Oracle
Primavera Unifier Essentials
Business Processes Reference Guide

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Oracle Primavera Unifier Essentials Business Processes Reference Guide

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Contents

Introduction

This document provides additional details about Unifier Essentials business processes.

> **Note**: The instructions and information presented in the documentation are based on an out-of-the-box setup and before being customized by the user.

Business Processes

A business process (BP) is a set of coordinated tasks and activities that lead to the accomplishment of a specific business goal. For example, creating, routing, and approving a purchase order is a business process. Most BPs include a workflow that specifies how the BP should proceed, from start to finish. Information is entered and stored in the system using electronic BP forms.

Each time you complete a BP form in the system, a BP record is created. These forms might be routed to project/shell team members or other users via workflows. Non-workflow BPs are also stored as records. All BP records are stored in logs, which are accessible in the Navigator. Think of these logs as filing cabinets, with each drawer storing a different type of BP.

As part of a workflow, you will use these forms to collaborate as a team to complete a BP. The information that you enter in the fields on BP forms is used throughout the system. By entering information such as the "who, what, where, and when" for each BP, you can run a project. You can maintain action items, manage document archiving, track workflow tasks and milestones, communicate and collaborate with project team members, and generate project reports.

BPs can be associated with a specific Project or Shell (Project/Shell-level BP), or they can be applicable for the entire Company (Company-level BP). The Administrator determines which forms are to be used and how the workflows operate.

In This Section

Workflow and Non-workflow BPs

A workflow specifies how a business process (BP) should proceed, which determines how records are routed and governs the behavior of each step in the process. Most BPs include at least one workflow. If a BP exists only to store data, it is called a non-workflow BP. An example of a non-workflow BP is a form that records a Warranty or Estimate. The log for a non-workflow BP includes an **Edit Record** column that indicates whether the record is in an editable state by displaying an **Edit Record** icon ⊡. A user can use the **Create New View** option and the **Show Edit Records** parameter to filter the log to display only those records that are in an editable state. For more information on setting up filtering, see *Business Processes in Company Logs and Navigation Nodes*.

Business Process Step Editor

The **Step Editor** designation allows someone other than the assignee to edit the business process record. Step Editors can be added to the following workflow, or non-workflow, business process types:

- Line Item
- Cost
- Document
- Simple
- RFB

If you are designated as a **Step Editor** on a business process, it means that you are a user, or member of a group, who can open and edit a business process record without being granted explicit record-level permission.

If you are a **Step Editor** on a business process, you can open and edit any record that you can see listed in the business processes log, per your view access permission (View User Records, View Company Records, or View All Records).

> **Note:** You must have at least one of the above permissions to be able to view the record in the log to access it to edit.

The Step Editors *cannot* edit a Workflow Business Process record until the task assignee accepts the task and saves the draft.

Edits performed by Step Editors are not audited.

Edits performed on the end step of a Workflow Business Process affect the record directly because no draft exists.

If there are multiple Step Editors, the last **Step Editor**, who saves changes/edits, overwrites all other changes/edits.

If multiple Step Editors and the assignee are editing the business process record at the same time, the data saved by the last edit overwrites all previous edits.

Example

If User 1 changes an amount field from 15,000 to 23,000 and saves the change, and User 2 changes an address field, but does not change the amount field on her copy of the form, when User 2 saves her change, the system will commit User 2's edits and overwrite User 1's changes. In this scenario, the amount field value will be 15,000.

For information about responding to your tasks, see *Working with Tasks* (on page 158) and *Completing Tasks via Email* (on page 170).

Business Process Dates and Calendars

The system supports multiple calendars, enabling the Administrator to create a library of calendars that can be selected for use at the Company or project/shell levels. The multiple calendars let you have calendars to support varying work schedules (depending on locality) and to account for holidays and other non-working days. For example, some countries in the Middle East have weekends that are other than Saturday and Sunday.

Calendars affect the calculation of both business process workflow due dates and task due dates, and formula calculations. When the calendar changes for the Company, or for the project/shell, any subsequent computation of dates will use the new or changed calendar. Dates are not affected for records that are in process. The Date Picker and the Date Only Picker will show the changed calendar.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

▶ When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

Business Process Forms

The forms are consistent throughout the system, with a similar look and feel. When you send a workflow business process form to the next step, the assignee receives a task.

When you first open a task, it appears in "view" mode. Depending on your BP setup, the "view" version of this form might let you:

▶ Accept the task
▶ Decline the task
▶ Print the form
▶ Terminate the record
▶ Send Mailbox
▶ Transfer ownership of the record

- Add an assignee to the current step
- Copy users to the current step
- Audit the progress of the record
- Add a comment, if you have permission

If you accept the task, the form becomes editable. Depending on your BP setup, the editable, or "action," version of this form might let you:

- Undo task acceptance, which allows someone else to accept the task.
- Decline the task, which takes you out of the list of assignees.
- Select the step's next action.
- Add or edit form content
- Save a draft of the record
- Terminate the record
- Transfer ownership of the record
- Display the view form of the business process
- Audit the progress of the record
- Add attachments, line items, and so on
- Send the form to the next step

The form appears similar to a paper form—you complete the form by typing information directly into the form fields or choosing options through drop-down lists, pickers, or checkboxes.

> **Note:** The section labels are determined by the design and may vary.
> The basic form functionality remains the same.

If a data element in a BP form contains a tooltip (associated in the design), at runtime a question mark (?) symbol appears next to that field. To view the tooltip, use your mouse to hover over the corresponding question mark.

After you are done working on a business process form, click **Send** to route the workflow business process to the specified recipients. You can click **Save** to save a draft of the form, so you can work on it again.

Pickers

Pickers appear as selection lists on business processes and other components. These pickers let the user choose elements such as dates, master service agreements, other users, companies, line items, funds, or currencies.

Some pickers are designed to display a structure to guide you to the correct location where a record resides, such as a specific project or a specific business process. By using this additional structure, you can navigate more easily through your business process records to the one you want.

The system uses the following pickers:

Picker	Description
BP	For linking one business process to

Picker	Description
	another (for example, to tie invoice business processes to purchase order business processes). Often, the field will be named something like Reference BP. Some fields might be automatically populated when the referenced business process is selected. **Note**: The business process list that you see will depend on your permissions. Users who do not have permission to view a BP that may be part of the business process picker list will not see that business process on the list.
CBS	On Cost-type business processes, project/shell cost sheets, and on schedule activity forms, for selecting CBS codes.
Commit Line Item	Used when you create a new line item for a change commit business process. This picker displays a composite view of base commit and change commits. The data elements on the picker are reference, description, and CBS code.
Currency	For selecting a currency on a cost-type business process. If no currency is chosen by the creator of the record, the default is the project or shell currency. If there is not a Currency picker on the form, the currency defaults to the project or shell currency. **Note:** If you select a different currency for transactions, the system correctly uses the exchange rates to calculate subsequent information. However, when you view the main form for the approved BP record, the system currently displays all the data elements (DEs) that are of the Currency Amount data definition (DD) for Project or Base currency values. Oracle recommends that you add DEs for the Decimal Amount DD for Project or Base currency values. If you view the Project Currency by selecting it from View

Picker	Description
	Currency on the Line Item tab, the correct symbol is shown.
Date	Displays an interactive calendar from which the date can be chosen. For some business processes, dates in Date pickers can be set to automatically default. For example, this defaulting can be useful in the case of entering a delivery date and having the date default to today's date rather than having to use the Date picker to get a date.
Date Only	Displays an interactive calendar from which the date can be chosen. This picker lets you select a date from the picker or enter a date into the field. This picker lets you choose the date only, with no associated time or time zone. For example, you would not need time and time zone for a date like an equipment purchase date. Also, for some business processes, dates in Date Only pickers can be set to automatically populate the server date. For example, this defaulting can be useful in the case of completing an equipment purchase and having the date default to today's date rather than have to use the Date picker to get a date.
Fund	On Cost business processes, for selecting which fund (from the company funding sheet) the business process will allocate funds to or consume funds from.
Location	For selecting a shell.

Picker	Description
Project	For selecting a project. This picker might auto-populate project data elements on other BP fields. The picker is designed to show Active, Inactive, View-Only, and On-Hold projects.
Project Template	For selecting a project template when creating a project with the Project Request BP.
Shell	For selecting a company-sponsored shell to auto-populate shell data elements on other business process fields. The picker is designed to show Active, Inactive, View-Only, and On-Hold shells.
Shell Template	For selecting a template to use when creating a shell. The picker will show you a list of active templates for the shell type.
User/Group	For selecting project/shell users (members of a project team) or company users (all users defined within a company). See more information under **User Picker and Group Picker** (on page 21).
Work Package	On Cost-type business processes, for selecting a work package for a Cost Sheet. This picker is populated with the work packages that have been created.

The following lists all the pickers:

▶ Bid Picker
▶ BP Picker
▶ BP Line Item Picker
▶ BP Line Item Data Picker
▶ Commit Line Item Picker
▶ Company Picker
▶ Cost Attribute Picker
▶ Cost Code Picker
▶ Currency Picker

- ▶ Data Picker
- ▶ Date Picker
- ▶ Date Only Picker
- ▶ Fund Picker
- ▶ Group Name Picker
- ▶ Hyperlink Picker
- ▶ Image Picker
- ▶ Location Picker
- ▶ P6 Activity Picker
- ▶ Project Picker
- ▶ Project Template Picker
- ▶ Shell Picker
- ▶ Shell Code Picker
- ▶ Shell Template Picker
- ▶ Shell Data Picker
- ▶ Single User Picker
- ▶ SOV Picker
- ▶ SYS Date Picker
- ▶ User Picker
- ▶ User Data Picker
- ▶ WBS Code Picker
- ▶ WBS Picker
- ▶ Work Package Picker

For the following details, for each picker, refer to the *Unifier Essentials Data Reference Guide*:

- ▶ Data Element Name
- ▶ Label that will Appear on the Form
- ▶ Available for Forms on Mobile Device
- ▶ What it Does

At run-time, when a record is selected for a BP Data picker, all the line items for referenced BP Line Item Data Picker that meet the query conditions defined on the Line Item Data Picker are displayed.

In the Action form, a line item data picker can be either editable or read-only.

- ▶ Editable: A line item from a line item data picker.
- ▶ Read-only: A disabled text box without select icon.

In the View form, a Line Item Data Picker will be read-only.

- ▶ Read-Only: A disabled text box without select icon.

If picker is read-only, the display element of the selected line item in previous step is displayed. If no line item is picked, or the display element does not have value, picker shows empty text box and is disabled.

Click the picker icon for BP Line Item Data Picker to view the detail forms of the source BP displayed as different line items.

> **Note:** The tabs that are visible in the picker configuration are shown.

All the source line items within each tab that satisfy the query conditions are displayed.

The Toolbar options are:

▶ Lineitem: This is a drop down that shows tabs from source BP. Tabs that are hidden in picker configuration will not be shown.
▶ Find: All the BP search elements that were added in **Find** tab are shown. You can further filter the line items based on the search parameters.
▶ Find on Page: Same behavior as in other logs in the system.

Line item log for each tab is displayed as designed.

CBS Picker

The CBS Picker has an auto-completion feature. If you know the code, begin typing in the CBS Code field, and the picker will show the top 10 matches. If you continue to type, the picker will narrow the list as it matches more of the characters you type.

In this picker, you can use the following keyboard shortcuts:

▶ Use the Up and Down arrows to move through the list
▶ Press the Enter key on a highlighted CBS code to confirm a selection
▶ Press the Backspace key to delete a selection
▶ Use the Tab key to make a selection and move to the next field on the form

In the CBS Picker log, you can click **Find on Page** to do a text-based search for each column. You can click **Find** to filter CBS codes. When you click **Find**, any additional elements become present and a **Show CBS Hierarchy** checkbox appears. To view the entire CBS hierarchy of filtered CBS codes, select the **Show CBS Hierarchy** checkbox to view summary level codes and child level codes below the CBS code.

Cost-type BP Form and Picker Values

The picker field is used for selecting CBS codes, and the picker can be found on:

▶ Cost-type BPs (Note that query conditions created by your administrator are not added to Cost-type BPs by default.)
▶ Project/shell
▶ Shell cost sheets
▶ Schedule activity forms

When you create or update a BP record:

▸ The picker field lets you select only relevant codes or data.

▸ You can search for a code in picker, in the **Line Item Details** tab of your BP record **Line Items** tab. This is so you can see a list of codes from the filtered list that matches your search criteria.

▸ By defining the query condition on pickers in BP Configuration, you can narrow down the list of codes in picker, in the **Line Item Details** tab of your BP record Line Items tab. This is so you can see a list of codes from the filtered list that matches your defined query conditions.

▸ The picker has an auto-completion feature. If you know the code, begin typing in the picker DE field, and the picker will show the top 10 matches. If you continue to type, the picker will narrow the list as it matches more of the characters you type.

You can also auto-create a BP record with the picker value that matches a previously defined query condition, at the source BP. This so you can automatically create records or line items by ignoring the filter conditions that are set for the destination BP. The query condition is defined in the BP Configuration.

For flat-structured cost sheet, the filters are applied to all nodes, and for the tree-structured cost sheet the filters are applied to the leaf nodes, and the summaries are displayed based on the rollups.

> **Note**: Auto-population and Reverse Auto-population processes will work in same way .

When you create a new BP record by way of a CSV or Excel file import, or when you add a new line item through the line-item CSV or Excel file import, the system will use the defined query conditions in the picker. For BP record level import, if the CBS code does not match the query conditions, then the validation happens during the record creation process, and the system sends an email to the user that it has failed. For line item level import, the system displays a message and shows the error in the CSV.

You cannot create a BP record if the picker data element (DE) is a required field, and the data that you have entered does not match the available defined query conditions in the picker.

When you create a new BP record with line item by way of REST V1 and V2 web services, or when you add a new line item through the REST V1 and V2 web services, the system will use the defined query conditions in the picker. If the CBS code provided in the RESTful web services does not match the query conditions, then the record or line item creation will fail with an error.

User Picker and Group Picker

Most pickers operate in the same way. However, the User/Group Picker has several features that other pickers do not.

> **Note:** The Find window and sort order might vary depending on the optional design created.

The list of users and groups in your company may be exceptionally long. To make reading the picker list easier, you can filter the names on the list by project/shell and by user or group, or both. To filter the user/group list:

▶ To filter the list by project/shell, use the **List Names From** field and choose the name of the project/shell. (This filter option is generally available only to administrators; for example, when an administrator is adding project/shell members.)

▶ To filter the list by user or group, use the **Show By** field to display users, groups, or both users and groups on the list.

To select a user or group:

1) To select a user or group for an action, select the name. To select multiple names, hold down the **Ctrl** key while you click the names.

2) To add the names for the action, click **Add**. The names are displayed at the bottom of the window.

3) Click **OK**.

To remove a user or group:

If you change your mind, you can remove a name from the action as follows:

1) At the bottom of the window, select the user or group you want to remove. To select multiple names, hold down the **Ctrl** key while you click the names.

2) Click **Remove**. The names are removed from the bottom of the window.

3) Click **OK**.

To view a user's profile:

Select the name and click the **View Profile** button. The View User Profile window is displayed, showing work information for the user, including their Title, E-Mail, Phone Number, and Company Address. Use the drop-down list to view the user's information for either the company or shell level.

To see a list of group members:

Select the name of the group and click the **Members** button. The Member List window is displayed. To remove a user from the list, deselect the checkbox beside their name.

Shell Data Picker

When you open the shell properties in User mode and use the shell data picker hyperlink:

▸ The shell data picker can be editable, read-only, or read-only with a hyperlink on the Action form.

▸ The shell data picker can be read-only or read-only with a hyperlink (in read-only mode) on the View form.

When you click the shell data picker hyperlink (in read-only mode) on the View form:

  ▸ If you are a member of the shell and have permission to the View form, you can see the View form in the shell details in view-only mode.

  ▸ If you are not a member of the shell, you cannot see the View form.

  ▸ If you are a member of the shell and have "Modify Properties" permission (in Access Control) for the shell, you can view the Action form of the shell in view-only mode.

  ▸ If the shell administrator accesses the shell data picker hyperlink, the administrator will see the Action form of the shell in view-only mode.

> **Note**: When you select the shell data picker, only the General tab information of the shell properties is seen.

Completing a BP Record Form

For detailed instructions on creating a BP record, see *Creating a Business Process (BP) Record*.

To complete a Business Process (BP) form:

1) Complete the Main form. Fields marked with a red asterisk (*) require an entry.
2) Add line items, if applicable.
   ▸ If this is a cost or line item-type BP, add line items as necessary.
   ▸ If this is a Document-type BP, attach any documents to the form.
3) Add additional information, if applicable.
   ▸ Comments
   ▸ Attachments to Comments
4) After you have completed the form, do one of the following:
   ▸ *If this is a non-workflow BP:*

- Click **Save** to save your changes. Saving the form the first time will save a new BP record and subsequent saves just save changes incorporated in the BP record.
- Click **Submit** to finalize the record. The record will be displayed in view-only mode.

  After the non-workflow BP is 'submitted,' it can impact any of the following:

  - Roll up to the Sheets and Managers
  - Cashflow auto commits
  - Autocreation
  - Publish record info to DMS

When you create a record, the list of values for Status only displays those that are marked Active. When you update a record for which the current Status has been marked Inactive, you must select a different Status. The system uses statuses to track the state of a business process record and any line items it may contain. For example, a Pending status generally means people are still working with the record, while a Closed status suggests the record is completed. Records in Closed status are typically marked as Terminal, meaning the record has reached a point where no further input is either required or desired. You can still access a non-workflow record in a terminal status if the record is in Edit mode. However, if you click **Submit** when the record is in a terminal status, the record becomes permanently read-only and un-editable.

> **Note**: For non-workflow business processes, the system evaluates the specified upper form validations only when the BP record is submitted by clicking the **Submit** option.

▶ *If this is a workflow BP:*

a. When you have completed the form, click **Send**. The Workflow Action Details form is displayed.

b. From the **Workflow Actions** drop-down list, select a workflow action. If there is only one possible action name, then this step is pre-populated.

c. The **Send For** field displays the Step name. The step name is populated based on the selected Action name and is a read-only field.

d. The **To** field displays the possible list of assignees for the workflow step. Use the User/Group picker to select an assignee, if not already preassigned.

> **Note:** If the Assignment Policy is set to Preassigned, the **Additional Task assignees from record and tabs** line is read-only.

e. The **CC** field displays only if the workflow step allows CC users. Use the User/Group picker to select users who will receive notification on the BP record form. This field might be pre-populated based on the step setup.

> **Note:** If the Assignment Policy is set to Preassigned, the **Additional CC users from record and tabs** line is read-only.

f. If the selected step has a due date, the details of the due date are displayed. If not already preassigned, you can choose from one of the following options:

Set all task due dates as: Lets you set the same due date for all assignees.

Set individual task due dates: Lets you assign different due dates for each assignee one at a time.

Click the **Calendar** icon corresponding to the option you chose. The Date picker opens. Select the month and year, and then click the date you want to select.

g. Click **Send**.

Editing Values on a BP Record Form

The following table describes the values:

Notes:

- Click **X** to clear out values. You can also clear all field values by selecting ☰ **Menu**, and then selecting **Reload**.
- Use the **Search** and **Find on Page** options displayed on pickers to find specific items. Use the pagination controls if multiple records are present.

Form Values	Description
Text fields	Text fields have an input box.
Data Pickers	You can click **Picker** ☑≡ to launch the picker screen and either select a record and then click **Select** or double-click the record.
BP Pickers	You can click **Picker** ☑≡ to launch the picker screen and either select a record and then click **Select** or double-click the record.
Line Item Picker	Use the Line Item picker to select a line item. You can click **Picker** ☑≡ to launch the picker screen and either select a line item and then click **Select** or double-click the line item.
↻ Shell Picker	For selecting a company-sponsored shell to auto-populate shell data elements on other business process fields. The picker is designed to show Active, Inactive,

Form Values	Description
	View-Only, and On-Hold shells. You can use the **Type** drop-down menu to view by Shell types.
Image Picker	For uploading images.
Hyperlink Picker	For adding and updating hyperlinks.
CBS Picker	On Cost-type business processes, project/shell cost sheets, and on schedule activity forms, for selecting CBS codes.
Work Package Picker	On Cost-type business processes, for selecting a work package for a Cost Sheet. This picker is populated with the work packages that have been created.
Transaction Currency Picker	The Transaction Currency picker displays the Project Currencies. Columns seen here are Currency Name and Currency Symbol. **Note:** If you select a different currency for transactions, the system correctly uses the exchange rates to calculate subsequent information. However, when you view the main form for the approved BP record, the system currently displays the Project Currency Amount field using the applicable symbol for Transaction Currency instead of the symbol for the Project Currency. For example, if the Base Currency for the project is US Dollars ($) and you select China Yuan Renminbi for the Transaction Currency, the system incorrectly displays the Project Currency Amount using the Yuan symbol (¥) on the main form. If you view the Project Currency by selecting it from View Currency on the Line Item tab, the correct symbol is shown.
User Picker	For selecting project/shell users (members of a project team) or company users (all users defined within a company). The options you see are contextual. Use the **>** or **<** controls to move the selected group or user from the Available Items list to the Selected Items list.
Commitment Summaries Picker (CM)	For selecting commitment summary that is

Form Values	Description
	used in a shell.

