission in order to be able to have the "Get Activity Sheet Data" permission. You can grant "View" permission without granting the "Get Data" permission.

▶ **Send Data**

If you check this permission, the user can go in the **Activity Sheet (Shell > User mode > Activity Manager > Activity Sheet)** and perform "Send Data" or view "History."

If you select the "Send Data" permission, the "View" permission will be selected automatically. In addition to the "Send Data" permission, the user needs the "View" permission in order to be able to have the "Send Activity Sheet Data" permission. You can grant "View" permission without granting the "Send Data" permission.

▶ **View**

If you check this permission, the user can view **Activity Sheet** data (**Shell > User mode > Activity Manager > Activity Sheet**) and perform "Open."

The permissions above are also available:

- ▶ When granting permissions through User Administration (**Company Workspace > Admin mode > User Administration**).
- ▶ Within a Shell Template or Shell Instance Access Controls.
- ▶ When granting permissions within a Shell Template or Shell Instance Access Control through User Administration.
- ▶ Where all nodes are listed in the Unifier Navigator (User mode), when appropriate.

Unifier Provider, Unifier, and Gateway

The following objects are available in Unifier Provider:

- ▶ **Project:** Includes attributes that support the creation of projects by way of Gateway. The Project object in Unifier Provider includes the following information:
 - ▶ Status
 - ▶ Location
 - ▶ Template Number
- ▶ **Business Processes (BPs):** Enables you to create/update different types of BPs such as Cost, Line Item, Document, and so forth. To correspond to the Gateway infrastructure, separate objects are available to capture the information in the BP Upper Form and Detail tab. To support the creation of BPs, the Business Processes object in Unifier Provider includes the following information:
 - ▶ Name
 - ▶ Status
 - ▶ Detail tab Name
- ▶ **Roles:** Enables you to create/update Roles (Resource Manager > Roles) if you have access to the Resource Manager feature.
- ▶ **Resources:** Enables you to create/update Roles (Resource Manager > Roles). If you have access to the Resource Manager feature, you can use the Resources object to identify whether data from Unifier Provider can create a Role.
- ▶ **CBS Codes** (Unifier CBS Shell-type only):
 - ▶ Enables you to use the CBS object in Unifier Provider to import/export the CBS code data from Unifier.
 - ▶ Enables you to use the CBS object in Unifier Provider to import the CBS code data into Unifier.

The following provides more details.

Project/Shell

To create/update Project/Shell in Unifier, you can use the following attributes:

- ▶ Data Dictionary
- ▶ Business Flow
- ▶ Synchronization
- ▶ End-to-end solution

The following sections provide more details.

Project/Shell Data Dictionary

The following table describes the Data Dictionary for Unifier Provider (Project/Shell):

Attribute Name	Description
Status	<p>To capture the status of projects.</p> <p>Since projects must have one of following statuses, the user must define the data value mapping XML to map status of source project and to a project status value.</p> <ul style="list-style-type: none"> ▶ Active ▶ On-Hold ▶ View-Only ▶ Inactive
Location	<p>The location of the destination Unifier Project.</p> <p>Example</p> <p>All Regions > Sites > Properties</p>
Template	<p>The "Number" of the template which must be used to create a new project.</p> <ul style="list-style-type: none"> ▶ Shell Template Numbers are enforced to be unique across all shell template types. ▶ The system determines the "Type" of the shell that must be created, using the template number.

Project/Shell Business Flow

When defining a Business Flow in Unifier Provider (Project/Shell), the destination application parameters for Unifier Provider, Project object, enable you to define the location (Location) and template (Template) as parameters. These attributes are specific to Unifier and eliminate the need for the source application to send values for fields.

If the source application sends value for either of the parameters mentioned below via data mapping and you define the parameter value in the business flow, then the value sent by way of mapping takes precedence.

The following parameters are required for successful project creation in Unifier.

Note: Oracle recommends that you set these parameters as "Required" in the Business Flow definition.

Object	Value	Description
Project Location	<p>This is a Text field. You must enter only one location.</p> <p>Example All Regions > Sites > Properties</p> <p>If you enter multiple locations, Unifier Provider will not be able to resolve the location and project creation will fail.</p>	<p>Use this parameter to identify the location (Location): Where the Unifier project must be created.</p> <p>You can also add the location as "Shell Attribute" (uuu_location) when defining the "Project" object filters.</p> <p>If you define the location parameter as a shell attribute (uuu_location = <xyz>), and use the available drop-down field (Location) for the Project object, then project creation will fail.</p> <p>If you add a filter row by selecting the fields as Shell Attribute Form and provide a value of the Shell Location, for Project object, then project creation will fail.</p>
Project Template Number	<p>This is a Text field. You must enter only one number.</p> <p>If you enter multiple numbers, Unifier Provider will not be able to resolve the template and project creation will fail.</p>	<p>Use this parameter to identify the templates which must be used to create the new Project.</p>

Project/Shell Synchronization

Synchronization in Unifier Provider (Project/Shell) occurs when you set the parameters (Project Location and Project Template Number) as "Required" or "Optional" in the Business Flow definition.

Project/Shell End-to-End Solution

The following explains the end-to-end solution for Unifier Provider (Project/Shell). The configuration settings are for:

- ▶ Unifier
- ▶ Unifier Provider

To configure the creation of projects in Unifier via Gateway:

Note: This is an optional step. You can skip deploying the objects from Unifier and add relevant fields in Gateway Data Mapping Templates directly, manually.

Go to **Company Workspace > Admin mode > Gateway > Business Objects**.

Deploy the Shell Attribute Forms of the shells that you want to create in Unifier, via Gateway Integration.

All fields from the deployed Shell Attribute Forms appear as attributes of Project object in the Provider Data Dictionary.

To configure the creation of projects in Unifier Provider via Gateway:

You must:

- ▶ Create Data Mapping Templates
- ▶ Define Business Flow
- ▶ Define Synchronizations
- ▶ Synchronize

The following provides the details for each step:

Create Data Mapping Templates

Create Data Mapping Templates to map attributes of the Shell that needs to integrate with the Oracle application. All attributes of the Data Dictionary Project object are available to be added to the Data Mapping Template.

Note: Ensure that you create one Data Mapping Template per Shell type.

If you do not want to deploy from Unifier and want to create the Data Mapping Templates in Gateway directly, then add each Shell Attribute Form Data Element that needs to receive data from the Oracle application Project object, manually.

If you want to deploy from Unifier, after adding the Shell Attribute Form Data Element, then:

- ▶ If the manually added field is same as one of the fields that were deployed from Unifier, then there will be no adverse impact on the existing fields.

- ▶ If the manually added field does not exist as a Data Element in Unifier, then there will be no adverse impact on the existing fields.

The fields remain as they are when the Oracle application sends values for the fields that were added to Unifier Provider and those values are not sent to Unifier.

Define Business Flow

Define Business Flow using the appropriate Data Mapping Template.

Create one Business Flow per Shell type.

Add the appropriate source (Source) application parameters to filter the projects that you want to create.

Add the values of relevant destination (Destination) application parameters (Location and Template).

Configure the Business Flow to be used for creating (Create) and updating (Update) the project.

Define Synchronizations

Define Synchronizations by using the appropriate Business Flow.

Define the appropriate parameter values for data exchange.

Define the schedule frequency so that the synchronization does not have to be run manually for the project creation or update.

Synchronization

When a synchronization is run, Unifier Provider sends data to Unifier to:

- ▶ Create or update a Shell instance (as per Business Flow configuration).
- ▶ Populate the Data Element with the name of the application that is integrating with Unifier, if the destination Shell Attribute Form contains the "uuu_integrated_with" Data Element.

Note: Gateway sends the application name value. The name is not hard-coded by Unifier.

Gateway maintains a cross-reference table between objects of the two applications to monitor whether to create or update the records of an object. The cross-reference table has IDs of projects in Unifier and P6. If the cross-reference table has an entry for a Unifier project against a P6 project, then Gateway will update the Unifier project; otherwise, Gateway will create a Unifier project.

Note: If a project exists in Unifier and does not have an entry in the Gateway cross-reference table, then when Gateway proceeds to create a project, the create request is converted to update request and the existing project is updated, instead of creating a new project. This prevents creating a duplicate project.

Business Processes

To create/update Business Process records in Unifier, you can use the following attributes:

- ▶ Data Dictionary
- ▶ Business Flow
- ▶ Synchronization
- ▶ End-to-end solution

The following sections provide more details.

Business Processes Data Dictionary

Data Dictionary (Unifier Provider Business Processes)

Notes:

- The remaining attributes are deployed from Unifier, as Data Elements, and will be added to relevant business processes, per business need.
 - If available, the Object IDs in Gateway are noted in the corresponding field.
 - The Parent Element ID is the tag in the Line Item which connects the Line Item with the parent record in which the Line Item has to exist in.
 - Create separate templates for importing data into different BPs.
-

Item	Object Name	Description	Object Attributes
1	Company Costs	<p>Business processes that hold company level costs.</p> <p>When deployed from Unifier, the Upper forms of the Business Processes of the following category provide data for this object:</p> <p>Type = Cost AND Sub-type = Commit at Company Level AND Classification = <Null> OR Generic</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Status (status) ▶ Amount (amount)

Item	Object Name	Description	Object Attributes
2	Company Costs Detail	Detail tabs of Company Cost business processes. When deployed from Unifier, the Detail tabs of all business processes that are in Company Costs category provide data for this object.	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Short Description (short_desc) ▶ Item Quantity (uuu_quantity) ▶ Item Unit Cost (uuu_unit_price) in Unifier Provider and PricePerUnit in Gateway Object field (S.No 4) ▶ Amount (amouInt)

Item	Object Name	Description	Object Attributes
3	Project Commits	<p>Project level business processes related to money committed to be spent.</p> <p>When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object: Type = Cost AND Sub-type = Line Items with CBS Code OR Line Items with Multiple Codes AND Classification = Base Commit OR Change Commit</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Due date (due_date) ▶ Effective Date (uuu_effective_date) ▶ Transaction Currency (currencyid) ▶ Rate in Project Currency (currencyrate) ▶ Status (status) ▶ Description (description) ▶ Amount (amount) ▶ Publish Path (uuu_dm_publish_path) ▶ Reference BPO (ref_bpo) ▶ Contract/PO (refid)

Item	Object Name	Description	Object Attributes
4	Project Commits Detail	<p>Detail tabs of the Project commits type business processes.</p> <p>When deployed from Unifier, the Detail tabs of all business processes that are in Project Commits category provide data for this object.</p>	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Cost Code (bitemID) ▶ Short_Description (short_desc) ▶ Description (description) ▶ Work Package (wpid) ▶ Item Quantity (uuu_quantity) ▶ Item Unit Cost (uuu_unit_price) in Unifier Provider and PricePerUnit in Gateway Object field (S.No 4) ▶ Amount (amount) ▶ Reference BPO Lineitem (ref_bpo_lineitem) ▶ Reference (uuu_sovlinum) ▶ Parent Detail Id (ParentDetailId)

Item	Object Name	Description	Object Attributes
5	Project Invoices	<p>Invoice-related Project level business processes. When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Cost AND Sub-type = Line Items with CBS Code OR Line Items with Multiple Codes AND Classification = General Spends OR Payment Applications</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Due date (due_date) ▶ Effective Date (uuu_effective_date) ▶ Contract/PO (refid) ▶ Transaction Currency (currencyid) ▶ Amount (amount) ▶ Status (status) ▶ Publish Path (uuu_dm_publish_path)

Item	Object Name	Description	Object Attributes
6	Project Invoices Detail	<p>Detail tabs of the Project invoices type business processes.</p> <p>When deployed from Unifier, the Detail tabs of all business processes that are in Project Invoices category provide data for this object.</p>	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Cost Code (bitemID) ▶ Short_Description (short_desc) ▶ Description (description) ▶ Work Package (wpid) ▶ Item Quantity (uuu_quantity) ▶ Item Unit Cost (uuu_unit_price) in Unifier Provider and PricePerUnit in Gateway Object field (S.No 4) ▶ Amount (amount) ▶ Effective Date (uuu_effective_date) ▶ Scheduled Value (scheduled_value) ▶ Parent Detail Id (ParentDetailId)

Item	Object Name	Description	Object Attributes
7	Other Project Costs	<p>Project level business processes that capture costs other than commits or invoices.</p> <p>When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Cost AND Sub-type = Line Items with CBS Code OR Line Items with Fund Code OR AND Classification = Generic OR Transfer OR</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Status (status) ▶ Amount (amount) ▶ Publish Path (uuu_dm_publish_path)