Supported Data Pickers

The following is a list of the data pickers supported in the BPs:

> **Note:** These data pickers support the Type Ahead feature.

▸ Bid Picker
▸ BP Line Item Picker
▸ BP Picker
▸ Commit Line Item Picker
▸ Cost Attribute Picker
▸ Cost Code Picker
▸ Currency Picker
▸ Date Only Picker
▸ Date Picker
▸ Fund Picker
▸ Group Name Picker
▸ Hyperlink Picker
▸ Image Picker
▸ Location Picker
▸ P6 Activity
▸ Project Picker
▸ Project Template Picker
▸ Shell Code Picker
▸ Shell Picker
▸ Shell Template Picker
▸ SOV Picker

The system does not permit type ahead for the SOV Picker field, in both form view and grid view.

▸ SYS Date Picker
▸ User Picker
▸ WBS Code Picker
▸ WBS Picker
▸ Work Package Picker

Refer to the *Unifier Essentials Data Reference Guide* for details.

Creation Step

The create BP record form opens as a pop-up window. When you create a record, the list of values the form contains tabs (main form and line item tabs), and toolbar options. The main form is displayed as the first tab and each line item tab appears as subsequent tabs. The left pane displays the record details and line item details. The right pane displays additional tabs associated with the main form or line items. You can resize the left and right panes using the

Resize icon.

Main form:

The main portion of the business process form contains information about the BP record, such as the name of the record, description, who created the record and when, and other general information. Additional informational blocks defined by your administrator are also displayed. You can collapse and expand these blocks.

Toolbar Option	Description
Save	To save a draft of the form. You can view your drafts by clicking **Home** and selecting **Drafts**.
Send	To route a workflow business process to the specified recipients. This option is displayed only for workflow BPs.
Submit	Use Submit when you have finished editing a record. Displayed on all Non Workflow BPs when in Edit Mode.

Toolbar Option	Description
☰ **Menu**	The options you see under this menu are based on the BP design. ▸ Auto-Create: Displayed on any BP that can auto create other BPs. ▸ Print HTML, PDF and Custom: Displayed on all BPs. You cannot print draft records. ▸ Export Line item template: Displayed on any BP that has line items. ▸ Reload: Displayed on all BPs. This option will reload the page. ▸ Help: BP-specific help option. If a custom help file is available, it will be listed under the Help menu for the business process log or form. ▸ Close: Close the record.

The right pane displays the following tabs associated with the main form: Attachments, Comments, linked Records, and Linked Mail.

If the **Attachments** tab of the business process form contains any attachments, an **Attachment** 📎 indicator is displayed. If the tab contains no attachments, the right pane is refreshed and the indicator is no longer displayed.

If the **Comments** tab of the business process form contains any comments, a comment indicator (🗩) is displayed. If the tab contains no comments, the right pane is refreshed and the indicator is no longer displayed.

Line Item form:

Line item tabs are displayed after the main form tab. All line items are displayed on the left pane, and the right pane displays the details form associated with the selected line item. The right pane contains the Details form, Attachments, and Linked Records. The Attachments tab is displayed only if the line item form supports the addition of attachments. Query based tabs will not be seen in the Creation step. The *gear menu* (⚙) displays next to each line item on the left pane and contains all available actions you can perform on the line item. The following options are displayed on the *gear menu* (⚙): **Copy**, **Copy With Attachments** (option seen only if attachments exist), **Add to Group**, and **Remove**. The Copy, Add to Group, and Remove options are displayed only for some BPs.

Toolbar Options	Description
Add	To add new line items. The Add button will be seen only if the form design allows for line item additions.
Actions	The following actions will be seen: ▸ **Import** ▸ **Consolidate Line Items**
↻ **Refresh**	Refreshes the line items. All unsaved manual edits will be lost.
🖶 **Print**	Prints the list view. You can choose from: **Print**, **Export To CSV**, and **Export To Excel**. **Notes:** ▸ For export to Microsoft Excel, the system currently supports only Euro (EUR) and United States Dollar (USD) currency symbols. ▸ If you export data from a business process (BP) record, sheet (such as an Activity Sheet), or log (such as Company Funding Sheet Log) to Excel, be aware that depending on how your negative values are formatted, you might need to configure your columns in Excel to match the correct data type (Number). Otherwise, the columns will not be treated as numeric and will not sum as expected. One supported format includes placing the negative sign between the currency symbol and the amount (for example, $-1,000).
🔍 **Search**	Enables users to search for specific line items across all pages.
Find on Page	Enables users to find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.
⊖ **Collapse All Groups** ⊕ **Expand All Groups**	To expand or collapse line items groups. These icons are displayed only when line item groups are present.

Update Step

The following options are displayed when the form is in edit mode.

Toolbar Options	Description
Send	To route a workflow business process to the specified recipients. This option is displayed only for workflow BPs.
Save	To save a draft of the form. You can view your drafts by click **Home**, and then selecting **Drafts**.
Submit	Use Submit when you have finished editing a record. Displayed on all Non Workflow BPs when in Edit Mode.
≡ **Menu**	The options you see under menu are based on the BP design. ▶ Auto-Create: Displayed on any BP that can auto create other BPs. ▶ Print HTML, PDF and Custom: Displayed on all BPs. ▶ Export Line item template: Displayed on any BP that has detail form integration interface defined. ▶ Terminate Record: Displayed on all BPs. This option is displayed only if the user has permissions to terminate records. ▶ Transfer Ownership: Displayed on all BPs. This option is displayed only if the user has permission to transfer ownership. ▶ Undo Accept Task: Displayed on all workflow BPs. This option is displayed only after the user has accepted a task. ▶ View Map: Displayed on all BPs that support geo-coding.

View Step

The View BP record form contains read-only fields and options that are applicable in the View step. The form is divided into two panes--the left pane displays the main form and the line items associated with the record, and the right pane displays additional tabs associated with the main form or line items. The main form is displayed on the left pane as the first tab, and each line item tab appears as subsequent tabs. You can resize the left and right panes using the **Resize** ⋮ icon.

The main form contains Task Details and other informational blocks. You can collapse and expand these blocks. The Task Details section of the form contains details of the assigned task and displays the following fields: From, To, CC (if applicable), Sent For, and Task Due Date (displayed if the task has an assigned due date). This section is not shown for users who have previously declined the task or are on the CC list.

The Attachments, Linked Records, Comments, Linked Mail, Reference Records, Workflow Progress (displayed if user has permission to view progress), and Audit Log (displays only if user has the required permission) appears as tabs on the right pane. The information in these tabs is read-only.

Toolbar Option	Description
Accept	Accept a task. This option is displayed for workflow BPs. You may see this option if your non-workflow BPs is an I Step record.
Decline	Decline a task. This option is displayed for workflow BPs. You may see this option if your non-workflow BP is an I Step record.
☰ **Menu**	The options displayed under this menu will vary based on the BP. ▸ Add more assignees (Displayed for workflow BPs.) ▸ CC more users (Displayed for workflow BPs.) ▸ Review ▸ View Record location ▸ Auto-Create ▸ Export Line Item Template ▸ Email as Attachment ▸ Print - HTML, PDF and Custom ▸ Terminate Record ▸ Transfer Ownership ▸ Help ▸ Close
Edit	Edit non-workflow BPs. This option is

Toolbar Option	Description
	displayed only if you have permission to edit.

About Workflows

The Unifier Essentials workflow engine routes a business process form through business protocols.

When you participate in a business process workflow, you are taking action on the form. For example:

▶ Reviewing and approving an invoice
▶ Responding to a request for information.

Depending upon the workflow setup, you may choose the next recipient of the business process in the workflow, or this may be automatically selected for you. When you send the business process to the next step, it proceeds along the workflow and records each action taken at each step.
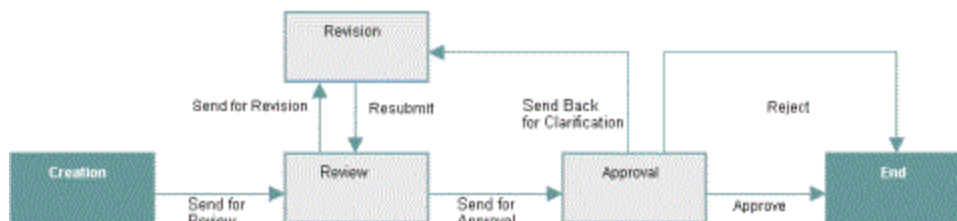
In the above example, the workflow proceeds as follows:

1) Creation: The form is created and filled out and sent for review.
2) Review: During the review, a reviewer has the following options:
   ▶ Return the form for revision (step 3)
   ▶ Send it forward for approval (step 4)
3) Revision: Upon review, if the form is returned to incorporate suggested changes, you will have to resubmit it for review.
4) Approval: In this step of the workflow, an approver can:
   ▶ Return the form for further clarification or revisions
   ▶ Reject the form or
   ▶ Approve the form

   A rejection or approval status essentially ends the workflow. When a business process is approved or rejected, it is considered to be in a "Terminal" status, and this status cannot be changed. However, you can add comments and certain edits to the record.
5) End: After a business process reaches a terminal status, it proceeds to the End step.

> **Note**: A "terminal" status differs from a "terminated" status. A business process is at a terminal status when it reaches the final step in the workflow. A business process with a terminated status was stopped at some point before it reached the final step in the process.

Using Business Processes with Oracle Integration

You can use one or more integrations from Oracle Integration in workflow and non-workflow business processes (BPs).

Prerequisites

▶ Ensure that you have the necessary integration permissions.

▶ The business process is set up with one or more integrations from Oracle Integration which will be invoked based on the status of the business process record.

▶ Go to the **Company Workspace** tab and switch to **Admin** mode. In the left Navigator, select **Integrations**, and then select **Oracle Integration Cloud**. On the **Connect** tab, ensure that **Enable Integration** is set to **Yes**.

Procedure

To use integrations from Oracle Integration in business processes (BPs):

1) Go to the shell tab and switch to **User** mode.

2) In the left Navigator, select **Logs**, and then select a non-workflow or workflow BP.

3) In the **Business Processes log**, select a BP record in the right pane, and click **Open**.

   For non-workflow BPs, proceed to next step.

   For workflow BPs, proceed to step 5.

4) For non-workflow BPs:

   a. Enter information in the BP record and click **Submit**.

   b. Edit the record as necessary, update the **Status** field of the business process, and click **Submit**.

   c. Depending on the BP setup, if the **Status** is associated with an Oracle Integration endpoint, a call is made to Oracle Integration.

   d. Review the job status in the BP log of the non-workflow record.

      For information captured in **Integration Log** tab, see *Business Processes in Company Logs and Navigation Nodes*.

5) For workflow BPs:

   a. Enter information in the BP record and click **Send**.

   b. In the **Workflow Action Details** form, select the next action in a workflow step and click **Send**.

   c. Depending on the workflow setup for this BP, the relevant Oracle Integration endpoint, if applicable, is invoked for the selected action.

   d. Review the workflow status in the BP log of the record.

      For information captured in **Integration Log** tab, see *Business Processes in Company Logs and Navigation Nodes*.

> **Note**: If you have access to the **Company Workspace**, in the left Navigator, select **System Information**, and then select **OIC Integration Log** to view details of the integration job associated with the BP.

Viewing Messages or Cc'd Tasks

If someone copies you (Cc) on a task, it is not a task for you, but it is for your information only and called a message. These business process record copies are listed in your **Notifications** log. You will usually be notified by email when you have a new a message. If you receive an email notification, click the hyperlink at the bottom of the email. You will be directed to the Sign In screen and, after you log in, to the project/shell or company **Notifications** log.

> **Note:** Notifications for View-Only projects/shells are listed in the **Notifications** log, but you cannot add comments to these messages.

Notifications are view-only snapshots of the form at a particular step and remain available for viewing until the BP is sent to the next step. Notifications received for an end-step will remain available in the log.

To view your messages from:

▶ **Home** workspace, click the **Home** node, select **Mailbox** in the left Navigator, and then select **Notifications**.
▶ **Home** workspace, and click **Notifications**.
▶ Project/shell tab, switch to **User** mode, and select **Notifications** in the left Navigator.

Accessing a BP Record from an External System

The system provides a data element for business processes that can display a URL for access to Unifier Essentials from an external system. You can open a view-only copy of the record from that external system.

For example, you might have notifications from the system that are sent to email programs, such as Microsoft Outlook or Yahoo Mail. From that email program, you could open a view-only copy of the business process. Or, you might have an approval process that resides outside of the system. At a certain point in the workflow, the business process record data could be sent from Unifier Essentials to that external approval process. From that external system, you could open a view-only copy of the business process record.

> **Note:** Only new records will show data in the URL field. Any business process designed to be opened from an external system must be available in the **Master Log - Business Processes** grouping node.

To open a business process from an external system:

You must be an active member of the project, shell, or sub-shell, and have at least view permission to the **Master Log - Business Processes** grouping node that lists/contains the business process record you want to view.

Use the URL to access Unifier Essentials. This URL will open the Sign In window. After you are signed in, the system will display the business process record in view-only mode.

> **Note:** If the system has been configured to sign in users using single sign-on (SSO), the **Sign In** window will not appear.

Depending on what permissions you have, you can take the following actions from this view-only copy of the record:

▶ Terminate the business process
▶ Print the business process
▶ Send Mailbox
▶ Transfer ownership
▶ View reference records
▶ View the audit log
▶ View record attachments, comments, linked records, and linked Mailbox
▶ Click line item tabs and open the line items in grid view
▶ Use the Find feature to locate line items
▶ Use any hyperlinked field, such as a picker, an image, or a URL, or the workflow progress link
▶ View the assignees and cc'd users on the step

Business Processes in Company Logs and Navigation Nodes

The **Company Logs** grouping node is in **Company Workspace**. You can use the **Company Logs** grouping node to access the business processes (BPs) that you have permission for.

Depending on your access, there will be multiple navigation grouping nodes for each <shell name> tab. For example, in the **Financial Analysis** grouping node, you might have log-based access for Cost Sheet, Cash Flow, and Funding Sheet.

You can use the enhanced **Search** option (described in the table) in the following logs and nodes:

▶ Company Logs
▶ Tasks log
▶ Drafts log
▶ Any node that tracks BPs that you have access to, such as Budget Management, Change Management, Project Management, and so on.
▶ Line Item Consolidation page
▶ BP Picker
▶ BP Data Picker
▶ Query-Based Tab (QBT)
▶ Bidder Log

To access the BPs in the Company Logs grouping node:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, select **Company Logs** to expand it and see the business processes.

To access the BPs in the various grouping nodes:

1) Go to a project/shell and switch to **User** mode.
2) In the left Navigator, select the applicable navigation grouping node to expand it and see the business processes.

The following explains the log elements in both the **Company Logs** and the various project/shell-based Navigation Node grouping nodes. The logs in each grouping node are divided into two panes, left and right.

The toolbar options and columns on the left pane are:

Option	Description
Create	To create a record and subsequently add attachments, add comments, and include links to other records.

Option	Description
Actions	To perform the following actions: ▶ **Import** ▶ **Export CSV Template** ▶ **Export Microsoft Excel Template** ▶ **Create From Template** ▶ **Bulk Edit** ▶ **Print** ▶ **Transfer Ownership** ▶ **Terminate Record** **Note:** The options that are available depend on the administrative setup and user permissions.
View	The following is a list of the views currently defined and available for selection. Two additional configuration options are provided: ▶ **All Records** (default) ▶ **Records Created by Me** ▶ **Records Received by Me** ▶ **Records Created and received by Me** ▶ **Records from My Company** ▶ **Create New View** ▶ **Manage Views**
Edit View	To edit the current view.
Refresh	To refresh the contents of the log.
Print	To print or export the contents of the log.

Option	Description
Search	Lets you search the log for a specific field or combination of fields, which filters the BP records based on the selected criteria.
	In addition to completing the applicable fields that are displayed in the Search window, you can use the wildcard characters percent (**%**) and underscore (**_**) to refine your search. The percent character represents any number of characters, including letters, spaces, numbers and so on; the search returns all results that contain the search string. The underscore character represents one character.
	For example, in a **Title** field, enter **Co%ts**. The list of results contains all records that include a word that starts with **Co** and ends with **ts**.
Find on Page	Lets you find items on the displayed page.
<BP-specific> **Help**	Lets you access the specific help for the selected BP.

The tabs on the right pane are as follows. The information in each tab corresponds to the record that has been selected.

> **Note:** Displaying a tab depends on the business process type, such as Workflow or non-Workflow.

Tab	Description
Record Details	Lets you see the details of the record that is selected on the left page. The record details seen depend on the form that you have access to.

Tab	Description
Workflow Progress	Lets you see the details of the workflow progress which includes: ▶ View Graphic ▶ Title ▶ Record Number ▶ Current Step ▶ BP Setup Used ▶ Assignee Reassignments? ▶ Step Name ▶ Assignee ▶ Company: This column displays the assignee's company name. For Partner users, this column shows the assignee's Partner Company name. ▶ Status ▶ Action ▶ Completion Date You have the option of filtering (**Filter By**) the information displayed on the workflow progress.
Attachments	Lets you access the record attachment, if available. For each attachment, you can click the *gear menu* (⚙) to conduct the following: ▶ Open ▶ Download

Tab	Description
Integration Log	This tab displays only if a connection with Oracle Integration is set up and enabled for workflow BPs. It displays a history of workflow BPs with the following information: ▶ Date ▶ Workflow ▶ Step ▶ Action ▶ User ▶ Company ▶ ID ▶ Status ▶ Started ▶ Finished ▶ Comments **Note**: When a Workflow BP is created, it displays the status as *Initiated*. Subsequent updates to the **Status**, **Started**, **Finished**, and **Comments** fields are based on the APIs invoked in the Oracle Integration recipes for the Workflow BP. This tab is also available for workflow business processes in the **Master Log -Business Processes** node of the Navigator.

Additional View Form Accessibility in Record and Log Previews

When you view the record preview and the record details upon opening a record, the content seen depends on the form that you have access to. Your administrator may have set up restrictions to view certain form data and may have given access to a View form. This View form may be different from the View form associated with the workflow.

If you have View restrictions for multiple View forms, the first View form from the View Forms list in the BP setup is displayed. If you do not have View restrictions, the Step form is displayed. This is applicable for Record Owners, Record Editors, and Step Editors.

If the end form is an Action form and you have View restrictions, the applicable View form is displayed. However, if you do not have View restrictions, the Action form is displayed.

If the end form is a View form and you have View restrictions, the Restricted View form is displayed. However, if you do not have View restrictions, the View form that is part of the end step of the workflow is displayed.

Record Content Impacted by Additional View Form Accessibility

The additional accessibility of View forms impacts all areas where you can open and view record content. These areas are listed below:

‣ Workflow BP and Tasks logs
‣ Reference Records
‣ Linked Records
‣ Dashboard Drill Down Records
‣ BP Picker, BP Data Picker, and BP Creator links
‣ Permission-driven Data Sources
‣ Cost Sheet, Funding Sheet, SOV Sheet, and so on
‣ Email Notifications
  ▪ If you have View restrictions for the View form in the BP setup, the email has the data elements that are part of the View form. In the case of a task assignee, if the previous checkbox is not selected, the email has the Step form elements.
‣ HTML and PDF Print views
  ▪ If you have access to a Restricted View form, the View form data is displayed.
‣ I-Step Records
‣ Mobile applications

> **Note:** Additional accessibility is not applicable for Master logs because the BP setup is done at the project/shell levels.

When user is an I-Step Assignee, and the record is in the I-Step (initiation step), the existing form will be seen as read-only end-form for Workflow BP records and read-only action-form for Non-workflow BP records.

If the user is an I-Step Assignee but not the creator of the record, and the record is in post-creation step, the restricted view form will be seen if the I-step Assignee has access to restricted view forms.

When I-Step Assignees have access to restricted view form, the following rules apply:

User Name	User Role	Record Status	Form The form that will be seen upon opening the record, as well as in the Logs (BP log) Preview.
User A	I-Step Assignee	Initiation Step	Read-only Action Form/End Form
User B	I-Step Assignee-Creator	Creation Step	Action Form
User C	I-Step Assignee-Not a Creator	Creation Step	Restricted View Form

Create a View of a Log

1) Open the applicable log and select **Create New View** from the **View** menu.

   By default, the **Columns** tab is selected.

2) From the **Available Columns** box, select the columns that you need and click the **Move** icon (the single arrow icon pointing to the right) to move your selected column to the **Selected Columns** box.

   The **Selected Columns** box contains the columns that are seen in the log view. The last column in the **Selected Columns** box is not available for locking.

3) If you want all the available columns to be seen in the log view, select one column in the **Available Columns** box, and click the **Move All** icon (the double-arrow icon pointing to the right) to move all columns to the **Selected Columns** box.

4) To move multiple available columns at the same time, select one column in the **Available Columns** box, hold down the **Ctrl** key, select each additional column from the **Available Columns** box, and then click the **Move** icon (the single arrow icon pointing to the right) to move all the highlighted columns to the **Selected Columns** box.