Item	Object Name	Description	Object Attributes
8	Other Project Costs Detail	<p>Detail tabs of the Other Project costs type business processes.</p> <p>When deployed from Unifier, the Detail tabs of all business processes that are in Other Project Costs category provide data for this object.</p>	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Cost Code (bitemID) ▶ Fund Code (uuu_fund_code) ▶ Short_Description (short_desc) ▶ Description (description) ▶ Item Quantity (uuu_quantity) ▶ Item Unit Cost (uuu_unit_price) in Unifier Provider and PricePerUnit in Gateway Object field (S.No 4) ▶ Amount (amount) ▶ Effective Date (uuu_effective_date)

Item	Object Name	Description	Object Attributes
9	Project Simple	<p>Project level Simple business processes.</p> <p>When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Simple AND Level = Project/Shell</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Status (status) ▶ Publish Path (uuu_dm_publish_path)
10	Company Simple	<p>Company level Simple business processes.</p> <p>When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Simple AND Level = Company</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Status (status) ▶ Due Date (due_date) ▶ Publish Path (uuu_dm_publish_path)

Item	Object Name	Description	Object Attributes
11	Company Line Item	<p>Company level Line Item type business processes.</p> <p>When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Line Item AND Sub-Type = Any AND Level = Company</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Status (status) ▶ Due Date (due_date) ▶ Publish Path (uuu_dm_publish_path)
12	Company Line Item Detail	<p>Detail tabs of the company Line Item type business processes.</p> <p>When deployed from Unifier, the Detail tabs of all business processes that are in Company Line Item category provide data for this object.</p>	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Short Description (short_desc)

Item	Object Name	Description	Object Attributes
13	Project Document	<p>Project level Document type business processes. When deployed from Unifier, the Upper forms of the business processes of the following category provide data for this object:</p> <p>Type = Document AND Sub-Type = Any AND Level = Project/Shell</p>	<ul style="list-style-type: none"> ▶ Record Number (record_no) ▶ Title (title) ▶ Creator (uuu_creator_id) in Unifier Provider and CreateUserId in Gateway Object field (S.No 2) ▶ Creation Date (uuu_creation_date) in Unifier Provider and CreateDate in Gateway Object field (S.No 1) ▶ Short Description (short_desc) ▶ Status (status) ▶ Publish Path (uuu_dm_publish_path)

Item	Object Name	Description	Object Attributes
14	Project Document Detail	Detail tabs of Project Document type business processes. When deployed from Unifier, the Detail tabs of all business processes that are in Project Invoices category provide data for this object.	<ul style="list-style-type: none"> ▶ Parent Record Number ▶ Line No./LiNum in Unifier Provider and LineNo in Gateway Object field (S.No 3) ▶ Tab Name (uuu_tab_id) ▶ Name (uuu_Name) ▶ Short Description (short_desc) ▶ Line Item Status (uuu_line_item_status) ▶ Issue Date (uuu_issue_date)

Summary Payment Application (SPA) SOV type BPs

The creation and update of the Line Items in the Summary Payment Application (SPA) SOV type BPs requires three fields in Unifier Provider. These fields are designed to identify and separate the SPA SOV type BPs in Unifier Provider from the existing SPA SOV type BPs in Unifier.

Note: Line Item update is not supported for Project Invoice (Payment Applications) Type of BP's through Gateway Integration. As a result, every Update from Gateway to Unifier will result in the creation of a new Line Item.

Depending on which Line Item is referenced, the Line Items coming from Gateway follow a certain structure as described in the examples below:

Base Commit Type BP Line Item

Example

```

<_bp_lineitems>  <!--Summary Line -- >
<ElementId>Summary1</ElementId>
<ParentDetailId></ParentDetailId>
<short_desc>desc 1</short_desc>
</_bp_lineitems>

<_bp_lineitems>  <!--Costed line -- >

```

```
<ElementId>costed line 1</ElementId>
<ParentDetailId>Summary1</ParentDetailId>
<short_desc>desc 1</short_desc>
</_bp_lineitems>
```

Note: The `parentdetailid` connects the BP Line Item to its parent Summary Line Item in the SOV.

Change Commit Type BP Line Item

Example

```
<_bp_lineitems> <!--Summary Line -- >
<ElementId>Summary1</ElementId>
<ParentDetailId></ParentDetailId>
<short_desc>desc 1</short_desc>
<uuu_sovlinum>1</uuu_sovlinum>
</_bp_lineitems>

<_bp_lineitems> <!--Costed line -- >
<ElementId>costed line 1</ElementId>
<ParentDetailId>Summary1</ParentDetailId>
<short_desc>desc 1</short_desc>
<uuu_sovlinum>1.1</uuu_sovlinum>
<bItemID>Code 1</bItemID>
</_bp_lineitems>
```

Notes:

- The `parentdetailid` connects the BP Line Item to its parent Summary Line Item in the SOV.
 - The Data Element `uuu_sovlinum` is an optional field. If the value is received by Unifier for the same field, then the system will try to update an existing row; otherwise, the update will create a new Line Item in the SOV (based on the settings of the SOV).
-

Invoice Type BP Line Item

Example

```
<_bp_lineitems> <!--Summary Line -- >
<ElementId>Summary1</ElementId>
<ParentDetailId></ParentDetailId>
<short_desc>desc 1</short_desc>
<bItemID></bItemID>
<_refnum>1</_refnum>
```

```
</_bp_lineitems>
```

```
<_bp_lineitems> <!--Costed line -- >
<ElementId>costed line 1</ElementId>
<ParentDetailId>Summary1</ParentDetailId>
<short_desc>desc 1</short_desc>
<bItemID>Code 1</bItemID>
<_refnum>1.1</_refnum>
</_bp_lineitems>
```

Notes:

- The `parentdetailid` connects the BP Line Item to its parent Summary Line Item in the SOV.
 - The `refnum` is for Unifier and is used when creating the structure within the SOV for the incoming Line Items and the Summary lines.
-

Unifier Provider BP Objects and Gateway Objects

To correspond to the Unifier Provider objects (explained in the preceding Data Dictionary section), Gateway will introduce new objects to support the various business processes.

You can use the mapping information in the following table to see how data is sent from Unifier to an Oracle application and flows from object to object (Unifier Provider > Gateway).

Item	Unifier Provider Object Name	Corresponding Gateway Object Name
1	Company Costs	BlanketPurchaseOrder
2	Company Costs Detail	BlanketPurchaseOrderDetail
3	Project Commits	BudgetChangeOrder BudgetItem Contract PurchaseOrder WorkRelease ChangeOrder POAmendment

Item	Unifier Provider Object Name	Corresponding Gateway Object Name
4	Project Commits Detail	BudgetChangeOrderDetail BudgetItemDetail ContractDetail PurchaseOrderDetail WorkReleaseDetail ChangeOrderDetail POAmendmentDetail
5	Project Invoices	Invoice PaymentApplication PaymentApplicationtoOwner
6	Project Invoices Detail	InvoiceDetail PaymentApplicationDetail PaymentApplicationtoOwnerDetail
7	Other Project Costs	Estimate BudgetApproval BudgetChange BudgetTransfer PotentialChangeOrder JournalEntry Payment PaymentFromOwner RiskAndIssue FundAppropriation
8	Other Project Costs Detail	EstimateDetail BudgetApprovalDetail BudgetChangeDetail BudgetTransferDetail PotentialChangeOrderDetail JournalEntryDetail PaymentDetail PaymentFromOwnerDetail RiskAndIssueDetail FundAppropriationDetail
9	Project Simple	ProjectInformation

Item	Unifier Provider Object Name	Corresponding Gateway Object Name
10	Company Simple	VendorEvaluation
11	Company Line Item	Vendor Timesheet
12	Company Line Item Detail	VendorDetail TimesheetDetail
13	Project Document	RequestforSubstitution
14	Project Document Detail	RequestforSubstitutionDetail

Business Processes Business Flow

When defining a Business Flow in Unifier Provider (Business Processes), the destination application parameters for Unifier Provider, BP object, enable you to define which BP needs to receive data by way of the Business Flow configuration. The attributes are specific to Unifier and eliminate the need for the source application to send the values for Unifier fields.

Notes:

- To avoid duplicating records, create separate Business Flows (for two BPs of the same type) when importing data.
- Do not use a single Business Flow in Gateway to import into two Company Costs type BPs. Instead, use different Business Flows for setting up the data flow.

If the source application sends value for either of the parameters mentioned below via data mapping and you define the parameter value in the business flow, then the value sent by way of mapping takes precedence.

The following parameters are required for successful project creation.

Object	Value	Description
Business Process Name	Text field If you enter more than one value, then the integration will fail.	Use this parameter to identify the Name of the business process that requires the data from the Oracle application. The value that you enter in this parameter is used by Unifier Provider to identify which BP requires data. Example Creating Data Mapping Template <ul style="list-style-type: none">▶ Unifier Provider object: Project Commits▶ Gateway object: Contracts▶ Oracle Application object: xyz

Object	Value	Description
Business Process Detail Tab Name	Text field If you enter more than one value, then the integration will fail.	Use this parameter to identify the Detail tab of the business process that requires the data from the Oracle application. The value that you enter in this parameter is used by Unifier Provider to identify which BP requires data. Example Creating Data Mapping Template <ul style="list-style-type: none">▶ Unifier Provider object: Project Commits Detail▶ Gateway object: Contracts Detail▶ Oracle Application object: xyz Note: The tab Name is also an attribute for all Line Item objects in Unifier Provider. If the Oracle Application sends value for tab name by way of mapping, then the mapped value will override the parameter value defined in Business Flow.

Object	Value	Description
Line Item Identifier	Text field Note: Oracle recommends that you use the Data Element name. If you enter more than one value, then the integration will fail.	This parameter is only used during an update of an existing Line Item (in Unifier). The value that you enter in the Data Element of this parameter is used by Unifier to identify which Line Item requires update. Note: Within this parameter text box, enter the name (not label) of the Data Element on the Detail tab that must be used as the identifier for Line Item update. Unifier Provider identifies the value entered in this text box as the DE name (not label).

Business Processes Synchronization

Synchronization in Unifier Provider (Business Processes) occurs when you set the parameters (Business Process Name, Status, and Detail Tab Name) as "Required" or "Optional" in the Business Flow definition.

Business Processes End-to-End Solution

The following explains the end-to-end solution for Unifier Provider (Business Processes). The configuration settings are for:

- ▶ Unifier
- ▶ Unifier Provider

To configure the creation of Business Processes in Unifier via Gateway:

Note: This is an optional step. You can skip deploying the objects from Unifier and add relevant fields in Gateway Data Mapping Templates directly, manually.

Go to **Company Workspace > Admin mode > Integrations > Gateway > Business Objects**.

Deploy the business process record that you want to create in Unifier, via Gateway Integration.

All Data Elements from the deployed business process record appear as attributes of Business Process object (Company Costs, Project Commits, Project Invoices, and so on) in the Provider Data Dictionary.

To configure the creation of Business Processes in Unifier Provider via Gateway:

You must:

- ▶ Create Data Mapping Templates
- ▶ Define Business Flow
- ▶ Define Synchronizations
- ▶ Synchronize

The following provides the details for each step:

Create Data Mapping Templates

Create Data Mapping Templates to map attributes of the BPs Upper Form data that needs to integrate with Gateway > Oracle application.

Notes:

- Ensure that you create one Data Mapping Template per BP.
 - If the BP that needs to integrate has Detail tab, then create additional Data Mapping Template, one template per Detail tab, to ensure that the map the Detail Form elements to Gateway > Oracle application.
-

After you deploy the BP from Unifier to Gateway, all the attributes of the Business Process object Unifier Provider (Company Costs, Project Commits, Project Invoices, and so on) will be available for you to add to the Data Mapping Template.

If you do not want to deploy from Unifier and want to create the Data Mapping Templates in Gateway directly, you must add each BP Data Element that needs to receive data from an Oracle application object in Gateway, manually (use the Add New Field in the Add Template window). After you add each BP Data Element in Gateway, you must deploy the BP from Unifier. Note the following conditions:

- ▶ If the manually added field is the same as one of the fields that you deployed from Unifier, there will be no impact on the existing field. This is similar as if you deployed the manually added field from Unifier.
- ▶ If the manually added field does not exist as a Data Element in Unifier, there will be no impact on the existing field. When the Oracle application sends value for this field to Unifier Provider, the value remains as is and it is not sent to Unifier.

Define Business Flow

Define Business Flow using the appropriate Data Mapping Template.

Create one Business Flow per BP Upper Form and one Business Flow per BP Detail tab.

Add the appropriate source (Source) application parameters to filter the BP records that you want to extract for the Oracle application and create in Unifier.

Add the values of the following relevant destination (Destination) application parameters in order for the BP Records/Line Items to be created in Unifier:

- ▶ Project ID
- ▶ Business Process Name
- ▶ Business Process Detail Tab Name

Configure the Business Flow to be used for creating (Create) and updating (Update) BP Records/Line Items.