   You can move each column in the **Selected Columns** box by using the:

   ‣ **Move Up** icon (the single up-arrow icon)
   ‣ **Move Down** icon (the single down-arrow icon)

   You can move multiple columns in the **Selected Columns** box by using the:

   ‣ **Move to Top** icon (the double up-arrow icon)
   ‣ **Move to Bottom** icon (the double up-arrow icon)

   To lock columns in the log view or determine the number of records, or both, use the following drop-down fields in the **New View** window, respectively:

   ‣ **Lock after selected Column**
   ‣ **Number of Records per Page**

5) Complete the **Filters** tab.

   If you want to view only non-workflow BP records that are in an editable state (that is, you want to exclude records that have a status such as submitted, terminal, or initiated), select the applicable options in the **Record** section, and then set the **Show Edit Records** option to **equals** and to **Yes**.

6) Complete the **Group By** tab.

7) Complete the **Sort By** tab.

8) When you are done, enter a name for your view in the **View Name** box, and click **Save**.

Creating a Business Process (BP) Record

You can create a business process (BP) record and access that record from any of the business process logs (**Company Logs** at the Company or Project level in a project/shell).

> **Note**: You must have the proper permissions to create a BP record.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

After a workflow record is created by using any workflow schema (unique combination of Setup Name + Workflow Name), the workflow record continues to reference the workflow schema even if the status of the workflow schema has been set to **Inactive**.

This condition includes workflow records that are in the following statuses:

- ▶ Draft
- ▶ Initiation Step (I-Step)
- ▶ Also, this condition includes any workflow record at any other step in the workflow.

If there is an Active BP Template, the Template continues to create records referencing the Inactive workflow schema. For instructions on creating a template, see *Creating BP Templates and Scheduling BP Creation*.

A new BP record can be created in the following ways:

- ▶ Manually create a new BP record, starting with a blank form.
- ▶ Copy an existing BP record in the same log. The fields will be populated with the original record entries, which can be edited as necessary.
- ▶ Create a BP record from a template.
- ▶ Auto-create a BP record when certain conditions are met or at a specified frequency.
- ▶ Create a BP record from the **Master Log - Business Processes** grouping node.
- ▶ Create a BP record from within the Document Manager, selecting the documents or folders to include as attachments.

Before You Begin Creating a Business Process (BP) Record

Be sure that you have the proper permission settings. All functions are controlled by fully configurable permission settings, including creating business processes. Contact your project/shell or company administrator regarding permission settings.

You cannot create records of other business processes in a business process log (except in the **Tasks** log and **Master Log - Business Processes** grouping node).

For a Workflow Business Process, when you create a record, if the next step is match step *Creation* (per workflow setup), the *To* list will be populated with the user who has signed in.

The users that have been removed from the group, and the newly added users, will not be displayed in the Workflow page, when you create a BP record manually, by way of a template.

Gaps in Generated Business Process Record Number

The Business Process (BP) record number is sequentially generated when you create a record. The newly generated record number is locked so that other records (being created at the same time) cannot use that number. If the BP record cannot be created for any reason (for example, Cost Sheet rules or validations that exist at the SOV level), the system only voids the generated record number and does not reset the record numbering sequence to allow another BP record to pick up that generated number. This operation generates gaps in BP record number generation.

Manually Creating a BP Record from a BP Log

The following is a general procedure that can be used to create a new BP record from any BP log (Company or Project/Shell).

Company Logs

To create a new BP record from *Company BP log*:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, select **Company Logs**, and then select a BP to open the BP log.
3) From the toolbar, click **Create** to open the **Create New <BP NAME>** window.

    The **Create** option is not available if you do not have the permission to create a record.

    You cannot create records of other business processes in a business process log (except in the **Tasks** log and **Master Log - Business Processes** grouping node).

    Example

    You cannot create a Meeting Minutes business process record in an **Action Items** business process log.
4) When finished, click **Create**.

Project/Shell Logs

To create a new BP record from *Project/Shell BP log:*

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select the applicable grouping node, and then select a BP to open the BP log.
3) From the toolbar, click **Create** to open the **Create New <BP NAME>** window.

    The **Create** option is not available if you do not have the permission to create a record.

    You cannot create records of other business processes in a business process log (except in the **Tasks** log and **Master Log - Business Processes** grouping node).

    Example

    You cannot create a Meeting Minutes business process record in an **Action Items** business process log.
4) When finished, click **Create**.

Manually Creating a BP Record from the Master Log

If Master Logs are enabled for your implementation and you have permission to create BP records, you can go to the master log (click **Home**, and then select **Master Log - Business Processes** in the left Navigator).

> **Note:** The name of the **Master Log - Business Processes** grouping node can be customized.

Auto-population is also supported for BP records that are created or edited in the master log.

> **Note:** The default elements and fields (log layout, view, search, and so on) that are defined in the Standard Log determine the Standard user interface elements and fields of all logs.

The following BP records actions and functions *are not supported* in the master log:

▶ Import template
▶ Export template
▶ Permissions

There are specific conditions for creating workflow BP records and non-workflow BP records in the master log.

Creation conditions for *workflow* BP records:

▶ The BP must have an Active setup in the selected Project/Shell.

  If no active setups exist for the BP, the system will notify you.
▶ The selected Project/Shell controls the list of enabled workflow setups.
▶ You must be an assignee on the Create step of the BP, within the selected Project/Shell.
▶ If you save a BP record (during its creation) instead of sending it, the system lists the BP record drafts folder (go to the **Home** workspace and then select **Drafts**) and not the master log.
▶ After you create a BP record, the system lists the BP record in both the:
  ▶ Project/Shell BP log (go to the shell tab and switch to **User** mode; in the left Navigator, select **Logs**)
  ▶ Master log (go to the **Home** workspace; in the left Navigator, select **Master Log - Business Processes**)

Creation conditions for *non-workflow* BP records:

▶ The BP must have an Active setup in the selected Project/Shell.

  If no active setups exist for the BP, the system will notify you.
▶ You must be on the Creator list, for the BP, in the selected Project/Shell.

▸ After you create a BP record, the system lists the BP record in both the:

    ▸ Project/Shell BP log (go to the shell tab and switch to **User** mode; in the left Navigator, select **Logs**)

    ▸ Master log (go to the **Home** workspace; in the left Navigator, select **Master Log - Business Processes**)

To create a BP record from the master log:

1) Go to **Home** workspace.
2) In the left Navigator, expand the **Master Log - Business Processes** grouping node.
3) Select a BP and open the BP log.
4) Click the **Create** icon to open the **New Record** window.
5) Select a value for the **Business Process Origin** field.

The **Details** icon ( ), next to the **Select Business Process Origin** field drop-down list in the **New Record** window, lets you see a list of available options. The list on the left pane is displayed according to your permissions. After you select an entry from the list and click **Select**, your selected option becomes the value of the **Select Business Process Origin** field of the **New Record** window.

The **Select Business Process** field displays the BP that you have selected to create a record for.

The **New Record** window, for a BP, has a **Select Workflow** field which displays value if:

    ▸ The BP is a non-Workflow BP.

    ▸ There is only one Workflow schema available that you can choose.

6) When finished, click **Create**.

Single Record Business Process in Master Log

A single record BP is available at the shell level, and it lets you define additional shell attributes.

You can access the single record BPs, and their subsets, in the **Business Processes** functional node of the master BP log (**Master Log - Business Processes** grouping node), if you have permission. In the master log, you can access single record BPs and perform the following actions:

▸ View and edit the BP record information.

▸ Perform bulk edit on the BP record, across all shells.

▸ Define filtered views.

The **Business Processes** log (under the master BP log) displays the following information in columns:

▸ **Project Number**

    Displays the shell number.

▸ **Project Name**

    Displays the shell name.

▸ **Project Status**

    Displays the shell status.

▸ **Title**

Displays the `uuu_title` value from the record.

▶ **Creator**

Displays the name of the creator of the record.

▶ **Record Status**

Displays the single BP record status.

▶ **Last Updated Date**

Displays the date that the single BP record was last modified.

Similar to other BPs in the master log, when you have permissions, you can perform the following actions (under the **Actions** option):

▶ **Bulk Edit**
▶ **View**

Users or Groups with **View** permission can:

▶ View the single record business process, per project/shell, within the log.
▶ Update the record if they have the **Bulk Edit** permission.

All the Data Elements (DEs) that can be bulk updated are based on the integration settings.

When you bulk edit the single record business process records in the master log, you can update the common attributes across all projects/shells.

Additional Information about Single Record BPs, in Master Log

The following provides various scenarios related to the permissions granted to a user.

View permission for single record BPs, in master log will enable the user to view:

▶ Information about all the records across all shells. Viewing all the single record BPs in the shell hierarchy, is based on the highest level of the hierarchy.
▶ All the single record BPs across multiple shells, with **Active** and **On-hold** status. This will prevent the need to navigate to the individual shells for updating the single record BPs details.

Bulk Edit permission for single record BPs, in master log will enable the user to bulk update:

The default values of the single record BPs, for the selected shell instances, from the master log.

You can navigate to updated single record BPs, in the master log, and verify that the default or existing values have been updated.

To attain a hard copy, or electronic copy, of the single record BPs in the master log, you can generate HTML, PDF, or custom format of the records by using the **Print** option.

For the single record BPs in the master log, you can view the following source information about the record information under the following columns:

▶ Shell Number
▶ Shell Name
▶ Shell Status
▶ Creator
▶ Record Status

▶ Last Updated Date

The system will maintain the shell-level BP permissions, when displaying the single record BPs in master log. This ensures that you only edit the records that you are a member of its creators or record editors, per the pertinent list at the shell level.

You can:

▶ Define a custom view for the master log which includes filtering option by columns. This lets you view all the single record BPs according to your customized filtering and grouping.
▶ Use the **Find on Page** option in the master log, and filter the existing single record BPs.
▶ Use the **Search** option, based on the master log columns and filter the single record BPs that I want to see.
▶ Select multiple single record BPs, in the master log, click **Bulk Edit** (**Actions** options), and see all the DEs that have been defined in the **Integration** tab with direction set as **Both**.
▶ Edit multiple DEs in the **Bulk Edit** window and click **Update**. This causes all the selected DE values to be updated, across all shells.

Manually Creating a BP Record from the Tasks Log

1) Go to the **Home** workspace and click the **Tasks** node.
2) From the **Tasks** log click the **Create** icon to open the **New Record** window. When you create a BP record:
   ▶ The **Create** option is not available if you do not have the permission to create a record.
   ▶ You can only create records of other BPs in the **Tasks** log and **Master Log - Business Processes** grouping node.
   ▶ In a BP log (BPs within the **Master Log - Business Processes** node or within the applicable navigation grouping node), you can only create records of that particular BP. For example, when you go to the **Master Log - Business Processes** grouping node to create a *Budget Change* BP record for your **Cost Management**, when you click **Create**, the system does not let you select any other type of BP record other than a *Budget Change* BP record.
   ▶ You generate tasks for assignees on the next step, and the tasks appear in the assignees' logs.
   ▶ The newly created BP record (including the status) appears in the BP log, as the BP record moves through the workflow.
3) Select a value in the **Select Business Process Origin** drop-down field.

   The **Details** icon (⬚), next to the **Select Business Process Origin** field drop-down field, in the **New Record** window, lets you see a list of available options.

   The list on the left pane is displayed according to your permissions.

   Select the option from the left pane, select an entry from the list (on the right pane), and click **Select**. The list of business process names includes those business processes that you have the "Create" permission for.

Your selected option becomes the value of the **Select Business Process Origin** field of the **New Record** window.

If applicable and if you have the "Create" permission, select a workflow from the **Workflow** drop-down field.

4) In the **Select Business Process** field, click the drop-down list and select a BP that you want to create a record for.

The **New Record** window, for a BP, has a **Workflow** drop-down field which displays a value *if the BP is a non-Workflow BP*.

> **Note**: There is only one workflow schema available that you can choose.

5) When finished, click **Create**. The BP record is now created in the appropriate log.

Creating a BP Record by Copying an Existing BP Record

You can copy an existing business process record to create another business process record of the same type.

The original data in all data entry fields, including line items (if applicable), will be copied. For most business processes, you will have the option to copy attachments to the new form. Other attached information, such as comments, linked records, and linked Mailbox, will not be copied.

The copied record will reflect the data found in the original record. Auto-populated fields will not be refreshed or recalculated.

For non-workflow BPs, copying a record results in creation of a record and not creation of a draft.

In addition, you can restrict the line items to be copied and specify other copy options by using the **Copy with Conditions** copy option. The **Copy with Conditions** lets you:

▸ Copy specific (rather than all) line items
▸ Include or exclude attachments
▸ Retain or remove references to records auto-created from an upper form
▸ Retain or remove references to records auto-created from line items (from all tabs)
▸ Include linked records

The above options are not available for Payment Applications.

Business processes that have been auto-created and are currently in the Initiation step (prior to the Create step in the workflow) cannot be copied. You cannot copy these business processes until the record has been sent or is in a "finish edit" status.

To create a business process (BP) record by copying another BP record in the *Company BP log*:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, select the applicable BP grouping node.
3) Select a BP and open the BP log.
4) Click the gear menu (⚙) next to the record that you want to copy and select one of the following options:
   ‣ Copy with Attachments
   ‣ Copy without Attachments
5) Follow the prompts to complete copying your record for use.

To create a BP record by copying another BP record in the *Project/Shell BP log:*

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select the applicable BP grouping node.
3) Select a BP and open the BP log.
4) Click the gear menu (⚙) next to the record that you want to copy and select one of the following options:
   ‣ Copy with Attachments
   ‣ Copy without Attachments
5) Follow the prompts to complete copying your record for use.

> **Notes:**
>
> ▪ You cannot create a new BP record by copying another BP record in the **Tasks** log.
> ▪ You cannot copy attachments for document BPs. Line items of records are treated as attachments, so details of line items and forms are not copied to document-type BPs.

Reset on Copy of Record

▶ A reset only works on Workflow BP records.
▶ If the Action form associated with the "Creation Step" of record has data elements that have "Reset" property, after copy the system resets the values of these fields.
▶ If the reset is done on an element that has a data set of value/label pairs, and if there is a default value specified, the default value is displayed.
▶ For fields with Data Picker as auto-population source, if the value of the Data Picker (as auto-population source) has been reset, the system resets the value of the field. This means that the auto-population of the form fields from a Data Picker will change if the Data Picker value is reset.
▶ After a reset is done, any formula that depended on the Reset field will be re-evaluated.
▶ If a default value has been specified for a Data Element with Reset property, this default value will be seen in the main form after the Reset operation has been performed. This applies *only* to main forms. Reset does not work for Line items since beause system treats a reset operation as though the user has edited the record and saved it as a draft.

Creating Business Process Records Across Projects/Shells From the Master Log

As a company-level user or partner user, you can create and upload a batch of business process (BP) records across projects/shells from a Microsoft Excel spreadsheet (.xlsx or .xlsm) if you have:

▸ Access to the Master Log
▸ **Allow Bulk Creation** permission

The **Allow Bulk Creation** permission, although visible for all BPs, is supported for only:

  ▸ Simple BPs such as Action items, Project Note, and Field Observations
  ▸ Generic Line Item BPs such as Daily Reports, Warranty
  ▸ Generic Cost BPs (Line item with CBS Code, Line item with Fund Code, Line item with CBS and Fund Code, and Line item with CBS and WBS Code)
  ▸ Transfer Cost BPs (Line item with CBS Code, Line item with Fund Code, Line item with CBS and Fund Code, and Line item with CBS and WBS Code)
  ▸ Base Commit (Line item with CBS Code - Create SOV of General Spends and Payment Applications)
  ▸ Change Commit BPs (Line item with CBS Code - Update SOV of General Spends and Payment Applications)

> **Notes:**
>
> ▪ It is recommended that you use this process to create several records in bulk across projects/shells. It is a scheduled high-priority background job and the job can be processed based on other background jobs in the queue.
> ▪ Do not use this process to update *existing* BP records.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

Procedure

To create business process (BP) records in bulk across projects/shells in the Excel spreadsheet:

1) Create the business process records in the Excel file.

For more information, see ***Creating the Excel File for Bulk Creating BP Records*** (on page 53).

2) Import the Excel file into Unifier Essentials.

For more information, see ***Importing the Excel File for Bulk Creating BP Records*** (on page 55).

3) View the import history details of the bulk creation process.

For more information, see ***Viewing Bulk Create Import History Details*** (on page 56).

4) View error details of business process records, if any, associated with the bulk update process.

For more information, see ***Viewing Error Details of the Bulk Create Import Process*** (on page 57).

5) Resolve the errors and re-import the business process records.

For more information, see ***Reusing the Error File Spreadsheet For Bulk Create Import Process*** (on page 58).

Creating the Excel File for Bulk Creating BP Records

When you use Bulk Create or Bulk Update, you start by exporting the BP design structure to a Microsoft Excel or CSV file and then populating the required fields. If you leave a Data Picker Data Element (DE) field blank that is configured to Auto Populate, the system completes the field when you run a Bulk Create; however, it does not complete the field when you run a Bulk Update. To reduce confusion and maintain consistency for both Bulk Create and Bulk Update, the system uses the Excel or CSV file to populate the Data Picker field if the field is excluded from the Integration Form for the BP design.

You must have **Allow Bulk Creation** permission to complete this task.

To bulk create business process records across projects/shells in the Excel spreadsheet:

1) Click the **Home** (⌂) tab.
2) In the left Navigator, select the **Master Log - Business Processes** node and select a specific business process.
3) Open the **Business Process** log in the right pane. For example, open the **Action Item** BP log.
4) Download a Shell Details Excel file to identify the projects/shells that will contain the new BP records you plan to create:
   a. From the **Actions** menu of the business process log in the right pane, select **Download** and then select **Shell Details.**
   b. Download and open the ShellDetails.xlsx file.

   For more details on the file contents, see ***Microsoft Excel File Format of Shell Details File*** (on page 90).

   > **Note**: The ShellDetails.xlsx file contains a list of all active projects/shells you can use to create BPs across projects/shells.

5) Download the template for creating BP records:

     a. From the **Actions** menu in the right pane, select **Download** and then select **Template for Record Creation**.

     b. Locate the downloaded file.

6) Open the downloaded <Selected *BP Log Name*>_bulkcreate.xlsx file. For example, open the ActionItem_Bulkcreate.xlsx file.

    For more details on the downloaded file format, see ***Microsoft Excel File Format for Bulk Creating BP Records in the Master Log*** (on page 88).

7) Add BP records in the Excel file as follows:

    a. In the **Main Form** tab of the Excel file, enter the details of each BP record.

> **Note**: The combination of the **Shell Number** and **Record Sequence Number** must be unique for each BP record.

    b. (Optional) To add line items to a BP record:

      1. Select the **Line Item** tab or any additional tab that may display based on the BP design in the Excel file.

      2. Copy the **Shell Number** and **Record Sequence Number** values from the **Main Form Tab**.

        To add multiple line items to the same BP record, use the same combination of **Shell Number** and **Record Sequence Number**, but with sequential values in the **Line No.** field.

      3. In the **Line No.** field, enter a sequence number for each line item.

      4. Enter details for each line item.

    c. Repeat the previous step as needed to add multiple line items to the same BP record.

8) Repeat previous step to add BP records in multiple projects/shells.

> **Note**:
> - Use the unique combination of the **Shell Number** and **Record Sequence Number** specified in the **Main Form** tab in all subsequent tabs.
> - If you rename any tabs with line items, the data in those tabs will not be processed.

9) Save the Excel file (.xlsx or .xlsm).

10) Import the data created in the Excel spreadsheet into Unifier Essentials.

    For more details, see ***Importing the Excel File for Bulk Creating BP Records*** (on page 55).

Importing the Excel File for Bulk Creating BP Records

Each Excel file (.xlsx or .xlsm) for import must not exceed 100,000 rows of record and line-item data, including the header and blank rows. It is recommended to use Excel import to create thousands of records in bulk across projects.It is a scheduled high priority background job and the job can be processed based on other background jobs in queue. Ensure you do not use this import process to update existing records. A maximum of 100,000 rows (including headers and blank rows) can be included in the imported file.

After *Creating the Excel File for Bulk Creating BP Records* (on page 53) across projects/shells, import the Excel file to add the new BP records in Unifier Essentials as follows:

1) Click the **Home** (⌂) tab and switch to **User** mode.
2) In the left Navigator:
   a. Click the **Master Log - Business Processes** grouping node.
   b. Select the specific business process where the BP records are to be imported. For example, select the **Warranty** business process.
3) In the right pane:
   a. From the **Actions** menu, click **Import**.
   b. In the **Import Records** drawer, drag and drop the saved Excel file, and click **Import**.

   A message displays indicating the import has been initiated.

   > **Note**:
   > - To avoid data format validation issues, the logged-in user's preferences are used instead of the auto-creation user's preferences.
   > - Business process (BP) records will be created using the Creation Form of the workflow selected in the **BP Setup** of each project/shell instead of the Integration Form.
   > - Required fields in the downloaded template file are determined by the Integration Validation Form.

4) To review status of the imported data, perform any of the following actions:
   ▸ Click the **View Import History** link in the displayed message
   ▸ Click the **View Import History** from the **Actions** menu
   ▸ Click the link in the email notification you receive

   If the import process is *Completed Successfully*, you will receive a success message.

   If the import process is *Completed with Errors*, check the attached error file that contains a list of erroneous records.

   If the import is unsuccessful, review the *import history details* (see "*Viewing Bulk Create Import History Details*" on page 56).

File Validations

When the import is initiated, the file is checked for the following:

▸ If the Excel file has the same column structure as defined in the Integration tab in Main Form or Line Item worksheets

▸ If the **Shell Number** and **Record Sequence No.** columns have been removed, renamed, reordered, or duplicated in the **Main Form** tab

▸ If the **Shell Number**, **Record Sequence No.**, and **Line No.** columns have been removed, renamed, reordered, or duplicated in the **Line Item** tabs

▸ Duplicate rows in the **Main Form** tab with the same **Shell Number** and **Record Sequence No.**

▸ If the **Record Sequence No.** is a non-integer or a random string

Data Validations

When the import is initiated, the data is checked for the following:

▸ If the Business Process, Integration settings, or default workflow are not set up in the specified project/shell

▸ If the **Shell Number** is not valid in the **Main Form** tab.

▸ If the project/shell numbers specified in the **Line Item** tabs do not exist in the **Main Form** tab

▸ If the project/shell numbers are not valid in the **Line Item** tabs

▸ If project/shell numbers with **Inactive**, **View-only**, or **On-hold** statuses are specified

▸ If required fields have been specified

▸ If invalid values have been specified for data elements

▸ If form validation rules are satisfied

▸ If dynamic data set behavior data elements are updated via import data and behavior element is read-only based on master value

Viewing Bulk Create Import History Details

If you have the **Allow Bulk Creation** permission, you can view the import data history details for the files containing BP records across projects/shells that you imported into the Master Log.

To view the import details history:

1) Click the **Home** (⌂) tab and switch to **User** mode.

2) In the left Navigator:

   a. Click the **Master Log - Business Processes** grouping node.

   b. Select the specific business process where the BP records are to be imported. For example, select the **Warranty** business process.

3) In the right pane:

   a. From the **Actions** menu, click **Import History Details**.

   b. Review the following information in the import history:

      ▪ **Uploaded File**: Click to download the Excel file that was uploaded originally.

      ▪ **End Date**: The end date and time of the import process.

      ▪ **Start Date**: The start date and time of the import process.

      ▪ **Records Processed:** The total number of BP records in the **Main Form** worksheet.

- **Records Imported**: Click to download an Excel file displaying the project/shell name, shell number, record number, and the title of the records that were created successfully. The file name is generated in the format, *Imported_<Uploaded File Name>.xlsx*.
- **Failed Records**: Click to download an Excel file to review the list of failed records .The file name is generated in the format, *Failed<Uploaded File Name>.xlsx*.
- **Status**: Displays the job status of each imported file as any of the following:
    - **Not Started**: Indicates the import is yet to commence.
    - **In Progress**: Indicates the import job is in process.
    - **Completed Successfully:** Indicates all records and line item data have been successfully created.
    - **Completed with Errors**: Indicates records were partially created or failed to create at least one record.
    - **Aborted**: Indicates the job could not progress due to system issues or server failures.
    - **Failed**: Indicates record is not created.
- **Requested By**: The username of the logged-in user who initiated the bulk create import job.

Viewing Error Details of the Bulk Create Import Process

If you have **Allow Bulk Creation** permission, you can view the import history details for the files you imported to create BP records across projects/shells from the Master Log node.

The **Import History Details** window displays a log of all the files imported and their outcomes for a business process.

If the import process is successful, the **Job Status** indicates *Completed Successfully*.

If the import process is *Completed with Errors*, you can either download the input file or the error file to correct the data and re-import.

If the import process is *Aborted*, you can continue importing the remaining data.

To view the outcome of the import process:

1) Click the **Home** (⌂) tab and switch to **User** mode.
2) In the left Navigator:
    a. Click the **Master Log - Business Processes** grouping node.
    b. Click the BP node where you want to import the BP records. For example, select **Master Log - Business Processes**, and select **Warranty**.
3) In the right pane:
    a. From the toolbar, click **Actions**, and select click **Import History Details**.
    b. If the import process is *Completed with Errors*, select that row to perform any of the following actions:
        - Download the *input file* using any of the following options:
            - Click the **gear menu** (⚙) of the row and select **Download Input File**.

- From the toolbar, click **Download** (⬇), and select **Input File**.

Correct the data in the input file and re-import as outlined in *Updating BP Records in Excel for Bulk Update From Business Process Log Node* (on page 186).

- Download the *error file* using any of the following options:
    - Click the **gear menu** (⚙) of the row and select **Download Error File**.
    - From the toolbar, click **Download** (⬇), and select **Error File**.

Correct the data in the error file to re-import as outlined in *Reusing the Error File For Bulk Update Import Process* (on page 206).

- Click **View Error Details** (⬚)to review a list of erroneous records in the **Import Error Details of <filename>** window.

c. You can also perform any of the following actions:

- Click **Refresh** (↻) to refresh the **Import History Details** window.
- Click **Search** (🔍) to open the **Search** window.

Reusing the Error File Spreadsheet For Bulk Create Import Process

If the bulk create import process is *Completed with Errors*, an error file (.xls or .xlsm) is generated with a list of erroneous records identified by the import process. You can resolve these errors and reuse the error file to re-import the records.

> **Note:** You should have **Allow Bulk Creation** permission to import or re-import BP records using a Microsoft Excel spreadsheet (.xlsx or .xlsm) from the **Master Log** grouping node.

The generated error file adheres to Error File Spreadsheet Format of Bulk Create Import Process by default.

To reuse the error file for re-import:

1) In the **Main Form** tab, resolve the errors identified for each BP record.
2) In the relevant **Line Item** tabs, if any, resolve errors corresponding to the BP record identified in the previous step.
3) In the **Action** column, select **Update** for each record. Otherwise, by default, the line item will not be updated when set to a *Blank* value.
4) After resolving all errors, delete **Column A** to clear all errors identified in the **Main Form** tab and relevant **Line Item** tabs.
5) Save the modified error file to prepare for import.
6) Import the error file as described in *Importing the Excel File for Bulk Creating BP Records* (on page 55).

Copying a BP Record in Master Log

To create a BP record by copying another BP record in *master log* (**Master Log - Business Processes** grouping node):

Notes:

- The name of the **Master Log - Business Processes** grouping node can be customized.
- You cannot copy attachments for document BPs. Line items of records are treated as attachments, so details of line items and forms are not copied to document-type BPs.

1) Go to the **Home** workspace.
2) In the left Navigator, expand the **Master Log - Business Processes** grouping node.
3) Select a BP and open the BP log.
4) Click the *gear menu* (⚙) next to the record that you want to copy and select one of the following options:
   - Copy with Attachments
   - Copy without Attachments
   - Copy with Conditions
5) Follow the prompts to complete copying your record for use.

> **Note**: You cannot create a BP record by copying another BP record in **Tasks** log (go to the **Home** workspace and select **Tasks** in the left Navigator).

See *Restricting Line Items by Using Copy with Conditions Option* (on page 105) for more details.

Visibility of Properties Tabs in BPs

In a company, a shell, or a project (**Master Log**, **Company Logs**, **Single-Record BP Log**, and applicable navigation grouping nodes), when you open a business process and select a record, the window displays the properties pane with a series of applicable tabs (record properties) such as **Record Details** tab, **Notifications** tab, **Record Properties** tab, **Attachments** tab, **Permissions** tab, and so on.

The Record Properties tab lets the administrator define restrictions within the BP setup on who can view specific tabs. This rule also applies to the following nodes:

- **Drafts**
- **Tasks**

For the **Attachments** tab, if you have restrictions to download, you will only be able to view or access the attachment; you cannot download or save the attachment to a local system.

Auto-Creating BP Records

There are different ways of auto-creation:

1) Auto-creating a record or line item when it reaches a particular condition or frequency (I-Step)

2) Using a template that is scheduled to auto-create records

Notes:

- For auto-created records, the system will populate the due date time for the auto-created record from the source record instead of copied record, if the following conditions apply: the due date element in the record is a formula (including today), and the source record is copied from another record, and if there is a time gap between the source and the copied record.

- Line items will not be copied if either the source tab name or destination tab name that displays in the Auto-creation Processes - Upper or Detail setup is incorrect. If you update a source or destination tab name of a BP from the **Item Logs** navigation menu, ensure that you verify the tab name mapping for autocreation.

- When the system auto-creates a project-level Cost- or Commit-type business process (BP) that contains an upper (main) form reference to a company-level commit-type BP record (such as a Blanket Purchase Order [BPO]), the value is copied to the destination record if a matching DE exists. However, if a BPO Lineitem Picker value existed in the detail form of the source record, that value is not copied over to the line items of the auto-created record.

- Because a Summary Payment Application (SPA) BP contains two sub-tabs—Line Item and Cost Breakdown—on the Detail Form, the system does not support I-Step auto-creation of line items from a non-SPA BP to an SPA BP.

- If the Completion Policy for a step is set to **All-Consensus** and **Auto Creation** is enabled, automatic creation of the applicable items begins after all assignees have agreed on the action.

Reset on Creation Step

The following rules apply:

- If the Action form associated with the Creation Step has Data Elements (DEs) that have Reset property, the post auto-creation the values of these fields will be reset.
- Regardless of whether the auto-created record is in I-Step or not, the values must get reset.
- Fields with auto-population source, "Data Picker" whose value has been set as reset must get reset.
- After a reset is done, any formula that depended on the Reset field will be re-evaluated.
- Reset will work for Workflow BPs only (This is an existing limitation).

▸ If a default value in the reset field has been specified for a DE that has reset property, this default value will be seen in the Upper Forms after the Reset operation has been performed post auto creation. This will be applicable to Upper Forms only.

> **Note:** Reset will not work for line items because the system will treat a reset operation as though the user has edited the record and saved it as a draft.

Auto-Create a BP Record, or Line Item, Based on Conditions or Frequency

A BP might create a new record or line item if certain criteria are met. The criteria can be:

▸ A **condition**, such as a dollar amount.
▸ A **frequency**, such as a daily or weekly time frame.
  ▸ Only for a record
  ▸ Line items cannot be created with a frequency trigger.
▸ Both a **condition** and a **frequency.**

When the business process or line item reaches the condition or frequency trigger(s), the form will automatically create a new record and send it to an **Initiation step (I Step)**. These forms contain a **Creator** field to activate the auto-creation, either automatically or manually. If you have **Modify Ownership** permission on the source record, you can auto-create new records or line items. You can also override conditional auto-creation and immediately invoke the auto-creation manually if necessary.

> **Note:** If the line items have been grouped (as part of the BP setup), you can manually invoke the auto-creation; however, only those line items in a status of "pending creation" will be grouped.

Auto-creation Conditions

If you are using a condition-based auto-creation process, ensure that you allow enough time (depending on the number of running background jobs) for routing of the workflow.

When the workflow advances, the system schedules an auto-creation job and executes it with high priority. If the workflow advances again, before the auto-creation job is executed, the system will not schedule a new auto-creation job.

> **Notes:**
> ▪ The manual auto-creation is transactional. The condition-based auto-creation is not transactional.
> ▪ If the option **Do not evaluate condition based autocreation** is selected for the workflow, the BP creator's conditions will not be evaluated irrespective of the conditions added in the auto-creation

> setup. This helps to reduce processing time when there are no BP creators on that step.

Because of the general way that processes are organized and relate to each other in the system, when you create a job, several factors come to play to determine the job processing time.

Regardless of the job prioritization (high priority or low priority), the system will hold, or delay, processing the succeeding job when a record is being updated concurrently (for example, through web service or manual updates), until the current job, or auto-creation, is complete. In other words, if a record is updated manually and the record auto-creation is in progress, the next request that is submitted by way of "UpdateRecord" will not trigger an auto-creation procedure because the previous job must finish first.

> Example:
>
> When a workflow advances from step 2 to step 3, the auto-creation initiates and is in progress. When the workflow advances from step 3 to step 4, if the system detects that the first job was not completed, the system will prevent the second job from completing (auto-creation will not take place for the subsequent job).

Additional Information about Auto-creation Conditions

▶ Only manual auto-creation is form based.

▶ The auto-creation process does not depend on a business process form.

▶ When a line item is auto-created (by using the line item auto-creation logic), the values in the fields on the line item that are based on a data picker in that line item will not be auto-populated.

Bypassing the I Step

During business process setup, the administrator can set up the auto-created workflow business process to skip the initiation step and send the record directly into the workflow, where it normally arrives at the first step after the Create step (or the first step in a conditional routing). For a workflow business process, the administrator specifies the schema, the step in the workflow that the record should use as its first step, the workflow duration, and the name of the person or group who will be the owner of the auto-created record. When the record is created, data will roll up to manager sheets at the appropriate status; however, if the system encounters errors or invalid data, the record will remain at the Create step, and roll-ups will not occur until the user resolves the errors.

For a non-workflow business process, the administrator can set up an auto-created record to skip the initiation step. In this case, the system creates the non-workflow business process record and lists it in users' logs in either:

▶ Edit mode. When the record is in edit mode, you can see the **Submit** button.

▶ Read-only mode. When the record is in read-only mode, you can see the **Edit** button.

 If it appears in edit mode, the user will have to open the record and add or correct information on the form. If it appears in read-only mode, the record is considered complete, and data will roll up to manager sheets.

> **Note:** Business processes are not auto-created in projects/shells that
> have the **View-Only** or **Inactive** status.

Your administrator sets up the auto-creation by specifying:

▸ The name of the person or group who will be the owner of the auto-created record.
▸ (For workflow business processes) The workflow schema to use.
▸ (For workflow BPs) Which step in the workflow the record should use as its first step
▸ (For workflow BPs) The workflow duration
▸ The criteria that will trigger the auto-creation
▸ Whether attachments to the record or line item will be included when the record is auto-created
▸ Whether records that were linked to the creating record should also be linked to the newly created record, or to the new line item
▸ Whether the I Step should be bypassed when a new record is auto-created
▸ Whether the line items from line item tabs should be grouped

Delete Error Lines

The **Delete Error Lines** option appears in the **Errors and Warnings** window when you finish editing (or send) a BP when the BP line items are failing validation errors (such as required field check, and so on). The Delete Error Lines option lets you delete the faulty BP line items and route the BP record to the next step, if the BP line items are not needed.

> **Note:** After you delete the faulty BP line items, the system removes
> them permanently without providing an option to access them.

If line item auto-creation fails

If the line-item creation is auto-created with a condition-based query (that is, not manually), the system will send an email notification to the business process owner. The email will contain location information so that the recipient can see where the auto-creation originated and where it failed. Following are conditions under which line item creation can fail:

▸ The To field is empty. This is possible if the assignee becomes inactive after the schedule is created or if a group is empty.
▸ The CBS code is invalid, which can happen if the CBS code becomes inactive after selecting in the template.
▸ The rules engine validation fails.
▸ For payment applications, the associated SOV is locked, either by the payment application record in routing, or by a change commit with a negative line item value. See *Payment Application Business Processes* (on page 225) for details.

> **Note:** If the destination business process does not exist or has not been
> imported into the system, the location specified in the email notification
> might be non-existent or incorrect.

Bypassing the Initiation Step (I-Step)

During the Business Process (BP) setup, the administrator can set up the auto-created workflow BP to skip the **Initiation** step and send the record directly into the workflow, where it normally arrives at the first step after the **Create** step (or the first step in a conditional routing).

Workflow BP

For a workflow BP, the administrator specifies the workflow schema to use, the step in the workflow that the record should use as its first step, the workflow duration, and the name of the person or group who will be the owner of the auto-created record. When the record is created, data will roll up to any applicable manager sheets (for example, the cost sheet) at the appropriate status; however, if the system encounters errors or invalid data, the record will remain at the Create step, and roll-ups will not occur until the user resolves the errors.

Non-workflow BP

For a non-workflow BP, the administrator can set up an auto-created record to skip the initiation step. In this case, the non-workflow BP will be created and will appear in the users' BP logs in either an "edit" or "finish edit" mode. If it appears in an "edit" mode, the user will have to open the record and add or correct information on the form. If it appears in a "finish edit" mode, the record is considered complete, and data will roll up to any applicable manager sheets.

Additional information about bypassing the I-Step

In the following scenarios, If the auto-creation of a change commit BP is set to "Bypass I-Step," the auto-created record will remain in I-Step and the element "refid" will remain blank:

▶ If the source BP form has no BP Data Picker, or BP Picker, pointing to the Change Commit "refid" Base Commit BP.
▶ If the source BP form has more than one BP Data Picker, or BP Picker, that satisfy the conditions needed to populate "refid" (map to the Change Commit "refid" Base Commit BP).
▶ If the conditions on "refid" picker are not satisfied by the value from the source BP, for example, the "refid" picker only allows an "Approved" Base Commit, but the source BP sends a "Pending" record.
▶ If the value from the source BP that is mapped to the "refid" element is set as: <null>.
▶ When copying the Line Items form a source to the destination record:
  ▸ The source Detail form does not contain the element: `uuu_sovlinum`
  ▸ The destination Change Commit Detail tab contains the element: `uuu_sovlinum`

> **Note**: In this scenario, the Line Items will be copied from the source to destination, and the `uuu_sovlinum` field will be set as blank. All other fields will be mapped from source to destination Detail form.

In the above scenarios, because the "refid" is blank, no Line Items will get copied into the "Standard" tab of the auto-created Change Commit record.

> **Note**: If any other tab in the "Change Commit" is configured to copy Line Items from the source, those Line Items will be copied.

A "Change Commit" type BP can be created from another BP Upper or Detail form.

For Workflow BP, when By Pass I-step selected, the following process takes place:
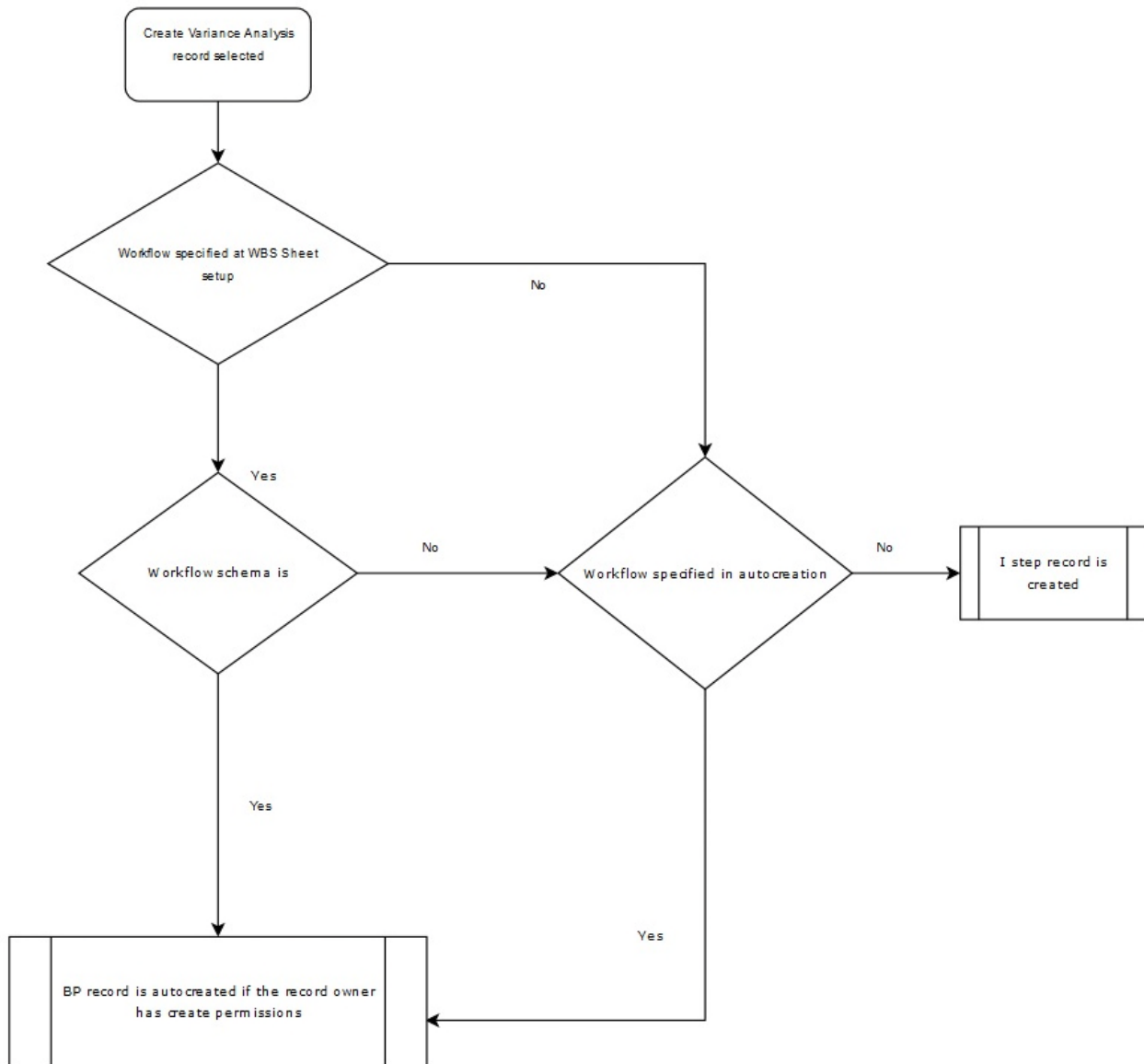
Examples of Auto-Creation

The system can use the auto-creation feature to manage events such as creating Action Items from Meeting Minutes. The auto-creation feature can be used to create and assign tasks to different people creating a fully automated flow for routing of action items from meeting minutes records that have lines items. For example, each line item Action Item could auto-create a separate Action Item records from the meeting minutes record.