Define Synchronizations

Define Synchronizations by using the appropriate Business Flow.

Define the appropriate parameter values for data exchange.

Define the schedule frequency so that the synchronization does not have to be run manually for the BP Records/Line Items creation or update.

Synchronize

When a synchronization is run, Unifier Provider sends data to Unifier to create or update BP Records/Line Items instance (as per Business Flow configuration).

Example

To create BP records of Base Commits type in Unifier:

- 1) Deploy the Base Commits BP to map to Unifier Provider object (Project Commits).
- 2) Log in to Gateway instance and create the following two Data Mapping Templates:
 - a. Using the Gateway object "Project Commits" to map the Base Commits BP "Upper Form" information to the Oracle application.
 - b. Using the Gateway object "Project Commits Detail" to map the Base Commits BP "Detail" tab information to the Oracle application.
- 3) Using the appropriate Gateway objects, create the following two Business Flows:
 - a. Using Gateway object "Purchase Orders" and selecting the corresponding Data Mapping Template that you created (sub-step "a" above).
 - b. Using Gateway object "Purchase Orders Detail" and selecting the corresponding Data Mapping Template that you created (sub-step "b" above).
- 4) Add the appropriate source (Source App Parameters) to filter records from the source application and set the destination application parameters (Destination App Parameters) to:
 - a. Business Process Name = Base Commit
 - b. Business Process Detail Tab = <detail tab name>
- 5) Create two synchronizations:
 - a. For Base Commit BP
 - b. For Base Commit Line Item
- 6) Define the schedule frequency so that the synchronization does not have to be run manually for the BP Records/Line Items creation or update.

Roles

You can create a Role in **Unifier** by using both Role and Resource data from an Oracle application. The Role object in **Unifier Provider** can be used to create and update Roles in Unifier. The following sections provide details about:

- ▶ Roles Data Dictionary
- ▶ Roles Business Flow
- ▶ Roles Business Flow (Destination App Parameters)

- ▶ Roles Synchronization
- ▶ Roles End-to-End Solution

Roles Data Dictionary

The Role object in Unifier Provider has the following default attributes which are the mandatory fields needed to create a Role object in Unifier:

Attribute Name	Description
Role Name	The name of the Role object.
Role Status	The Role status is either Active or Inactive. <ul style="list-style-type: none"> ▶ If the Oracle application Role Status values do not match the Unifier Role Status values, then use Data Mapping values. ▶ If the Oracle application does not send any values for this attribute, then Unifier creates a Role with a default status of "Active."
Role Currency	The currency for the Role. This attribute is mandatory/required for creating a Role object in Unifier. If the Oracle application does not send any values for this attribute, then Unifier creates a Role with a default currency of company base currency.

As a result of the Summary Sheet integration that creates Roles in Unifier (by pulling data from P6 Schedule Summary data, the Role ID (uuu_role_id) is a mandatory/required field for creating a Role object.

Creating a Role object in Unifier by pulling data from Gateway (Role/Resource object) does not require the Role ID (uuu_role_id) field for creating a Role object in Unifier.

Creating a Role object in Unifier via Gateway integration (by pulling data from Gateway Role/Resource object) requires the values of the following fields, mentioned in the table above:

- ▶ Role Name
- ▶ Role Status
- ▶ Role Currency

Roles Business Flow

Role, or Resource, mapping in Unifier (from an Oracle application) is achieved by way of the "Dynamic Object Mapping" field in Gateway.

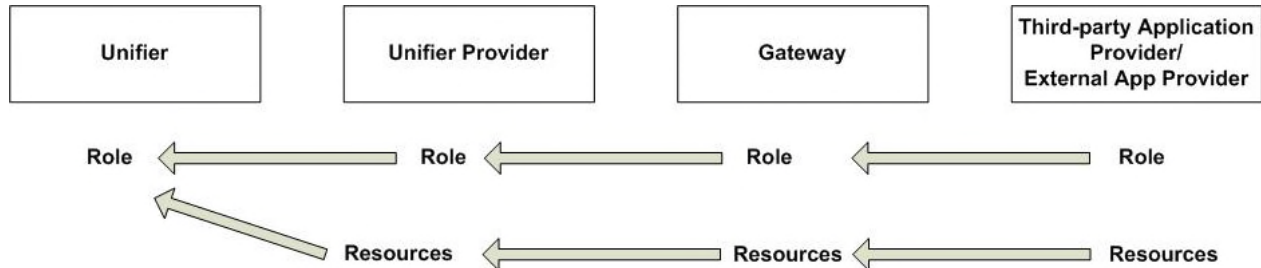
The "Create Template" window in Gateway enables you to select "Provider 1" as an Oracle application and "Provider 2" as Unifier.

In the section available for mapping objects, you can select "Resource" as the object in the Oracle application and "Role" as the object in Unifier (Provider 2).

You can choose criteria to bring the "Resource" data from the Oracle application by selecting the "Use Criteria Step" check box. You can then proceed to the next step and add the required mappings.

Roles Business Flow (Destination App Parameters)

You can create the Roles object in Unifier from both Resources and Roles objects in Unifier Provider. As a result, when defining a Business Flow, you need to identify the parameters (Destination App Parameters) within Unifier Provider. The following explains the Roles Business Flow:



Roles Synchronization

You can create synchronization using the appropriate Business Flow.

Roles End-to-End Solution

Follow these steps to create Roles objects in Unifier, via Gateway integration:

- 1) Deploy the Roles attribute form to Gateway.
 - ▶ This is an optional step. You can use this step to add additional Data Elements (required for Role creation or to receive values from the Oracle application) to the Roles attribute form.
 - ▶ You can create the Role object in Unifier from Role, or Resource, object in Unifier Provider by using the destination parameter (see the Roles Business Flow (Destination App Parameters) above); however, when a Roles object is deployed from Unifier, it only provides attributes for the Role object in Unifier Provider.
- 2) Create Data Mapping Template.
Unifier Provider "Role" object > Gateway "Role" object > Oracle Application "xyz" object
- 3) Create Business Flow.
Use the Gateway "Role" object and Data Mapping Template.
- 4) Create Synchronization.
Use the Business Flow.
- 5) Create Schedule.
Enable the scheduled creation/update of roles.