For Line Item Creation

▶ A line item cannot be auto-created on a record that is at a terminal or terminated status.
▶ If a line item is created on a non-workflow cost type business process, the cost amount(s) will roll up to the Cost Sheet.
▶ If a line item is created on a workflow cost type business process, the cost amount(s) will not roll up to the Cost Sheet.

Exception for Auto-Creation

The feature cannot auto-create Payment Application business processes and General Spends business processes because these business processes use the Schedule of Values (SOV), from a Cost type business process.

Rules for Checking Conditions for Auto-Creation

There are rules that govern when the Unifier Essentials scheduler checks the conditions for auto-creation, and then if these conditions are met, it auto-creates the BP.

Rule 1

The Company Administrator selected the Enable Auto creation checkbox for BP Creator when the auto-creation was set up.

If the Enable Auto creation checkbox is selected, it implies system based auto-creation, and the BP Creator Select button is not displayed in User mode.

For non-workflow BPs: The condition check occurs on **Submit**. If condition met, creates record and shows the link for the auto-created BP. If no condition is specified auto-creates records and shows the link for the auto-created BP.

For workflow BPs: The condition check occurs on **Send**. If end step reached and Action Form is used on End Step, the condition check occurs on **Save** instead of **Send**. If condition met, creates record and shows the link for the auto-created BP. If no condition specified blindly creates records and shows the link for the auto-created BP.

If the Enable Auto creation checkbox is not selected, it implies manual creation.

For non-workflow BPs: The condition check does not occur on **Submit**.

For workflow BPs: The condition check does not occur on **Send**.

BP Creator - Select button shown in User mode so that the user can create the business process manually. If clicked, creates BP record without checking any condition, and creates record and shows the link.

Rule 2

Date Trigger Condition check: Are checks on the specified Date Data Element. For workflow or non-workflow BPs, this setup implies that the condition checks are done on a date instead of Finish Edit/Send, if a link does not exist next to BP creator element. If a link exists, it will not create any new records for that BP Creator element in the chosen line item of the record.

Rule 3

Trigger Condition check based on frequency (Periodic): Are checks on frequency for BP Creator elements with Enable Auto creator checked. If specified, these are the only time condition checks are done. This overrides any other checks for date. This is the only method to create multiple records even if a link exists and a record has already been created for this BP Creator element. The link created using this will always point to last auto-created record.

Auto-Creation in Operation

Upon auto-creation, the following are *not* copied to the auto-created Business Process (BP) from the source BP:

▶ Line item status
▶ Creator fields
▶ Hidden tab data

When a line item is auto-created (by using the line item auto-creation logic), the values in the fields on the line item that are based on a data picker in that line item will not be auto-populated.

These elements are copied from the source BP to the auto-created BP on certain conditions:

▶ CBS codes are copied from the source business process to the auto-created business process if the codes are available in the destination shell.
▶ User/Group Picker values are copied only if they are available in the destination shell.
▶ **Transaction currency** field is copied if that currency is available in the destination shell.

Change Commit

▶ A "Change Commit" type BP always holds a required BP Picker element (refid) on the BP Upper form. This BP Picker is configured to point to Base Commit BP.
▶ During the auto-creation of a "Change Commit," the required BP Picker element (refid) on the BP Upper form gets populated with the value of the same BP Data Picker, or BP Picker (the source BP). This value:
  ▸ Resides on the same form as the BP Creator, and
  ▸ Points to the same Base Commit type BP as the BP Picker element (refid) is configured to point to.

Attachments

Including attachment in the **Auto Creation** tab of the BP setup enables the copying of attachments from both the upper and detail forms.

When a record is auto-created and receives Line Items from a reference record during the auto-creation, the Line Item attachments transfer from the source reference record.

If the option of including attachments in a BP setup BP creator configuration is checked, the source Line Items from a "Referenced" picker will be copied into the auto-created record with attachments. This applies to BP creators on upper as well as detail form.

If an attachment existing in the Line Items of the Source BP record needs to get copied to the upper form of the destination BP record, the project administrator can specify the levels for the transfer of attachments: Upper form to Upper Form, Line Item to Upper Form, and so forth.

> **Note**: The system will not error out for duplicate file attachments in auto-created records. Hence, the recommendation is to check for duplicate file attachments in source records regardless of the level at which they are attached when the **Copy Line Item Attachments to the Upper Form of the Record** option is selected in the auto-creation setup.

The following provides more details:

The **Business Process Setup** window enables your administrator to provide additional levels of granularity for copying attachments when auto-creations are happening from Record to Record and Line Item to Record methods of Auto creation.

Record to Record

This option is pre-populated by the system based on where the BP Creator is located. If the BP creator is located in the upper form of the BP, this option will be seen in the above-mentioned field.

Line Item to Record

This option is pre-populated by the system based on where the BP Creator is located. If the BP creator is located in the detail form of the BP, this option will be seen in the above-mentioned field.

The **Auto Creation** tab (in the **Business Process Setup** window) provides the following attachment options:

- **Include Upper Form Attachments**
- **Include Detail Form Attachments**
    - **Copy Line Item Attachments to Upper Form of the Record**
    - **Copy Line Item Attachments to Line Items of the Record**
- **Bypass Initiation Step during auto creation**
- **Copy Linked Records**

The following explains the results of the selections:

When the **Include Upper Form Attachments** option is selected, and the source is a Line Item BP, the attachments from the Upper Form of the source record are copied over to the Upper Form of the auto-created record.

▸ If the destination is a Line Item BP, then:
  ▸ The line items may get created but no attachments from the line items will get copied over.
▸ If the destination is a Simple BP, then:
  ▸ No attachments from the line items will get copied over to the Upper Form.

When the **Include Detail Form Attachments** option is selected, and the source is a Line Item BP, the **Copy Line Item Attachments to Upper Form of the Record** option will be selected by default.

> **Note**: The **Copy Line Item Attachments to Upper Form of the Record** option will be selected by default to inform you that because the destination is a Simple BP, checking the option of Include Detail Form Attachments will always add the line item attachments to the Upper Form of the Simple BP.

▸ If the destination is a Line Item BP, then:
  ▸ The attachments from the line items of the source record are copied over to the Upper Form of the auto-created record. If the Upper Form of the source BP record has attachments, the attachments will not get copied over.
  ▸ The line items may get created and any attachments from the source line items will get copied over as Upper Form attachments. The line items from the source may be seen in the auto-created record; however, the line items will not have any attachments.
▸ If the destination is a Simple BP, then:
  ▸ The attachments from the line items of the source record are copied over to the Upper Form of the auto-created record. If the Upper Form of the source BP record has attachments, the attachments will not get copied over.

When the **Include Detail Form Attachments** option is selected, and the source is a Line Item BP, the **Copy Line Item Attachments to Upper Form of the Record** option will be selected by default. The attachments from the line items of the source record are copied over to the line items of the auto-created record. If the design of the source BP does not have any tab mapping, the line items will not get created, and the line item attachments will not get copied over.

▸ If the destination is a Line Item BP, then:
  ▸ The line items created in the destination record will have attachments from the corresponding line items of the source record.
▸ If the destination is a Simple BP, then:
  ▸ The option will not be available.

When the **Include Upper Form Attachments** and the **Include Detail Form Attachments** options are selected, and the source is a Line Item BP, the **Copy Line Item Attachments to Upper Form of the Record** option will be selected by default.

▸ For Line Item BPs and Simple BPs:

   ▸ The Upper Form attachments from the source record and the line item attachments from the line items are copied over as an Upper Form record attachments in the destination record.

When the **Include Upper Form Attachments** and the **Include Detail Form Attachments** options are selected, and the source is a Line Item BP, the **Copy Line Item Attachments to Upper Form of the Record** option will be selected by default.

▸ For Line Item BPs:

   ▸ The Upper Form attachments from the source record are copied over as an Upper Form record attachments in the destination record. The Line Item BP attachments, from the line items of the source record, will are over as line item attachments, if the design permits the creation of line items.

   > **Note**: When only the **Include Detail Form Attachments** option is selected, the attachments from the Detail Form of the Line Item type BP will not copied to a Simple BP, on Auto-Creation.

When the **Include Upper Form Attachments** is selected, the source is a Simple BP, the **Copy Line Item Attachments to Upper Form of the Record** option is selected (disabled by the system), and the **Copy Line Item Attachments to Line Items of the Record** option is disabled by the system:

▸ If the source is a Simple BP:

   ▸ The only option that is available is the **Include Upper Form Attachments**.

▸ If the source is a Simple BP and the destination is either a Simple BP or a Line Item BP:

   ▸ The Upper Form attachments from the source record of the Simple BP is copied over as Upper Form attachments in the destination record.

Schedule BP Auto-Creation Dynamically

Auto-created business processes can be scheduled for creation from setups created by an administrator, or you can create them dynamically.

To create business process records using auto-creation:

1) Navigate to a business process log and open the source BP record to use for auto-creation.
2) Open the **Menu Options** ≡ and select **Auto-create**.
3) Select the **Enable Scheduled Runs** checkbox.
4) Under **Frequency**, choose how often you want the auto-creation to occur: Daily, Weekly, Monthly, or Yearly.
5) Under **Range of Recurrence**, specify the date range during which the auto-creation should occur.
6) Click **Done**.

   After the new record is auto-created, there is a link in the source record to the newly created record. Click this link to access the auto-created record. The link always accesses the last record created by the auto-creation.

After you create a **workflow** record, the system sends it to the assignees as an **initiation task (I Step)** that will appear on their **Tasks** log and the Business Process (BP) log to which the record belongs. If a new record is sent as an initiation task, users must accept the task to manually launch the record.

After you create a **non-workflow** record, the system sends it to the designated creators as an **initiation task (I Step)** that will appear on their **Tasks** log and the BP log to which the record belongs. Users must accept the task to view the record.

> **Note**: If your administrator has set up these business processes to bypass the I Step, the new records will appear at different workflow steps, or in different statuses. For more information, see ***Bypassing the Initiation Step (I-Step)*** (on page 64).

Stop Auto-Creation

To stop the creation of auto-created business process records:

1) Navigate to a business process log and select the source record or records to use for auto-creation.
2) Open the **Menu Options** ≡ and select **Auto-create**.
3) Deselect the **Enable Scheduled Auto creation** checkbox.
4) Click **Done**.

Create a BP Record, or Line Item, with Manual Auto-Creation

> **Note**: For line item creation, you cannot add a line item to a record in a terminal or terminated status.

To create a business process record or line item with manual auto-creation:

1) Open the record that will auto-create the record or line item.
2) Click the **Create** button next to the creator field.

   The field will display the words "Pending Creation."

   The system immediately auto-creates the destination record or line item. The new, auto-created record or line item will show a link to the source record that created it. You can click this link to view the source record.

   If you manually auto-create a line item, the system will validate the creation and tell you immediately if there are errors that caused the auto-creation to fail.

The Reset button

When you manually auto-create a record or line item, the button beside the creator field changes from Create to **Reset**. You can use this **Reset** button to break the link from this (the source) record to the new record/line item so that you can auto-create another record or line item manually. When you click the Reset button, it changes back to a **Create** button.

> **Note**: You can find the reasons for the auto-creation failures in the audit

log of the business process record. In addition, the system occasionally generates error codes for auto-creation failures, which can be used to troubleshoot the auto-creation failures.

Creating a BP Record in Document Manager

If you have permission to access the **Document Manager** grouping node, you can create a business process directly from the **Documents** functional sub-node. You can create the BP record by selecting or not selecting the files/folders that must be attached to the record. Additionally, the system supports auto-population of Document Manager properties for Document-Type BP records with and without folder structure.

To access this node:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Document Manager** and then select **Documents**.

Creating a record without selecting the files or folders that must be attached to the BP record

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Document Manager**, and then select **Documents**.
3) In the **Documents** log, click **Create** and select **Business Process**.
4) In the **New Record** window, select the business process type under **Select Business Process**.
5) Click **Create**.

The name of the project/shell (for the Documentation Manager in which the business process is being created) appears under **Business Process Origin**.

The **Select Business Process** field lists business processes that you have permission to access.

After you select a business process:

▶ For a single workflow setup, the workflow name appears under **Select Workflow**.
▶ For multiple workflows setups, the **Select Workflow** list lets you select a workflow setup for the new BP record from a list of applicable workflow setups.

> **Note:** The list of workflow setups that appears in list depends on whether you (user) have been designated as an assignee in the creation step.

Creating a record while selecting the files or folders that must be attached to the BP record

If you select files/folders and then create the BP record following the steps outlined earlier, the system adds the files/folders as attachments for the new BP record.

▶ If you select one or more files, the files are included in the Attachments tab.

▸ If you select one or more folder folders, then:

▸ For Document Manager business processes that do not support folder structure, the system displays an alert message and the documents from selected folders and sub-folders are attached without the folder structure.

▸ For Document Manager business processes that support folder structure, the system displays the folder structure.

Creating a BP Record from a Template

You can manually create BP records by copying a BP template, if you have created a business process template for a BP.

Creating a BP record from a template is similar to copying an existing BP record. Any values in any of the form fields on the template (either manually entered or auto-populated) will be copied to the new record. The line items, file attachments, and attachments to line items will also be copied; however, the other attached information, such as comments, linked records, and linked Mailbox, will not be copied to the new form.

> **Note**: The users who have been removed from a group, or the users who have been newly added to a group, will not be displayed in the Workflow page, when you create a BP record manually by way of a template.

To create a business process record from a business process template:

1) Go to the shell tab and open the business process log.
2) In the left Navigator, select a BP that you want to use.
3) In the BP log, click **Actions** (toolbar options).
4) Click **Create From Template** option (available for all Workflow type BPs, only) to open the template list (**<BP NAME> Template List**) log or page. This page displays a list of templates, if available. In this page, the right pane has the following tabs:

   ▸ **General** tab
   ▸ **Schedule** tab

   Simple-type Business Processes: The system *enables* the **Refresh auto-populated and calculated fields on record creation** checkbox option if you use the **Create From Template** option to create a template.

5) Click **Create** (toolbar options) and enter values for the following fields, in the **General** tab:

   ▸ **Name**
   ▸ **Description**
   ▸ **Workflow**
   ▸ **Copy Link Records**

   In the **General** tab, enter a name for the BP template (in the **Name** field) and select a workflow (from the **Workflow** field drop-down).

   If the BP has only one workflow, the system selects that workflow automatically.

If the BP has more than one workflow, a list of the workflows appears in the **Workflow** drop-down list field.

The **Cancel** option lets you abort creating the template, cancel the changes, and reload the previous template properties.

The **Create** option lets you save the template changes.

For information about the **Schedule** tab, see below for more information.

6) When finished, click **Create**. The new template will be displayed in the page.

7) Select the template from the list and click **Open** (by using the *gear menu* [🔧] or by double-clicking the template). The BP form opens (**Template - <BP NAME>**). The data is populated based on the template. You can modify the data or enter additional data, where allowed. After you are finished, you can:

8) Click **Save** to save the template.

9) When the BP is ready to move to the next step, click **Complete** to send the workflow to the next.

> **Note**: You can save the record by clicking **Save**, which saves a draft of the record but does not affect the template.

You can double-click the newly created template (or an existing template) to open it for viewing.

If you have created a business process template for a BP, you can manually create BP records by copying the template. For instructions on creating BP templates and scheduling BP creation, see *Creating BP Templates and Scheduling BP Creation* (on page 77).

The template list (**<BP NAME> Template List**) log or page contains the following toolbar options:

▶ **Create**
▶ **Find on Page**
▶ **Delete**

You can select (Ctrl+click) multiple templates and delete them at the same time.

The template list (**<BP NAME> Template List**) log or page contains the following columns:

▶ **Name**
▶ **Description**
▶ **Workflow**
▶ **Status**
▶ **Scheduled**
▶ **Creator**

If there are templates created for the BP, select a template and click **Open** (*gear menu* 🔧). The BP form opens. The data is populated based on the template. You can modify the data or enter additional data.

If there are no templates created for the BP, the "No Templates are available" message is displayed. In this case, you must create a template as described below:

▶ Double-click a template to open it for viewing.
▶ Click **Save** to save updates to a newly created template.

The options available for *gear menu* are context-sensitive, based on the status of the template. The following *gear menu* (⚙) options are available for the items in the template list (**<BP NAME> Template List**) log or page:

The following options are displayed when the template is in **Draft** status:

‣ Open
‣ Create Record
‣ Delete

The following options are displayed when the template is in **Complete** status:

‣ Open
‣ Create Record
‣ Delete

The following options are displayed when multiple templates, regardless of status, are selected:

‣ Delete

Scheduling a Run

Use the **Schedule** tab to schedule a run. A template can be set for a scheduled run only if it is marked as **Complete** (under **Status**). The fields in the **Schedule** tab are disabled until the template is marked as Complete. The following options are available in the **Schedule** tab:

▸ Schedule
   ‣ Enable scheduled record creation

> **Note:** You can schedule auto-creation of records when the template marked as **Complete** (under **Status**).

▸ Frequency
   ‣ Daily
   ‣ Weekly, end of day
   ‣ Monthly
   ‣ Quarterly
   ‣ Yearly
▸ Range of Recurrence
   ‣ No end date
   ‣ End by
▸ Additional Information
   ‣ Auto-email creator if scheduled creation fails

When the template is in **Complete** status, and user is setting up the schedule, the Schedule tab shows the following options:

▸ **Cancel**
▸ **Save**

When the template is in **Draft** status, after the Creation step, the Schedule tab shows the following options:

▶ **Cancel**
▶ **Save**

Under other conditions the following two options are not available:

▶ **Cancel**
▶ **Save**

By default, the first template is selected, and the details for the first template are displayed on the right pane.

In the creation step, no template will be highlighted on the left pane. After you save, the template is added to the template list, highlighted on the left pane, and the details are displayed on the right pane.

Template Status

Templates with Draft status

When you open a template that is in draft status, the system displays the following toolbar options in the upper-right section:

▶ **Complete**
▶ **Save**
▶ **Menu Options** (≡)
   Auto-create
   Export Line Item Template
   Print (**HTML** and **PDF**)
   Reload
   Help
     ▸ **[BP Name] Help**
   Close

When you finish drafting and click Complete, the system displays the **Workflow Action Details** window. In this window, you can enter all the workflow information and click **Save** when finished. When you click **Save**, the toolbar options change to:

▶ **Edit**
▶ **View Workflow**
▶ **Send**
▶ **Menu Options** (≡)

Templates with Complete status

When the template status is marked as **Complete**, the template turns into read-only mode. If you decide to edit a template marked as **Complete**, you can open the template and click **Edit**. This action changes the status of the template to **Draft**. In this case, the system checks to see if there is any scheduled auto-creation for the template.

If a schedule is detected, the system displays a Confirmation message. If you click **Yes**, the system changes the template status to **Draft** and stops the scheduled auto-creation for the template; however, the system retains the previously entered scheduled runs information.

Creating a record from a template with Complete status

When you select a completed template and click **Create Record** from the *gear menu* (⚙), the system opens the **Create New [BP name].** The fields in **Workflow [BP name] Details** window are populated with the workflow information that was stored at the time of drafting and subsequent completing of the template, and will open when you click **Send**. The toolbar options change to:

▸ **Send**
▸ **Save**
▸ **Menu Options** (☰)

If you click **Cancel** in the **Workflow [BP name] Details** window to work in the **Create New [BP name]** window to make necessary changes, or to review the record information, you must click **Send** to route the record to the next step. In these two scenarios:

▸ The **Workflow [BP name] Details** window opens, but the fields will not be populated with the workflow information that was stored at the time of drafting and subsequent completing of the template.
▸ You must re-enter the workflow details as the system treats this instance as a one-time creation.

Creating BP Templates and Scheduling BP Creation

You can create templates for project/shell-level and company-level workflow business processes. This allows:

▸ Easy creation of records for business processes that you use often or are recurring (for example, time sheets)
▸ Scheduling automatic creation of recurring BP records

This section discusses how to:

▸ Create and edit business process templates
▸ Schedule automatic business process record creation from the template

> **Note:** When you create BP records from a BP template, any values in any of the form fields on the template (either manually entered or auto-populated) will be copied to the new record. Line items, file

attachments, and attachments to line items will also be copied. Other attached information, such as comments, linked records, and linked Mailbox, will not be copied to the new form.

Creating a BP Template

You can create a template for any business process for which you have at least "view user records" permission.

> **Note**: Because draft option is not available for *non-workflow* business process records, and draft option is essential in storing a business record template, you can only create a template for a *workflow* business process record.