Resources

You can use the Resources object to identify whether a data from Unifier Provider can create a Role/Resource. When you map a Unifier "Resource" object to a Gateway "Resource" object, you can create/update both the Resources and Roles object in Unifier. The following sections provide details about:

- ▶ Resources Data Dictionary
- ▶ Resources Business Flow
- ▶ Resources Synchronization
- ▶ Resources End-to-End Solution

Resources Data Dictionary

The Resources object in Unifier Provider has the following default attributes which are the mandatory fields needed to create a Resources object in Unifier:

Attribute Name	Description
Resource Name	Unifier Resource Name.
Resource Status	The Resource status is either Active or Inactive. If the third-party application Role Status values do not match the Unifier Resource Status values, then use Data Mapping values. If the third-party application does not send any values for this attribute, then Unifier creates a Resource with a default status of "Active."
Resource Code	Resource Code.
Resource Capacity	Resource Capacity.
User First Name	First name of the user who is being added as a resource.
User Last Name	Last name of the user who is being added as a resource.
User E-mail ID	E-mail ID of the user who is being added as a resource.
Default Role Name	The role that the resource is allocated to.

Resources Business Flow

You can create the Business Flow by using the appropriate Resource-to-Resource Data Mapping Template.

Resources Synchronization

You can create the Synchronization by using the appropriate Business Flow.

Resources End-to-end Solution

Follow these steps to create Resources objects in Unifier, via Gateway integration:

- 1) Deploy the Resource attribute form to Gateway.
 - ▶ This is an optional step. You can use this step to add additional Data Elements to the Resources attribute form that are required for:
Resource, or Role, creation.
Receiving value from the third-party application.

When a Resource object is deployed from Unifier, it only provides attributes for the Resource object in Unifier Provider.

- 2) Create Data Mapping Template.
Unifier Provider "Resource" object > Gateway "Resource" object > Third-party Application "xyz" object
- 3) Create Business Flow.
Use the Gateway "Resource" object and Data Mapping Template.
- 4) Create Synchronization.
Use the Business Flow.
- 5) Create Schedule.
Enable the scheduled creation/update of resources.

CBS Codes

You can create and update the CBS Codes in Unifier Cost Sheet via Gateway integration with any Oracle application.

Unifier and Oracle Primavera Cloud

When Unifier and Oracle Primavera Cloud are integrated, you can configure Unifier to connect a single Unifier project to a single Oracle Primavera Cloud project for cash flow.

Note: Oracle recommends that you inspect what you expect from connecting Unifier projects to Oracle Primavera Cloud projects because you may experience unexpected data and results.

Oracle Primavera Cloud Integration

To access the **Primavera Cloud Integration** page for cash flow integration:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Integrations > Primavera Cloud**.
- 3) After you review the following information, continue to the **Connect for Primavera Cloud Integration** topic for additional instructions.

Recommended Integration Settings for Unifier and Oracle Primavera Cloud

To generate an access token for REST APIs, configure the OAuth client ID in Oracle Primavera Cloud. If you need additional support, contact your System Administrator.

You must have:

- ▶ Unifier integration permissions to establish a connection with Oracle Primavera Cloud.
- ▶ Valid credentials to access Oracle Primavera Cloud.

Connecting Unifier and Oracle Primavera Cloud

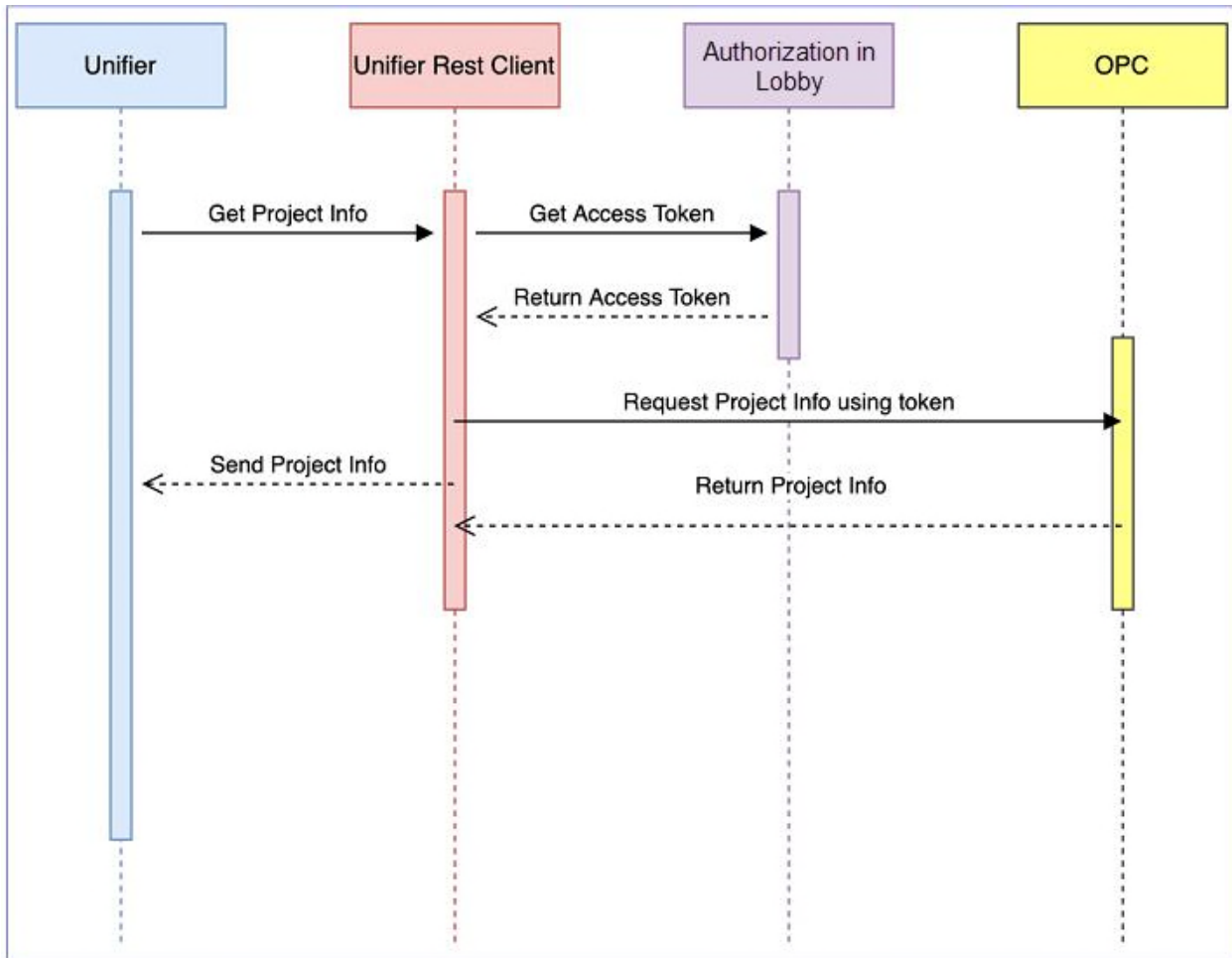
Data can be shared between Unifier and Oracle Primavera Cloud. Unifier can access the Oracle Primavera Cloud Application Programming Interface (API) through an access token generated from the Lobby.

To generate the required access token, your System Administrator (on-premises installations) or Company Administrator (cloud service) must enter the URL for the Lobby in the `custom.properties` file (Unifier Configurator Settings > **Advanced** tab). The file must contain the following entry:

```
skire.lobby.lobbyuri = <lobby URL for your environment>
```

If the server name and the host and scope name are different, the Oracle Primavera Cloud connection will not be established. As explained in the **Connect for Primavera Cloud Integration** topic, Unifier uses the Lobby identity application token request by sending the URL, username, and password values to get the access token and refresh token.

The following diagram shows the integration elements:



Sending Cash Flow values from Unifier to Oracle Primavera Cloud

To send cash flow values from Unifier to Oracle Primavera Cloud as needed, you must ensure that Oracle Primavera Cloud is up and running and that you receive the access token.

Note: Unifier connects to Oracle Primavera Cloud through an Application Programming Interface (API)—not to its server. Therefore, the system cannot check the availability of the Oracle Primavera Cloud application nor can it notify you if Oracle Primavera Cloud application is not available.

Removing a connection to an Oracle Primavera Cloud project

If you remove the link between Unifier and an Oracle Primavera Cloud project, you must also manually remove (unlink) the Project ID for the Oracle Primavera Cloud project from the **Primavera Cloud Integration** page.

Connect for Oracle Primavera Cloud Integration

Prerequisites: Refer to the **Recommended Integration Settings for Unifier and Oracle Primavera Cloud** section in the *Unifier and Oracle Primavera Cloud* topic.

To generate a Lobby access token:

- 1) In the **Connect** tab, enter the following:
 - ▶ **Primavera Cloud URL:** Enter a valid Oracle Primavera Cloud URL to send and receive data between Unifier and Oracle Primavera Cloud. The URL must be identical to the one used for the host name of the Oracle Primavera Cloud.
 - ▶ **Username:** Enter your email address.
 - ▶ **Password:** Enter your Oracle Primavera Cloud password.
- 2) To connect Unifier to the Oracle Primavera Cloud, click **Save & Generate Access Token**.

Notes:

- The refresh token is generated before the access token expires.
- If the server name and the host and scope name are different, the Oracle Primavera Cloud connection will not be established.

The system will use the access token (which is generated based on the user name and password) to authenticate the Oracle Primavera Cloud public API to send (push) and receive (pull) cash flow data for selected projects. If the values of the URL or credentials have been entered correctly, you will see this message: "The access token has been generated successfully." Otherwise, you will see this message: "The access token cannot be generated. Verify the credentials entered."

Unifier and Oracle Integration

When Unifier and Oracle Integration are integrated, you can use Oracle Integration recipes for the following purposes:

- ▶ Workflow Business Processes
- ▶ Update System Activity Sheet from Oracle Primavera Cloud or
- ▶ Master Rate Sheet from Oracle Primavera Cloud

Initial Oracle Integration Setup

To configure Oracle Integration for Unifier, complete the initial setup outlined below.

Prerequisites

Ensure the following:

- ▶ Oracle Integration is provisioned.

- ▶ You have the relevant permissions to administer and configure Oracle Integration in Unifier. Permissions are controlled in **User Administration (Admin mode) > Access Control > Administration Mode Access > Oracle Integration Cloud**.
- ▶ Unifier is added as a trusted application using client credentials grant type in Oracle Integration. You will need the **Client ID**, **Client Secret**, and **App Scope** information generated for Unifier in the procedure outlined below. Contact Oracle Support for this information.
- ▶ You have the IDCS URL hosting the Oracle Integration instance. Contact Oracle Support for this information.
- ▶ You have the Oracle Integration URL to connect with Unifier.

Initial Setup Procedure

To establish a connection with Oracle Integration:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) Set up the connection for Oracle Integration:
 - a. In the left Navigator, select **Integrations > Oracle Integration Cloud**.
 - b. In the **Connect** tab:
 1. Enter the following information the first time you connect with Oracle Integration:
 - **OIC URL:** Enter a valid Oracle Integration URL (usually ending with ocp.oraclecloud.com) to send and receive data between Unifier and Oracle Integration. This might be an instance embedded with Unifier or you might have your own instance of Oracle Integration.
 - **IDCS URL:** Enter a valid Oracle Identity Cloud Service (IDCS) URL hosting Oracle Integration.
 - **Client ID:** Enter the client ID generated for adding Unifier as a trusted application in Oracle Integration.
 - **Client Secret:** Enter the client secret generated for adding Unifier as a trusted application in Oracle Integration.
 - **App Scope:** Enter the API Scope generated for adding Unifier as a trusted application in Oracle Integration.
 1. Click **Save & Generate Access Token** to generate a token and sets **Enable Integration** to Yes on connecting successfully.
Otherwise, recheck your Oracle Integration configuration details.
- c. In the **Recipes** tab, copy the recipe endpoints that you plan to use from Oracle Integration to the following fields. Recipes are currently supported for:
 - **System Activity Sheet**
 - **Master Rate Sheet**
 - **Workflow Business Processes:** This is an *integration* endpoint that you can create in Oracle Integration and then use it workflow BPs in Unifier.

Note: For subsequent use, recheck the above field information and complete Step 2 to connect with Oracle Integration as-needed, on demand.

When the Recipe is triggered as a part of a BP workflow event or **Get Data** of System Activity Sheet, the Job status can be viewed in the **OIC Integration Log**. However, the progress of the Recipe execution is available in the **OIC Integration Log** only if the Recipe has a call to invoke Unifier API with a status and corresponding error message. For more details, refer to **Callback API to Update Oracle integration Recipe Instance** in the Unifier *Integration Interface Guide*.

Tip: To disable integration for a specific recipe, keeping all others enabled, delete the endpoint URL for that recipe.