To create a template:

1) In **User** mode, open to the log containing the business process for which you want to create the template.
2) From the left Navigator, select the business process.
3) From the toolbar, click **Actions**, and select **Create From Template**. The Template List window for that business process opens. The window displays any templates that have been created for the selected BP.
4) Click the **Create** button.
5) Use the information in the table below to fill in the **General** tab in the right pane.

> **Note:** Although the Schedule tab is visible, it is disabled until you have changed the status to Complete. At this point, you can use this template to manually create BP records; however, if you want to schedule automatic creation, you must first change the template status to Complete.

6) Click **Create**.

   The system adds the template to the Template List with a status of Draft and opens the form as it would in the create step of the workflow. This form will be used as the template.
7) Enter any information into the template form that you want to include in the records that you create from it.
8) You can add line items as needed. You can also add file attachments, which will be attached when a record is created from the template. This includes attachments to the record itself and attachments to line items.

   You can also add linked records, linked Mailbox, and comments to the template, but these will not be included in the records created from this template.
9) Click the **Save** button at the top of the form.

The system saves the template in Draft mode, and the window remains open. You can use the template at this point to manually create BP records; however, if you want to schedule automatic creation, you must first change the template status to Complete (see the following procedure).

In this field:	Do this:
Name	Enter a name for the new template.
Description	Enter a description of what this template is used for.
Workflow	Select the workflow that should be used for the BPs that will use this template.
Copy Linked Records	Select the checkbox if you want to copy any linked records whenever a record is created from this template.

Changing Template Status (Draft and Complete)

Each template will either be in **Draft** mode or **Complete** mode. You can change the status of a template between the two statuses at any time. The template status controls whether a BP creation schedule can be defined.

If the template status is **Draft**, the template can be edited and used to manually create BP records. Required fields and assignee information can be left blank. Scheduled record creation cannot be performed.

If the template status is **Complete**, the **Schedule** tab in the right pane is activated and can be used to define and schedule automatic record creation. The form is no longer editable (unless changed back to **Draft**). Required fields and assignee information must be completed before the status can be changed to **Complete**.

To change the status of a business process template to Complete:

1) In **User** mode, navigate to the log of the business process for which to edit the template. Click the **Actions** menu and choose **Create from Template**. The Template List window opens.

2) Hover over a template, click the *gear menu* (⚙) and click **Open**. The template form opens.

3) Complete the BP form:
   ‣ Complete all required fields.
   ‣ Be sure the rest of the template form is filled out appropriately, including line items and attachments, if applicable. Remember that if you will be scheduling automatic record creation from this template, the information that you enter here will used for the creation step and sent to the first step in the workflow.

4) Click **Complete** when finished. A validation check will verify that all required fields are filled out.

5) After a successful validation check, the **Workflow Action Details** window will open.

   ‣ Select a workflow action for the first step in the workflow. If there is only one option, the **Workflow Actions** field will be auto-populated.

   ‣ Add users to the **To** and **CC** field.

When the status is **Complete**, the template form becomes view-only. If you have defined a record creation schedule in the **Schedule** tab, the schedule will be activated.

To change the status of a business process template to Draft:

1) In **User** mode, navigate to the log of the business process for which to edit the template. Click the **Actions** menu and choose **Create from Template**. The Template List window opens.

2) Open the template form.

3) Click **Edit**.

4) When the **Confirmation** message appears, click **Yes**.

In **Draft** mode, the template form becomes editable. Scheduled record creation is disabled until you change the status back to **Complete**.

Scheduling Automatic BP Record Creation Based on a Template

You can schedule automatic BP record creation runs that are based on a BP template. The templates must have a status of Complete before you can define and activate the schedule.

For information on manual creation from a BP template, see *Creating a BP Record from a Template* (on page 73).

> **Note:** Business process creation cannot be scheduled from a template in projects/shells that have the View-Only or Inactive status.

To define a BP creation schedule:

1) In **User** mode, navigate to the log of the business process for which to edit the template.

2) Click the **Actions** menu and choose **Create From Template**. The Template List window opens.

3) Select a template from the list to use for the automatically created BP records.

4) In the right pane, click the **Schedule** tab.

5) Complete the Schedule tab as described in the following section.

6) Click **Save**. The schedule is active if the template status is Complete.

In this field	Do this
Enable scheduled record creation	Select this checkbox if you want to enable automatic record creation based on the schedule defined below.
Frequency	The frequency determines how often the

In this field	Do this
	new records are created from the template. The options are: ▶ Daily ▶ Weekly (select the day of the week) ▶ Monthly (select the day of the month) ▶ Quarterly (runs on the last day of the calendar quarter) ▶ Yearly (runs on the last day of the calendar year) All scheduled record creation is performed at 11:59:59 PM (PST).
Range of Recurrence	Choose one of the options: ▶ No end date (runs until changed or schedule is disabled) ▶ End by (select an end date)
Auto-email creator if scheduled creation fails	Select this option if you want the template owner or creator to receive email notification if the scheduled creation fails. The email will contain location information so that the recipient can see where the auto-creation originated, and where it failed.

Editing or Deleting a BP Template

Users with view permission to a business process log will be able to view any associated templates. The template form and properties can be edited by the owner or creator and by users with Modify Record Ownership.

Only the owner or creator of a template can delete it.

To edit a template:

1) In **User** mode, navigate to the log of the business process for which to edit the template. Click the **Actions** menu and choose **Create from Template**. The Template List window opens.
2) Open the template form.
3) If the template has a **Complete** status, click **Edit**.
4) The fields, line items, file attachments, and other data are editable. You cannot change the workflow after the template has been created.

To delete a template:

In the Template List window, select the template click **Delete** from the toolbar, or hover over the template and click **Delete** in the *gear menu (* ⚙ *)*. Click **Yes** to confirm.

Editing or Canceling a BP Template Schedule

To edit a business process schedule:

You can edit the schedule information in the Schedule tab at any time. The Schedule tab is active only when the BP status is Complete. After saving changes, the new schedule will be activated immediately.

To pause or cancel scheduled business process creation:

Do one of the following to deactivate scheduled BP creation:

▶ Open the template and select the **Schedule** tab. Deselect the **Enable scheduled record creation** checkbox. To reactivate the schedule, select the checkbox.

▶ Open the template form and change the status to Draft (open the Complete template and click **Edit**). As long as the template remains in Draft mode, the BP schedule will be inactive. You can still manually create BP records from a draft template. To reactivate the schedule, change the status back to Complete.

Failed Scheduled BP Record Creation

If a scheduled BP creation fails and the checkbox enabling notification has been selected on the Schedule tab of the template Properties window, email notification is sent to the template owner. The email contains location information so that the recipient can see where the auto-creation originated and where it failed. Following are conditions under which scheduled record creation can fail:

▶ The To field is empty. This is possible if the assignee user becomes inactive after the schedule is created or if a group is empty.

▶ CBS code is invalid, which can happen if the CBS code becomes inactive after selecting in the template.

▶ If the rules engine validation fails.

▶ For payment applications, if the associated SOV is locked either by the payment application record in routing, or by a change commit with a negative line item value. See *Payment Application Business Processes* (on page 225) for details.

Using CSV and RESTful Services

You can use CSV and RESTful Services to create a BP Record or Line Item with Line Item Data Picker. When you export your CSV template, the Line Item Data Picker is shown and the direction is set as an input or both.

> **Note:** You cannot modify the BP Data Picker alone if it has an associated Line Item Data Picker value. You must provide both the BP

Data Picker value and BP Line Item Data Picker value to modify any one of them.

When you use Bulk Create or Bulk Update, you start by exporting the BP design structure to a Microsoft Excel or CSV file and then populating the required fields. If you leave a Data Picker Data Element (DE) field blank that is configured to Auto Populate, the system completes the field when you run a Bulk Create; however, it does not complete the field when you run a Bulk Update. To reduce confusion and maintain consistency for both Bulk Create and Bulk Update, the system uses the Excel or CSV file to populate the Data Picker field if the field is excluded from the Integration Form for the BP design.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

When you create workflow BP records through a REST service, the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input request is ignored. Also, when you update workflow BP records through a REST service, you cannot change the Due Date.

Validations Performed on Line Item Data Picker Values

When you create a record or line items using a CSV import, if a CSV import or a REST input request has Line Item Data Picker values, the following validations are performed to check if:

▸ the associated data picker has a record selected

  If a record is not selected, the system displays an error message.

▸ the record selected verifies that the line item belongs to the selected record

  If not verified, the system displays an error message.

▸ the line item exists

  If it does, the system runs the query conditions defined for the Line Item Data Picker.

  If it does not, the system displays an error message.

▸ Duplicate work packages are included. Work package names are case-sensitive.

The system identifies specific erroneous records or line items for the following scenarios:

▸ If form validation rule fails
▸ Data elements in the upper form. For example, data elements that are not unique.

> **Note:** Data elements with leading and trailing spaces are ignored. For example, data elements "EAM" and "EAM ", the latter containing a

trailing space, are treated as identical.

▶ If records within an input file or request contains same unique DE value
▶ Multiple records or line items exist for a specific value

The above Line Item Data Pickers validations are also supported in the following REST services:

▶ Get BP Record List
▶ Get BP Record
▶ Get BP Record with attachments
▶ Create BP Record
▶ Create BP Record with lineitems
▶ Update BP Record

> **Note:** You cannot create or update a non-workflow BP record for which the input request file contains a status value that is *Inactive*. If you submit a request that contains an *Inactive* status, the system sends an error message through email notification.

Validations Performed on User Picker Values

When you create a record or line items using a CSV import, REST services, or Bulk Update, if the CSV import or input request has User Picker values, the following checks are performed:

▶ BP records will be created successfully:
  ▸ If a single user with a specific First Name and Last Name exists in a project with a status of **Active**/**On-hold**.
  ▸ If multiple users exist with identical First Name and Last Name, but only one user's status is **Active**/**On-hold** while all other users have an **Inactive** status.
▶ BP records will not be created if multiple users exist with identical First Name and Last Name, with a status of **Active**/**On-hold**/**Inactive**.

Using Microsoft Excel Template to Create BP Records and BP Line Items in Bulk

Creating BP records, in bulk, through Microsoft Excel templates is available for all BPs that allow bulk creation of records and line items.

A Microsoft Excel file or template supports formulas, special characters, and it has multiple sheets.

> **Notes**:
> - A CSV file or template does not support formulas or special characters, and it does not have multiple sheets (click **Actions**, and select **Export CSV Template**).
> - When you use Bulk Create or Bulk Update, you start by exporting the BP design structure to a Microsoft Excel or CSV file and then

populating the required fields. If you leave a Data Picker Data Element (DE) field blank that is configured to Auto Populate, the system completes the field when you run a Bulk Create; however, it does not complete the field when you run a Bulk Update. To reduce confusion and maintain consistency for both Bulk Create and Bulk Update, the system uses the Excel or CSV file to populate the Data Picker field if the field is excluded from the Integration Form for the BP design.

When you click **Actions**, you can click the **Export Microsoft Excel Template** option to create a single BP record or multiple BP records (bulk) that contain formulas, special characters, and multiple sheets.

> **Note**: This option will be seen for all users who have the **View** access to the log.

For creating Line Items for a single BP record or multiple BP records (bulk) that contain formulas, special characters, and multiple sheets, you can click the **Menu Options** icon (available for BPs that support line item export) and click **Export Line Item Template**.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

The supported Microsoft Excel file formats are the Excel workbooks having the ".xlsx" and ".xlsm" extensions.

> **Note**: The Strict Open XML Spreadsheets having ".xlsx" extension is not supported.

The supported Microsoft Excel versions are Excel 2010 (v14.0) and later.

The supported Microsoft Excel functions are: `ABS, ACOS, ACOSH, ADDRESS, AND, AREAS, ASIN, ASINH, ATAN, ATAN2, ATANH, AVEDEV, AVERAGE, BIN2DEC, CEILING, CHAR, CHOOSE, CLEAN, CODE, COLUMN, COLUMNS, COMBIN, COMPLEX, CONCATENATE, COS, COSH, COUNT, COUNTA, COUNTBLANK, COUNTIF, COUNTIFS, DATE, DAY, DAYS360, DEC2BIN, DEC2HEX, DEGREES, DELTA, DEVSQ, DGET, DMAX, DMIN, DOLLAR, DSUM, EDATE, EOMONTH, ERROR.TYPE, EVEN, EXACT, EXP, FACT, FACTDOUBLE, FALSE, FIND, FIXED, FLOOR, FREQUENCY, FV, GEOMEAN, HEX2DEC, HLOOKUP, HOUR, HYPERLINK, IF, IFERROR, IMAGINARY, IMREAL, INDEX, INDIRECT, INT, INTERCEPT, IPMT, IRR, ISBLANK, ISERR, ISERROR, ISEVEN, ISLOGICAL, ISNA, ISNONTEXT, ISNUMBER, ISODD, ISREF, ISTEXT, LARGE, LEFT, LEN, LN, LOG, LOG10, LOOKUP, LOWER, MATCH, MAX, MAXA, MDETERM, MEDIAN, MID, MIN, MINA, MINUTE, MINVERSE, MIRR, MMULT, MOD, MODE, MONTH, MROUND, NA, NETWORKDAYS, NOT, NOW, NPER, NPV, OCT2DEC, ODD, OFFSET, OR, PERCENTILE, PI, PMT, POISSON, POWER, PPMT, PRODUCT, PROPER, PV, QUOTIENT, RADIANS, RAND, RANDBETWEEN, RANK, RATE, REPLACE, REPT, RIGHT, ROMAN, ROUND, ROUNDDOWN, ROUNDUP, ROW, ROWS, SEARCH, SECOND, SIGN, SIN, SINH, SLOPE, SMALL, SQRT, STDEV, SUBSTITUTE, SUBTOTAL, SUM, SUMIF, SUMIFS, SUMPRODUCT, SUMSQ, SUMX2MY2, SUMX2PY2, SUMXMY2, T, TAN, TANH, TEXT, TIME, TODAY, TRANSPOSE, TREND, TRIM, TRUE, TRUNC, UPPER, VALUE, VAR, VARP, VLOOKUP, WEEKDAY, WEEKNUM, WORKDAY, YEAR, YEARFRAC.`

The following topics explain how to use Microsoft Excel create a single BP record or multiple BP records (bulk) and line items that contain formulas, special characters, and multiple sheets.

Microsoft Excel File Format for Bulk Update Export/Import Process

The following applies to all business processes where BP records are exported using the **Bulk Update** option to a Microsoft Excel file (.xlsx). For more information on how to use bulk update, see *Exporting BP Records Using Bulk Update From Business Process Log Node* (on page 183).

> **Note:** Bulk Update is not currently supported for General Spends Classification of Cost BPs with Line item of CBS Code (both workflow and non-workflow) if breakdown rows exist in the referenced Schedule of Values (SOV).

When you select BPs using the **Bulk Update** menu options, the exported Excel file is saved using the following file formats:

▶ For business processes containing only Main Form data, the file is saved in the default format: *<BP Name>_MainForm.xlsx*. For example, *Warranty_MainForm.xlsx*.

▶ For business processes containing Main Form data and line item data, the file is saved in the default format: *<BP Name>_MainForm_LineItems.xlsx*. For example, *Warranty_MainForm_LineItems.xlsx*.

The exported/imported Excel file contains the following worksheets/tabs:

Instructions Worksheet

The **Instructions** worksheet is generated automatically. Depending on the type of business processes included in the Excel file, this worksheet describes how to use the Excel file to enter or update BP records and line item data.

Main Form Worksheet

The **Main Form** worksheet is generated automatically as the second worksheet in the Excel file. It is recommended to not rename or reorder this worksheet. The content of this worksheet is dependent on the types of BPs included in the export/import. It contains the Unifier Essentials data needed for updating existing BP records, and line items.

▶ Each BP record is identified by read-only fields in the following order: **Record ID** and **Record Number.**

▶ The following fields/data elements are also read-only: **Record Status**, **Creator, Creation Date, Currency ID**, **Due Date**, **Status in WF**, **BP**, **Formula Data Elements** and data elements that are set to auto-populate from the sum of all line items data elements from the Integration Validation Form.

▶ The line item tab order is identical to the order in the selected records.

▶ Custom date formats are honored.

▶ The data elements with direction set as **Input** or **Both** are shown as fields in the exported Excel file.

▶ The name of the worksheet is translated according to the user's language preference.

Additional Worksheets for each Line Item Tab

Each Line Item tab worksheet displays a list of line item records in the following format:

▶ The line item records and the data elements of each tab are listed in the same order as displayed in the user interface.

▶ Each line item record is identified by read-only fields in the following order: **Record ID**, **Line Item ID**, **Record number**, and **Line No**. These fields cannot be renamed, reordered, duplicated, or removed from the file.

▶ The formula data elements and auto-populated data elements are read-only fields.

▶ Worksheet names do not support the following special characters: \ / ? * : [or]

Codes and Descriptions Worksheet

The fields displayed in the **Codes and Descriptions** worksheet depends on the cost sheet. At a minimum, these include:

▶ **Cost Code**: Displays cost codes available in the project cost sheet. It includes active cost codes and inactive cost codes with the entire hierarchy.

▶ **Cost Item**: Displays the name of the item associated with the cost code.

▶ **Status**: The status of the cost code at the time of the export. Valid values include: **Active**, and **Inactive**.

SOV Line Items Worksheet

An **SOV Line Items** worksheet, if generated, displays the following fields:

▶ **refiid** (label of field): A list of contracts associated with the records in the **Line Item** worksheet.

▶ **Ref** (label of **uuu_sovlinum** field): A list of all reference codes from the SOV sheet of the selected contract.

▶ **CBS Code**: A range of CBS codes associated with the contract.

▶ **Commit Short Description**: A short description of each commit.

Microsoft Excel File Format for Bulk Creating BP Records in the Master Log

As a company-level user or partner user, you can create and upload a batch of business process (BP) records across projects/shells from a Microsoft Excel spreadsheet (.xlsx or .xlsm) if you have:

▶ Access to the **Master Log** node
▶ **Allow Bulk Creation** permission

   The **Allow Bulk Creation** permission, although visible for all BPs, is supported for only:

   ▶ Simple BPs such as Action items, Project Note, or Field Observations
   ▶ Generic Line Item BPs such as Daily Reports or Warranty
   ▶ Generic Cost BPs (Line item with CBS Code, Line item with Fund Code, Line item with CBS and Fund Code, and Line item with CBS and WBS Code)
   ▶ Transfer Cost BPs (Line item with CBS Code, Line item with Fund Code, Line item with CBS and Fund Code, and Line item with CBS and WBS Code)
   ▶ Base Commit (Line item with CBS Code - Create SOV of General Spends and Payment Applications)
   ▶ Change Commit BPs (Line item with CBS Code - Update SOV of General Spends and Payment Applications)

It is recommended that you use this process to create several records in bulk across projects. It is a scheduled high-priority background job and the job can be processed based on other background jobs in the queue.

> **Note**:Do not use this process to update *existing* BP records.

Business Process (BP) records that you plan to import into the **Master Log** node must adhere to a specific file format. You can download the Excel file that is to be used as template for creating the BP records.

▶ For Simple BPs containing only Main Form data, such as Action Items, Project Note, or Field Observations, the Excel file is named in the default format, *<BP Name>_MainForm.xlsx*. For example, *Warranty_MainForm.xlsx*.
▶ For business processes containing Main Form data and line item data, such as Daily Reports, or Warranty, the spreadsheet is named in the default format, *<BP Name>_MainForm_LineItems.xlsx*. For example, *Warranty_MainForm_LineItems.xlsx*.

The exported/imported Excel file contains the following worksheets/tabs.

Instructions Worksheet

The **Instructions** worksheet is generated automatically as the first worksheet in the Excel file. Depending on the type of business processes included in the spreadsheet, the **Instructions** worksheet describes how to use the spreadsheet to enter BP records and line item data.

Main Form Worksheet

The **Main Form** worksheet is generated automatically as the second worksheet in the Excel file. It contains the Unifier Essentials data needed for updating existing BP records and line items.

▶ For each BP record, the following fixed columns display as the first and second columns:

   ▸ **Shell Number**: A valid active project/shell number. Refer to the *Shell Details worksheet* (see "*Microsoft Excel File Format of Shell Details File*" on page 90) to view a list of active projects/shells across different hierarchies.

   ▸ **Record Sequence No.**: A sequence no that uniquely identifies a record for that project/shell.

   Each BP record is identified by the unique combination of the **Shell Number** and **Record Sequence No**.

▶ Subsequent columns display the data elements based on the BP design of the **Upper Integration** tab.

▶ Mandatory fields are marked by an asterisk (*).

> **Note**: Do not rename or reorder this worksheet. The content of this worksheet is dependent on the BP selected for the bulk creation import process.

<Line Item Tab Name> Worksheets

One or more Line Item tab worksheets is automatically generated depending on the BP design. Use the Line Item tab worksheets to create line items for BP records specified on the **Main Form** worksheet.

▶ The following columns display initially in each line item tab:

   ▸ **Shell Number**: A valid active project/shell number. It must be identical to a shell number in the **Main Form** tab. Refer to the Shell Details Excel spreadsheet below to view a list of active projects/shells across different hierarchies.