- 3) Add users or groups with appropriate permissions to access and use recipes from Oracle Integration:
 - a. In the left Navigator, select **User Administration > Access Control**.
 - b. In the right pane, select **Administration Mode Access > Integrations > Oracle Integration Cloud**.
 - c. In the **Module Permission Settings** window, click **Add**.
 1. In the **Select Users/Groups** pane, click **Add Users/Groups** to add users or groups, and click **OK**.
 2. In the **Permission Settings** pane, select and assign the following permissions to users or groups and click **OK**:
 - Configure: Select this option if you want to allow users or groups configure the Oracle Integration connection.
 - View: Select this option if you want users or groups to only view the Oracle Integration connection.
 - d. Click **Apply**.

Enabling Oracle Integration Connection

After initial setup, you can connect with Oracle Integration as-needed, on demand.

To enable the Oracle Integration connection:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Integrations > Oracle Integration Cloud**.
- 3) In the **Recipes** tab, specify or recheck the recipe endpoints from Oracle Integration.
- 4) In the **Connect** tab:
 - a. Enter or recheck the connection parameters.
 - b. Click **Save and Generate Access Token**.
- 5) Proceed to work on your business processes.

Disabling Oracle Integration Connection

To disable the Oracle Integration connection:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Integrations > Oracle Integration Cloud**.
- 3) On the **Connect** tab, select **No** for the **Enable Integration** option.

Tip: To disable integration for a specific recipe, keeping all others enabled, delete the endpoint URL for that recipe.

Integrating a Project/Shell with Oracle Primavera Cloud

You can use the Primavera Cloud Integration tab in the Details window to add or link a Unifier project to an Oracle Primavera Cloud project.

Note: You can use a Gateway Integration or a Primavera Cloud Integration with Unifier; you cannot use both. While one integration remains active, the other is unavailable.

- 1) Open the project/shell and switch to **User** mode.
- 2) In the left Navigator, click the project/shell name (**Home** icon).
- 3) In the upper-right corner, click **My Dashboard** and select **Details** to open the **Details** form.
- 4) Select the **Primavera Cloud Integration** tab.
- 5) Click **Add**, and select **Primavera Cloud Cash Flow** or **Primavera Cloud Schedule**.
- 6) In the empty row that is added, complete the following fields:
 - ▶ **Project ID:** Enter the Oracle Primavera Cloud project ID. The ID must be unique to this shell and to Unifier. The ID cannot include the following characters: / \ : * ? " < > | ' =
 - ▶ **Project Name:** This field is optional.
 - ▶ **Primavera Cloud Workspace ID:** Enter the Oracle Primavera Cloud Workspace ID.The **Integration Type** field is completed by the system, based on the option you selected from the **Add** list.
- 7) When you are done, click **Save**.

Integrating a System Activity Sheet or Master Rate Sheet through Oracle Integration

After the connection between Unifier and Oracle Integration is established, you can use the **OPC to Unifier Integration** recipes to update the System Activity Sheet or the Master Rate Sheet (or both). The current recipes include **Oracle OPC Unifier Activity Sync**, **Oracle OPC Unifier Resources Roles Sync**, and **Oracle Update OPC Activity Spreads to Unifier**. You can initiate an update from within Unifier or in Oracle Integration.

When you use a recipe to update the System Activity Sheet for a project, it updates the sheet with the cost data, the Assignments (resources and roles), and the Activity Spread. Additionally, you can use the **Primavera Cloud Schedule** option to update multiple schedules. If you attempt to integrate an Oracle Primavera Cloud project that is already integrated with the same project or a different project in Unifier, the system notifies you that the integration cannot be added.

When you use a recipe to update the Master Rate Sheet, it updates the sheet with all the workspaces, resources, and roles from Oracle Primavera Cloud.

Note: You can use a Gateway Integration or a Primavera Cloud Integration with Unifier; you cannot use both. While one integration remains active, the other is unavailable.

To integrate a System Activity Sheet or Master Rate Sheet:

- 1) Go to the **Company Workspace** tab and switch to **Admin** mode.
- 2) In the left Navigator, click **Integrations > Oracle Integration Cloud**.
- 3) In the **Recipes** tab, copy the applicable information from the **POST** field in the corresponding Oracle Integration recipe to the **System Activity Sheet** and **Master Rate Sheet** fields.
- 4) When you are done, click **Save**.

To update the System Activity Sheet from within Unifier:

- 1) Open the applicable project/shell and switch to **User** mode.
- 2) In the left Navigator, click the project/shell name (**Home** icon).
- 3) In the upper-right corner, click **My Dashboard** and select **Details** to open the **Details** form.
- 4) Select the **Primavera Cloud Integration** tab.
- 5) Click **Add**, and select **Primavera Cloud Schedule**.
- 6) In the empty row that is added, complete the following fields:
 - ▶ **Project ID:** Enter the Oracle Primavera Cloud project ID. The ID must be unique to this shell and to Unifier. The ID cannot include the following characters: / \ : * ? " < > | ' =
 - ▶ **Project Name:** This field is optional.
 - ▶ **Primavera Cloud Workspace ID:** Enter the Oracle Primavera Cloud Workspace ID.The **Integration Type** field is completed by the system, based on the option you selected from the **Add** list.
- 7) To add additional projects, click **Add** again, select **Primavera Cloud Schedule**, and complete the new row.
- 8) When you are done, click **Save**.
- 9) In the left Navigator, click **Activity Manager > Activity Sheet**.
- 10) In the toolbar of the Activity Sheets log, click **Get Data**.
- 11) In the **Get Data** dialog box, select the **All Projects** check box, and then clear any projects from the text box that you do not want updated.
- 12) In the **Type** section, select **Baseline**.
- 13) If you want to retain unreferenced data in the System Activity Sheet, clear the **Remove Unreferenced Data** check box in the **Advanced Options** section.
- 14) When you are done, click **OK**.

15) To view the status of the job, select the **History** tab in the right pane.

You can click Refresh to update the information until the Status displays COMPLETED. If the Status is FAILED, select the line to view more information about the error that occurred.

To update the Master Rate Sheet from within Unifier:

1) Go to the **Company Workspace** tab and switch to **User** mode.

2) In the left Navigator, click **Master Rate Sheet**.

3) In the toolbar of the Master Rate Sheet log, click **Get Data** .

4) In the **Get Data** dialog box, select **OIC**, and click **OK**.

5) In the **Confirmation** message, click **Yes** to continue.

6) To view the status of the job, select the **History** tab in the right pane.

You can click Refresh to update the information until the Status displays COMPLETED. If the Status is FAILED, select the line to view more information about the error that occurred.