   ▸ **Record Sequence No.**: A sequence number that uniquely identifies a record for that project/shell. It must be identical to the **Record Sequence No.** field value in the **Main Form** tab.

   ▸ **Line No.**: (Optional) A sequence number to uniquely identify the lines for that tab. If a value is not specified, the **Shell Number** and **Record Sequence No.** are used to uniquely identify a record to add line items.

   Each line item is identified by the unique combination of values in the **Shell Number** and **Record Sequence No.** fields.

▶ Subsequent columns display data elements depending on the BP design.

▶ Additional pickers are available based on the business process type. For more information, see *Available Pickers For Business Process Types* (on page 90).

▶ The following special characters are not supported: \ / ? * : [or]

> **Note**: Do not rename or reorder this worksheet. The content of this worksheet is dependent on the BP selected for the bulk creation import process.

Microsoft Excel File Format of Shell Details File

The Shell Details Excel file contains information of all projects/shells with the following statuses:

- ▶ **Active**
- ▶ **Inactive**
- ▶ **On-Hold**
- ▶ **View-Only**

The following information is displayed for each project/shell:

- ▶ **Shell Number**: A valid active project/shell number.
- ▶ **Shell Name**: The name associated with the active project/shell number.

Use this Excel file to copy and include the above project/shell information while creating BP records across projects/shells in the **Main Form** worksheet and the **<Line Item Tab Name>** worksheets of the Excel file you will import into Unifier Essentials.

> **Note**: The project/shell numbers in the Excel file that will be imported into Unifier Essentials must be identical to those listed in the Shell Details Excel file.

To download the Shell Details Excel file, see *Creating the Excel File for Bulk Creating BP Records* (on page 53).

Available Pickers For Business Process Types

The following pickers are available for each business process type in the Line Item tab worksheet:

Business Process Type	Available Pickers
Cost BP(Lineitem with CBS code) -Generic or Transfer	▶ CBS Picker (It can be in Main Form and all line item tabs) ▶ Auto-populate elements from CBS picker ▶ Work package Picker ▶ BPO Picker ▶ BPO line item picker
Cost BP(Lineitem with Fund Code) - Generic or Transfer	▶ Fund Picker ▶ Auto-populate elements from Fund picker
Cost BP(Lineitem with Fund and CBS Code) - Generic or Transfer	▶ Fund Picker ▶ Auto-populate elements from Fund picker ▶ CBS Picker ▶ Auto-populate elements from CBS picker ▶ Work package Picker

Business Process Type	Available Pickers
Cost BP(Lineitem with CBS and WBS Code) - Generic or Transfer	▸ WBS Picker ▸ Auto-populate elements from WBS picker ▸ CBS Picker ▸ Auto-populate elements from CBS picker ▸ Work package Picker
Cost BP(Line item with CBS Code) - Base Commit of General Spends or Pay app SOV	▸ CBS Picker (It can be in Main Form and all line item tabs) ▸ Auto-populate elements from CBS picker ▸ Work package Picker ▸ BPO Picker ▸ BPO line item picker
Cost BP(Line item with CBS Code) - Change Commit of General Spends or Pay app SOV	▸ CBS Picker (It can be in Main Form and all line item tabs) ▸ Auto-populate elements from CBS picker ▸ Work package Picker ▸ BPO Picker ▸ BPO line item picker ▸ Reference ▸ Auto-populate from Reference

Viewing the Import Audit Log

1) Navigate to:
   - (For BPs at the company level) Go to the **Company Workspace** tab and switch to **User** mode. In the left Navigator, select **Company Logs**, and then select the applicable BP sub-node. You can also access these BPs from the **Company Lists** and **Pickers** grouping nodes.
   - (For BPs at the project or shell level) Go to the shell tab and switch to **User** mode. In the left Navigator, select the applicable Navigation node, and then select the applicable BP sub-node.

   The system expands the navigator to show the list of BPs.
2) From the toolbar, click **Actions**, and then select **View Import Audit Log**.

   The Import Audit Log for the selected BP type opens. You can view information pertaining to the import process that created the BP, such as the name of the CSV or Microsoft Excel file that was imported, the date that the BP was created and completed, the name of the user who performed the import, and so on.

Filling Out a Business Process Form

To fill out a Business Process (BP) form:

1) Complete the Upper form. Fields marked with a red asterisk (*) require an entry.

2) Add line items, if applicable.

   ‣ If this is a cost or line item-type BP add line items as necessary.

   ‣ If this is a Document-type BP, such as a Document Approval or Submittal, attach any documents to the form.

3) Add additional information, if applicable.

   ‣ Comments

   ‣ Attachments to Comments

4) If this is a *non-workflow* BP, click **Save** to save your changes and create a permanent record, and then click **Submit** to render the record in view-only mode.

   The system uses statuses to track the state of a business process record and any line items it may contain. For example, a Pending status generally means people are still working with the record, while a Closed status suggests the record is complete. Records in Closed status are typically marked as Terminal, meaning the record has reached a point where no further input is either required or desired. You can still access a non-workflow record in a terminal status if the record is in **Edit** mode. However, if you click **Submit** when the record is in a terminal status the record becomes permanently read-only and un-editable.

5) If this is a *workflow* BP, complete the following steps:

   a. Click the **Send** button. At the **Creation** step, sending the form to the next step in the workflow creates a permanent record.

      If the workflow is not yet complete, the form will be forwarded to the next step in the workflow. If the workflow is complete (that is, your task was the last step of the workflow), the record will appear as complete in the business process log.

   b. After you send the form, the **Workflow Action Details** window will open. Select an action from the **Workflow Actions** drop-down list. Action selections depend on the BP design, for example, if this is a review step, an action that you may be able to select is "Submit for Approval." Selecting a **Workflow Action** activates the other fields of the **Action Details**. If there is only one possible workflow action for a step, the action is auto-populated in the field.

   c. In **Action Details**, designate assignees for the next step; that is, the users and groups who will receive the record as a task on the next step in the workflow. If the next step is the **End** step, the **To** field will be preassigned.

      Use the **Workflow Progress** hyperlink, in the **Action Details** section of a *Workflow BP*, to open the **Workflow Progress** window and view the workflow progress status.

      After you accept the task, the form becomes editable. On the editable, or "action," version of a form (belonging to an accepted task), you can see the view form of the business process (**Task Details**). In the view form, you can view the Workflow progress status by clicking on the **Workflow Progress** tab in the right pane. This option is available for Workflow records of both company-level and project-level BPs.

Saving a Draft of a Workflow Business Process

At any time while filling out a business process form (whether creating one or responding to a task), you can save your work as a draft and return to it later. The record remains in your Drafts log until you send it.

> **Note:** Saving a draft is only applicable to Workflow type of BP records. For non-workflow type of BPs, saving a record results in creation of a record and not a draft.

To save a draft copy of the workflow business process form:

From the File menu of an open business record, click **Save**. A draft copy of the form with your edits so far is saved in your **Drafts** log.

To view your drafts:

Navigate to the Drafts log by doing one of the following:

▸ Click **Drafts** under the Home tab. The Drafts log lists all draft business processes.
▸ Go to your project or the Company Workspace and navigate to **Drafts** under the **Collaboration** grouping node.

> **Notes:**
> - Drafts for View-Only and Inactive projects/shells are not listed in the Drafts log.
> - The system displays the **Tasks**, **Notifications**, and **Drafts** functional nodes, in the respective Company Workspace and Project/Shell, based on the deployment of your **User** mode navigators.

To open a draft:

Click the *gear menu* (⚙) next to a record from the Drafts log and click **Open**.

To delete a draft:

Click the *gear menu* (⚙) next to a record from the Drafts log and click **Delete**. The draft form will be permanently deleted. A draft is automatically deleted from the log after the record has been sent or otherwise completed.

Accessing Custom Business Process Help PDF File

A Help file is available that provides you information about a specific business process. This file is provided as a PDF file, which can be read with Adobe Acrobat Reader. The file is available under the Help menu for the applicable business process log or form.

Adding and Managing Line Items

Detailed information, such as transactions, can be entered as line items on BP records, if they have been designed to accommodate documents that are attached as line items.

You can edit or delete line items on a BP form if the form is still editable; that is, before it reaches its terminal status (for example, approved). If you add a new line item in any step (other than the creation step), you can modify the line item until the BP is sent to the next step. The line item status will always default to the default line item status specified in the design. Users with permission can change the status if modification to the line item status is allowed in that step.

You can add attachments and comments to line items. In addition, you can filter, copy, and consolidate line items.

You cannot change the transaction currency value after you create a BP and send it to the next step in the workflow.

Notes:

- Document and Line Item BPs might include line item status control, which lets users choose a status for individual line items and control whether they can be modified.
- The system supports auto-population of Document Manager properties for line items in Document-Type BP records with and without folder structure.

If you select a different currency for transactions, the system correctly uses the exchange rates to calculate subsequent information. However, when you view the main form for the approved BP record, the system currently displays the Project Currency Amount field using the applicable symbol for Transaction Currency instead of the symbol for the Project Currency. For example, if the Base Currency for the project is US Dollars ($) and you select China Yuan Renminbi for the Transaction Currency, the system incorrectly displays the Project Currency Amount using the Yuan symbol (¥) on the main form. If you view the Project Currency by selecting it from View Currency on the Line Item tab, the correct symbol is shown.

Adding Line Items

To add a line item:

1) In a business process form, select a line item tab and click **Add**. The right pane displays the Line Item Details.
2) Complete the Line Item Details section. You can expand and collapse these information blocks.

3) If your line item supports attachments, you can add attachments. The Attachments and Linked Records tabs are seen only after you save the line item. For more information, see **Adding Attachments**.

4) When done, select from one of the following options:

   ▸ **Save & Close:** To save the information that you have entered and close the window.
   ▸ **Save & Add New:** To save information that you have entered and refresh the window so that you can add another line item.
   ▸ **Cancel:** To discard changes that you have made and close the window.

Editing and Deleting Line Items

You can edit the line items on a BP record only if the design permits modification of line items and if the record has not reached the terminal step.

To edit line items:

1) Select the line item tab.
2) From the left pane, select a line item. The line item details are displayed on the right pane.
3) Update the line items.
4) When done, select from one of the following options:

   ▸ **Save:** To save the information that you have entered.
   ▸ **Save & Add New:** To save information that you have entered and refresh the window so that you can add another line item.
   ▸ **Cancel:** To discard changes that you have made and close the window.

To delete line items:

1) Select the line item tab.
2) From the left pane, select a line item.
3) From the *gear menu* (⚙), select **Remove**.

When you edit a line item grid, the row counts (at the bottom left corner of the grid) capture the following actions:

▸ **New:** The count will depend upon the Add action and the Copy action on the line item. The number gets updated when you add new line items.
▸ **Deleted:** The count will depend on the Remove action on the line item.

> **Note**: These counts will not appear when the grid is in View only mode.

To edit an image field on a line item grid:

An image field on the grid displays only an image icon; however, you can see a thumbnail of the image if you double-click the icon. If you want to change or remove the image, double-click the cell anywhere but on the icon. The system displays a menu, from which you can choose to upload a different image or remove the image.

To edit a hyperlink field on a line item grid:

If you want to change a hyperlink, double-click the cell anywhere but on the hyperlink. The system displays the Hyperlink window, where you can change or remove the link.

To edit a checkbox field on a line item grid:

When the field is opened in **Grid View**, it is rendered as a box that you can select or deselect.

If the list of line items is opened in **Form View**, all the line items for a given tab are displayed. Similar to **Grid View**, the checkbox in the line item list is also rendered as a disabled box with the value.

The **Find on Page** option in the grid renders the checkbox field as a text box that lets you type **Yes** or **No**. If you type **Yes**, the system selects the checkbox and the line item associated with the checkbox is displayed along with the selected checkbox. If you type **No**, the system does not select the checkbox and the line item associated with the checkbox is displayed along with the deselected checkbox.

This table lists the sub-types of business processes and locations that allow the edit of line items on cost business processes:

Sub-Type	Shell (CBS Code)	Company Workspace	Edit Line Item
Line Item with CBS Code	Yes	No	Yes
Line Item with Both Fund Code and CBS Code	Yes	No	Yes
Line Item with Fund Code	Yes	No	Yes
Commit at Company Level	No	Yes	No

Copy Line Items

You can create a line item by copying an existing line item. You can choose to include any attachments that are on the source line item; however, any links the line item has to other records will not be copied.

To copy line items from the same form:

1) In a business process form, select a line item tab.
2) Select a line item to copy, click ⚙ , and then select **Copy**.
3) From the **Line Item Details** tab on the right pane, complete all the required fields.
4) Click **Save**.

Filtering the Line Item List

Some business processes can include many line items, and filtering the list of line items can make the form easier to use. To narrow the list of line items you see, you must use the **Search** function. The **Search** function will search for and display specific line items according to the criteria you specify.

To filter the line item list:

1) Open the BP form and click the **Search** icon (🔍) in the line item tab.

   The window shows fields from the line item list, which you can use to narrow the list of line items you see.

   Each field shows an *operator*, such as "contains" or "equals," which you can use to specify more precisely which line items you want to see on the list.

   You can narrow the list of line items to show only certain class levels or cost categories.

2) To specify search criteria, first choose the operator you want to use on the field, such as "equals," "does not contain," or "is empty".

3) Enter the value the field should contain, or click the **Select** button and select the value from the list that appears.

4) Click **Apply**.

   The system displays all the line items that met the search criteria you entered.

   If you choose to, you can cancel the filtering action by clicking **[Cancel Search]**, or by clicking **Clear** and then **Apply** in the Search window**. The system will restore the list of line items to its unfiltered state.

The total amount displayed at the bottom of the screen lets you select:

▸ **Total Amount**
▸ **Filtered Total Amount**

Total Amount is defined as: Sum of the "Amount" field from across all the line items.

Filtered Total Amount is defined as: Sum of the "Amount" field from the line items which are the result of the Search criteria.

When a Search is active, the option that you select from the drop-down will be the "Filtered Total Amount."

When the Search is canceled, the system will default the option back to Total Amount. At any given point of time, you will be able to toggle between the two options.

Example

Filtered Total Amount

Line #	Spend Category	Amount
001	Labor	$100
002	Materials	$200
003	Labor	$300

If the Search parameter is set to "Spend Category = Labor," then after applying of the filter:

Total Amount = $600.00; (Option selected); Filtered Total Amount = $400.00

If the Search parameter is set to "Spend Category = Agreements," then after applying of the filter:

Total Amount = $600.00; (Option selected); Filtered Total Amount = $600.00

If the user cancels the Search, then:

Total Amount (Option selected) = $600.00; Filtered Total Amount = $600.00

> **Note:** There is no page total. The user has the option to select between the above two mentioned totals.

Line Item Consolidation

Business processes might accommodate line item consolidation: the ability to select individual line items from one or more BP records (the source BPs) and copy them into a new record (the destination BP). The selected line items can be from the same BP type, or they can be from different types, if they are compatible. The source and destination BPs must be at the same level (both at company level or both at project/shell level). File attachments can also be copied. For example, this functionality can be used to consolidate specific line items from multiple change requests submitted over a period into a single change order.

This functionality is built into business processes (BPs) through the design, which includes specifying which BPs can be used for the source and destination. Also, the ability to filter the business process records that can be consolidated (by status) can be added. This lets you filter the records you see in the list to consolidate by the record status, allowing you, for example, to exclude records that have the status of Pending or Rejected.

> **Note:** For some BPs, Line Items can be edited after consolidation, if your administrator has enabled it by deselecting the **Prevent consolidating the same line item across multiple records** checkbox.

There are some restrictions when consolidating line items from different BP types.

The top pane of the Line Item Consolidation page is used to select BPs and records, and the bottom pane is used to select the line items. Pagination in the top and bottom panes is seen only if the number of records and line items (in both available and selected panes) exceeds 1000 and 200 respectively. You can expand and collapse the top and bottom panes.

Top Pane Toolbar Options

Toolbar Options	Description
Select Business Process	This drop-down menu lists all BPs that

Toolbar Options	Description
	allow consolidations.
View	This drop-down menu is context-sensitive based on the selected BP.
Search	Enables users to search for specific line items. Search parameters seen here are based on the Find parameters set for the line item list. Search is performed on the database and works across all pages.
Find on Page	Enables users to find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.
Consolidate from other locations	The Shell Picker window is displayed. Select shell.

Bottom Pane Toolbar Options

Toolbar Options	Description
Select Tab	For a non-workflow BP, displays the line item tabs visible in the form. For a workflow BP, which might contain multiple forms, displays the line items tabs for the end form of the workflow. Select a tab.
Group By	Group line items by column header. This drop-down menu lists all log columns for the selected log view of the BP. By default, the <record_no label> is selected.
Search	Enables users to search for specific line items. Search parameters seen here will be based on the Find parameters set for the line item list. Search criteria defined for each for each tab's log layout will appear as search parameters. Search will be a database search and will work across all the pages.
Find on Page	Enables users to find items on the displayed page. When you click this option, the system inserts a row that lets you enter filter parameters.
Include Attachments	This option will be checked by default. When this option is checked, attachments

	if any existing in the line items will get copied over.

To consolidate line items:

1) Select a line item tab.
2) From the **Actions** menu, select **Consolidate Line Items**.
3) From the **Select Business Process** drop-down top menu, select a BP.
4) Select one or more BP records in the **Records from All Locations** section.
5) From the **Available Line Item List** pane, select the line item tab.
6) Select the line items and click the arrows to move it to the Selected line Items pane.
7) Click **Done**.

Additional Information:

▸ If you open a record from the shell and try to consolidate line items, you will see the shell picker (BP location picker).
▸ If you are opening the record at the company level, when you try to consolidate line items, you will not be able to see the BP location picker.
▸ If data picker is configured for a BP, line item consolidation displays records across all projects/shells. This is applicable for a source BP that is associated with a project/shell.
▸ If there is a source BP that is associated with a data picker, the system hides the shell location picker.
▸ If the records are displayed based on data picker configuration for a shell, the "Records from [Shell Name]" label changes to "Records from All Locations" label.

You can consolidate line items that have Line Item Data Pickers. While copying, the system runs the query condition defined for the Line Item Data Picker, under the destination business process configuration.

▸ If the query condition does not return the value that is getting copied, the Line Item Data Picker value will not be copied over.
▸ If the query conditions are met, only the Line Item Data Picker value will be copied in to destination line item and any other auto-population based on this picker will be populated.

If in the destination BP Line Item Data Picker the tab is hidden, and you are copying line items from another BP record where the Line Item Data Picker has that tab line item selected, the line item will be copied without the picker value.

The Line Item Data Picker value from the source line items cannot be copied in to the destination if in the destination the record BP Data Picker has a different record or no record selected.

Grouping Line Items

If the BP design supports the adding or copying of line items, you can also choose to group line items into meaningful categories. You can select one or more line items to add to a group and each group displays the line items under it. The groups are displayed in alphabetical order, and the line items that are not part of a group are displayed under the group **Not Grouped**. You can change the name of the groups and move line items between groups. When a record or line items are copied, the groups are also copied.

> **Notes:**
>
> - The Manage Groups option is available for Line Item and Cost BP types.
> - By design, you cannot move a group from the Selected Columns section to the Available Columns section.

To create a group:

1) After the line items are created, open a business process record, and select a line item tab (for example, **Line Item List** tab).
2) Select one or more line items.
3) Click the **Actions** drop-down menu and select **Manage Groups** to open the **Manage Groups** window.
4) In the **Manage Groups** window, click the plus icon (⊕) to create a group on a new row.
5) Enter a name, and description, for the new group.

> **Note**: Avoid using the "<" character while naming a group.

6) Select one of the following options:
- **Cancel**: If you make any changes to the groups and click **Cancel**, the window closes without any changes saved.
- **Save**: If you make changes and click **Save**, your changes will be saved, but the **Manage Groups** window will still be available to make more changes.
- **Save & Close**: If you make changes and click **Save & Close**, your changes will be saved, and the **Manage Groups** window closes.

To edit group property:

1) From the line item tab, select a group by hovering over the group name.
2) From the *gear menu* (⚙), select **Edit Group Properties**.
3) Change the name or description of the group, and select **Save**.

> **Note**: Avoid using the "<" character while naming a group.

You cannot change the properties of the default group **Not Grouped**.

To add line items to a group:

1) Open a business process record, and select a line item tab.
2) Select one or more line items. To select multiple line items, you have to click **Cancel** or **Save**.
3) From the *gear menu* (⚙), select **Add to Group** and select a group.

    The group line item will appear at the top of the line items area of the business process form in bold. The **Amount** column will show the sum total of the line items you added.

    If a line item has been copied and the copy source is already in a group, the new copied line item will be in the same group.

    If the option is enabled, in the **Line Items** tab, the **Amount** column displays the total amount (only the amount value).

To remove line items added to a group:

Select a line item and from the *gear menu* (⚙), select **Add to Group** and select **Not Grouped**. You can also choose to move line items to other groups.

To manage groups:

From the toolbar, select **Actions**, and then select **Manage Groups** to open the **Manage Groups** window and display all the existing groups, excluding the Not Grouped items. The sorting order is ascending, by default.

The **Manage Groups** option is only available for Line Item type BP and Cost type BP (excluding the SPA type BP). When there is a flat list of line items in line item log, the **Manage Groups** option is not available. The **Manage Groups** option is available when there is at least one group available to select.

In the **Manage Groups** window, you can delete existing groups, also (click a row and click the trash-can icon). You can select multiple groups, right-click (or click the *gear menu* [⚙]), and select **Remove**, to move the groups to the Not Grouped items.

The groups are sorted in alphabetical order. The sort order of the line items within the group will be governed by the Line Item List Sort as set in the configuration.

To expand or Collapse Groups:

From the line items tab, select the ⊖ **Collapse all Groups** or ⊕ **Expand all Groups** icons.

To create line item groups by using CSV:

You can group line items by CSV import.

The system inserts an additional column in the CSV file, **Tab Name**, D row. The cell under the **Group Name** column contains the line item group name. It is optional to enter a value. The column is provided so that you can assign line items to the groups, at the time of creation.

When you import a line item, if the group name that you enter in the template exists in the record, the system adds a line to the group.

If the CSV template has multiple line items, and if a few lines have **Group Name** value and others do not, the ones with the empty **Group Name** will be in the "Not Grouped" group at runtime.

If the CSV template has no **Group Name** specified for any of the line items, the line items will not be grouped.

Example

In the CSV template below, the user is attempting to create a Daily Report record.

The user has entered H for the upper form details and wants to create the record with line items in Equipments, Materials, and Visitors tabs.

1) Six line items have been entered against the Equipments tab, and four of the line items belong to a Group called "All Equipments." The subsequent columns in the D rows pertain to the line item details.

2) The two line items that do not have any group mentioned will go under "Not Grouped," post import.

3) The two line items have been entered for the Materials tab. Post a successful import, the group "Reinforcements" will be created.

4) One line item has been entered against the Visitors tab, and the user does not want to group this one line item. As a result, the Group Name value has been left blank, intentionally.

Import Business Process Records								
Note: Do not change column structure								
Do not enter symbols, such as currency or digit grouping, in the numeric fields.								
Enter a negative numeric value using these formats only: -123456.99 or -123456,99.								
Please enter the attachment names separated by ':' in the next available column after the last data element present for Record or Line Item respectively.								
Equipment	Description		Model		Type	Item Quantity	Work Area	Remarks
Materials	Description		Item Quantity		Remarks	Short Description	Delivery Time	Material Name
Visitors	Remarks		Short Description		Time	Company Name of V	Visitor Name	Company Represen
Workforce	Work Area		Remarks		Source	Short Description	Contractor	Work Performed
Note: Detail will be listed as D with union of all elements across tabs								
H	Record Number	Title	Creator	Creation Date	Due Date	Contract Reference	Superintendent	Daily Activity Date
D	Tab Name	Group Name	Description	Model	Type	Item Quantity	Work Area	Remarks
H		Daily Report for 03/07		3/8/2018				
D	Equipments	All Equipments	Starmark Partners BackH	Hyundai	Backhoe		1	East Wing
D	Equipments	All Equipments	Starmark Partners Dippe	CAT	Dipper		1	East Wing
D	Equipments	All Equipments	Starmark Partners Excav	CAT	Excavator		1	East Wing
D	Equipments	All Equipments	Starmark Partners Digge	CAT	Digger		1	East Wing
D	Equipments				Power Generator	Electrical	5	East Wing
D	Equipments				Battery Backup	Electrical	10	East Wing
D	Materials	Reinforcements			ACC concrete	Cement	100	East Wing
D	Materials	Reinforcements			Steel	Steel High grade		East Wing
D	Visitors	Workforce					25	East Wing

Viewing Groups when Referencing Line Items by Way of Line Item Data Picker

You can create line item groups under each line item tab in a business process record and view the line items by group. When referencing a line item within a source BP record, you can also select a line item (from the line item data picker) that belongs to a specific group (for example, contract type). This is, if your selected source record line items have groups, the line item data picker shows the line items along with the group names; otherwise, a flat list of line items (that match the query conditions) is displayed.

In the line item data picker:

▸ The groups are displayed in ascending order.

▶ The line items that do not belong to any group will be displayed under "Not Grouped" column, similar to the line item log.

▶ In a line item data picker, when line items are filtered using query conditions defined for your environment, group names should be shown along with filtered line items. The same behavior is applicable if additional user filters record using Search or Find on Page in the line item data picker.

▶ When line items are filtered (using query conditions defined for your environment), the group names are displayed along with the filtered line items. The same condition applies if you filter a record using the **Search** or **Find on Page** options in the line item data picker.

If you select a group node in the line item data picker, the select option will not be enabled; therefore, you cannot pick a group from the line item data picker.

The type-ahead feature of the line item data picker displays:

▶ Display element value
▶ Line number
▶ Group Name

Adding Line Item Attachments

After a line item is in the process of creation, the **Attachments** tab will be available in the right pane.

To add an attachment to a line item:

1) Go to the business process and click the **Line Items** tab.
2) Click **Add** to create a line item.
3) On the right pane, click the **Attachments** tab.
4) To select a file from your computer, select **Add Attachment**, and then select **Browse**.
   a. Drag and drop files from your computer, or click **Browse** and navigate to your file.
   b. Select if you want to revise the file automatically if a file with the same name exists.
   c. Click **Upload**. The date and time that the attachment upload is also displayed.
5) To select a file from Document Manager, select **Add Attachment**, and then select **Document Manager**.
   a. Select a file. You can use **Find on Page** to help you find a file. You can expand and collapse the document structure to navigate to your file.
   b. Select the **Copy Comments** checkbox to copy the comments that are associated with the file you are attaching.
   c. Click **Select**.

Removing Line Item Attachments

The ability to remove an attachment depends on certain conditions. When you are assigned to a task that has a line item attachment, you can remove the attachment *if you have uploaded the attachment yourself*; otherwise, only the record owner (the creator) of the Business Process (BP) record can remove the attachments.

To remove a line item attachment:

1) Go to the business process and click the **Line Items** tab.
2) Select a line item from the log.
3) On the right pane, click the **Attachments** tab.
4) Click the *gear menu* (⚙) and select **Remove**.

Restricting Line Items by Using Copy with Conditions Option

You can use the **Copy with Conditions** option (from the *gear menu* [⚙] next to the record) to copy a specific line item, rather than copying all line items. You can also use this option to:

▶ Include, or exclude attachments
▶ Include linked records
▶ Retain or remove references to auto-created records or line items

These copy options are set up by your administrator and will appear in a list that you can choose from.

If no copy options have been created, the Copy with Conditions submenu option will be disabled.

To restrict line items using the Copy with Conditions option:

> **Note:** The following is applicable to Company, Project/Shell, and master logs. This option is not available in the **Tasks** log.

1) Select a BP and open the BP log.
2) Click the *gear menu* (⚙) next to the record that you want to copy and select **Copy with Conditions**.
3) Follow the prompts to complete copying your record for use.

Adding and Managing Line Items Using the Grid View Feature

For Line Item business processes, the system provides a grid feature (**Grid View**) that shows the line-item entry form in a lateral sheet view, where you can enter the data directly without having to open a line item form. In this regard, the sheet works the same way the line-item entry form works—rows might not be editable because of their statuses, auto-populated fields will be filled in for single-record BPs, if a yet-to-buy amount has already rolled up from a cost BP to the cost sheet, you will not be allowed to modify the line item, and so on.

> **Note:** The Grid feature is best used for short line items.

The following shows the Standard View of the Grid View:

If a line item has any attachments, you will see a paper clip icon next to the line item number, which you can click to view a list of all attachments connected to the line item. If a line item has been linked to another business process record, a link icon will appear in the column directly to the right of the attachments column. If you scroll to the right, you can see the total amount of all line item attachments in the BP record.

> **Note:** Attachments, linked records, and the Total Amount will only be visible if the BP has been designed to allow these line item fields.

The grid feature (**Grid View**) shows the line item number and all the fields on the line item entry form, including fields that are required, formulaic, or populated, as well as fields that are part of a dynamic data set. The fields on this grid work the same way they do on a line item entry form—pickers display picker windows, menus display lists, formula fields produce calculations, date picker fields display calendars, and so on; however, radio buttons will appear as drop-down (pull-down) menus, and image, hyperlink, and BP Creator fields have special behaviors.

You can resize the columns by dragging, and sort the data by column (except for Row and image fields). You can use the **Tab** and arrow keys to move from field to field and open them. For business processes that include many line items, you can use the **Search** function to filter the list to display only certain line items.

The grid feature (**Grid View**) is not available on:

▸ RFB bidder forms

- ▶ Line Item with CBS Code BPs (Transfer classification)
- ▶ Standard tab of Payment Application Line Item with CBS Code BPs
- ▶ Simple type BPs
- ▶ Document type BPs with Folder Structure
- ▶ Project/Shell Creation BPs (Simple sub-type)

What is not available on the grid:

- ▶ Summary row functions: Summary line items do not appear on the grid and cannot be created on the grid. In addition, line items within the summary do not appear.
- ▶ Transaction currencies
- ▶ Line item consolidation
- ▶ Import function

Behavior Set DEs in the Grid Feature

Because fields displayed in the grid feature (**Grid View**) can come from DDS, the behavior set DEs can be seen in the grid. If you select **Disabled and Clear** for a behavior set that is present on the grid, the updated value is displayed in the grid. This value is either populated with a value or left blank.

Last One to Save Over-Writes Other Edits (Except for Deleted Rows)

The Grid feature can be used simultaneously by multiple users. To accommodate multiple editors using the grid simultaneously, the commit order of saved edits is on a line-by-line basis, not on the entire grid view. If two users are editing the same line item, but different fields, at the same time, the edits made by the last user to save that line item are the edits the system will commit to the record.

For example, if User 1 changes an amount field from 15,000 to 23,000 and saves the change, and User 2 changes a different field, but does not touch the amount field, when User 2 saves the grid, the system will commit User 2's edits; and the amount field will show 15,000 rather than 23,000.

The order of saved edits is particularly important for deleted rows on the grid. After a row is deleted, it cannot be reinstated with a later edit. For example, if User 1 deletes a row and saves the grid view, and User 2 changes the amount field in that row from 15,000 to 23,000 and saves the grid view, the row will **not** be reinstated with the new amount of 23,000.

Error messages

If the system detects errors when you save line items, error messages will appear in a pop-up window, with a red x marking which line item contains the errors.

Add Line Items using the Grid

1) On the business process form, select the tab containing the line items you want to add to.

2) On the Line Item window, click the **Grid** button. The Grid window opens, showing a new, empty row at the bottom of the list to use for the new line item.

3) To enter data into the grid, double-click a cell in the new row. The cell opens for editing.

As soon as you begin adding a line, a change icon appears in the first column as a reminder that a line item has been added to the record, and the **Save** button becomes active.

4) Fill in the fields on the grid as necessary.

5) (Optional) To include an attachment to a line item, click the **Attach** button in the right pane. Select either **Browse**, to attach a file from your computer, or **Document Manager**, to attach a file from the document manager.

6) To save the line item to the record, click **Save**.

When you save the line item, the system:

▸ Refreshes the grid view.

▸ Removes the change icon.

▸ Adds the line item to the list.

▸ Inserts a blank line at the bottom of the list for another new line item.

▸ Updates the line items on the business process form.

▸ Updates summary if configured to do so.

▸ Line item summaries, for totals and summary averages, update in real time.

7) To add additional line items, repeat steps 3 through 6.

Link Line Items to other Business Process Records

After you begin the process of creating a line item, you can link the line item to a business process record in the **Linked Records** tab.

To link a line item to a BP record:

1) On the BP form, select the tab containing the line item you want to link to a record.

2) Select the line item you want to link and click the **Linked Records** tab in the right pane.

3) Click **Add**. The Add Records window opens.

4) Move records from the **Available Records** list to the **Selected Records** list with the arrows between the two lists. You can narrow your search with the options in the top toolbar.

5) Click **Done**.

When you link a business process record, the Linked Records tab shows the Current View for all records and provides the following details:

▸ Direction

▸ Type

The contents of the Type column indicates whether the linked record has been associated automatically (by way of Line Item Consolidation), or manually (by way of manual linking).

▸ Business Process

▸ Record Number

▸ Record Title

‣ Record Location

- If the BP is a company-level BP, the Record Location shows the Company Workspace tab name.

- If the BP is a Project-level BP, the Record Location shows the Project name.

- If the BP is a Shell-level BP, the Record Location shows the Shell location.

Notes:

- You cannot remove the link Type: Line Item Consolidation.

- If there are multiple line items consolidated from the same BP record, then the BP record will be seen as a linked record for that many line items.

- If the line item with the link Type: Line Item Consolidation moves to the status, "Previously consolidated lines are available when terminal status equals," or is terminated, the link will be automatically removed.

- If using a Detail form, click Linked Records in the lower-right corner of the Detail form. You do not need to save the line item to link a record.

Edit Line Items using the Grid

To edit line items using the line item grid:

1) On the BP form, select the tab containing the line items you want to edit.
2) Click the **Grid View** icon.
3) On the Grid, double-click the cell you want to edit. The cell opens for editing.

   As soon as you begin editing, a red change icon appears in the first column as a reminder that the line item has been modified, and the **Save** button becomes active.

4) Click **Save**.

   When you save the line item, the system refreshes the grid view, removes the change icon, and updates the line items on the BP form.

5) To edit additional line items, repeat steps 1 and 2.

> **Notes:**
> - When editing the element of Dynamic Data Set, use the drop-down list to select the values or labels.
> - When editing the element of Multi-line Text Data Element (DE)/field, use the text box to conduct your in-line editing. You can change the width of the box, but the height of the box is set according to the DE properties (that is, Number of lines).

When you edit a line item grid, the row counts (at the bottom left corner of the grid) capture the following actions:

▶ **New**

The count will depend upon the **Add** action and the **Copy** action on the line item. The number gets updated when you add new line items.

▶ **Deleted**

The count will depend on the **Remove** action on the line item.

> **Note:** These counts will not appear when the grid is in view only mode.

To edit an image field on a line item grid:

An image field on the grid displays only an image icon: however, you can see a thumbnail of the image if you double-click the icon. If you want to change or remove the image, double-click the cell anywhere but on the icon. The system displays a menu, from which you can choose to upload a different image, or move the image.

To edit a hyperlink field on a line item grid:

If you want to change a hyperlink, double-click the cell anywhere but on the hyperlink. The system displays the Hyperlink window, where you can change or remove the link.

To edit a checkbox field on a line item grid:

When the field is opened in **Grid View**, it is rendered as a box that you can select or deselect.

If the list of line items is opened in **From View**, all the line items for a given tab are displayed. Similar to **Grid View**, the checkbox in the line item list is also rendered as a disabled box with the value.

The **Find on Page** option in the grid renders the checkbox field as a text box that lets you enter **Yes** or **No**. If you enter **Yes**, the system selects the checkbox, and the line item associated with the checkbox is displayed along with the selected checkbox. If you enter **No**, the system does not select the checkbox, and the line item associated with the checkbox is displayed along with the deselected checkbox.

Insert a Row into the Grid

Inserting a row in the grid can be convenient if you have a long list of line items. The system automatically opens a new line item at the top of the list, but if the list is long, it can be more convenient to insert line items wherever you are in the list. When you save the grid view, the system re-sorts the added rows into their proper place.

To insert a row or rows:

1) On the Grid, select a row and click **Add** on the toolbar.

   To insert multiple rows, click **Add** again. The system inserts the row(s) below the row you selected.

2) Fill in the line item fields and click **Save**.

   The system reassigns the line numbers as follows:

   ▸ If any rows have been deleted during an edit, the line numbers are reused so that the line numbering remains continuous. (*Exception*: If the amount on a CBS line item has been rolled up to the cost sheet, the line number will not be reused.)

   ▸ After deleted line numbers have been reused, any new line items are assigned numbers in ascending or descending order, depending on how the sort order was specified when the Item log was created.

Manually create a business process from the Grid

A BP Creator field configured for automatic creation mode will appear as a read-only field on the grid. But if the field is configured for manual creation, you can set up the business process creation from the Grid. The new business process will be created when you finish editing the form, or send the form on to the next step in the workflow.

To manually create a business process from the Grid:

1) Double-click the BP Creator field.

   The field will display the words "**Pending Creation**."

2) Click **Close Window** to close the Grid and return to the form.

3) On the form, click **Submit** (if this is a non-workflow BP), or **Send** to send the BP form on to the next step in the workflow.

   The system creates the business process. After the business process has been created, this field will show a hyperlink to the new business process.

To prevent a business process from being created:

1) Double-click the BP Creator field.

   The field will display the words "**Pending Creation**."

2) Double-click the BP Creator field again.

   The system clears the text from the field and will not create the business process.

Copy a Line Item on the Grid

1) On the form, select the tab containing the line item you want to copy.

2) On the Line Item window, click the **Grid** button. The **Grid** window opens

3) Select the line item (or items, using the **Ctrl** key) you want to copy and click **Copy** in the *gear menu (⚙).*

4) The system pastes the copied line item(s) into the row(s) above the selected line. Edit values in each column as necessary.

5) Click **Save**. The system renumbers the line item(s) with the next incremental number(s) and updates the line items on the form.

You can copy cell values by way of:

a) Dragging cell value

When you click a field (cell) in a line item grid that is editable, the system displays a small blue square icon (indicator) on the lower-right corner of the cell. The indicator is available for fields that are editable.

You can drag the indicator to copy the cell value onto the cell below. After you copy the value, the value in the recipient cell appears as modified (the font will be purple in color, and the format will be italic.

When you drag the cell values for multiple cells, the pattern of values of the copied cells will also be copied.

If you select two cells and drag the values into three cells, the system will replace the value of the third cell with the value of the first cell that was copied.

b) Changing cell value

When you want to change the value of a field (cell) that is editable in multiple line items, use the **Shift** key to select the consecutive (adjacent) line items, click the cell, in one of the line items, enter the value that you want, and click **Enter**. You can use the **Ctrl** key to select inconsecutive (not adjacent) line items.

> **Note:** The search functionality is not available when the grid is being edited.

Adding and Managing Comments

Business processes provide a comments section that lets you add text comments that are like notes that accompany the business process but do not become part of it.

Depending upon the workflow setup and your permission settings:

▶ During the Creation step, you can specify whether to prevent users from adding or deleting hidden comments.

▶ You can hide comments entered by other users.

▶ You can add, update, hide, display, or delete your own comments.

▶ You can attach supporting documents to your comments, which do not become part of the attachments of the BP itself, or mark up attached documents. See *Working with File Attachments and Markups* (on page 121).

▶ You can add comments if you are a task assignee or if you have been copied (cc'd) on the business process.

▶ You can add comments to a business process at the **End step**, and also at any status in a workflow, including **Terminated** (which means the business process was stopped at some point in the workflow). To add comments at those points in a workflow, you must have the **Add General Comments** permission.

> **Note:** Some users, such as project managers, may have an additional permission that allows them to add general comments to any form (workflow or non-workflow) that they can view, without accepting the task.

You can add comments if you are not a task assignee, provided that you have the following permissions for business process records:

▶ **View**
▶ **Add Comments**

In this scenario:

▶ You can only add comments when the business process record is in View mode.
▶ You will not be able to hide comments. The Hide Comment option is available for task assignees who are working on an accepted task (an Action form associated with the workflow step).

Add Comments to a Business Process Form

When you add a new comment to a business process form, it remains as a draft until you send the form to the next step in the workflow. Comments are editable in the draft stage; you cannot modify the comment after it has been sent to the next step. Comments that are in draft mode can be edited by right-clicking the-comment and clicking **Edit**. By default, comments you post are automatically hidden; you can deselect the **Hide** box to make comments public. Private draft comments have the following hidden icon 👁️‍🗨️ next to them; when the record moves to the next step in the workflow, the hidden icon changes to red 👁️‍🗨️ .

To add comments to the business process form:

1) Open a business process record.
2) Select the main form (**Record Details**) tab.
3) From the right pane, select the **Comments** tab.
4) Enter your comments in the **Comments** box.
5) To add an attachment to a comment from your computer, click **Attachment** 📎   and then select **Browse**.
   a. Drag and drop files from your computer, or click **Browse** and navigate to your file.
   b. Select if you want to revise the file automatically if a file with the same name exists.
   c. Click **Upload**.

6) To add an attachment from Document Manager, click **Attachment** 🔗 and then select **Document Manager**.

    a. Select a file. You can select the **Find on Page** icon to help you find a file. You can expand and collapse the document structure to navigate to your file.

    b. Click **Select**.

7) Deselect the **Hide** checkbox to post a public comment.

8) Click **Post**.

> **Note:** The Comments box does not recognize formatting, including line breaks. Even if you press the Enter key to make a new line in the Text Comments section, the final comment will not reflect the new line.

If the **Comments** tab of the business process form contains any comments, a **Comment** ↪ indicator is displayed. If the tab contains no comments, the right pane is refreshed and the indicator is no longer displayed.

Copying Comments

To copy your comments:

1) From the Comments tab, right-click a comment and select **Copy**. A new comment row is created.

2) Use the **Comments** box to add or edit the comment.

3) To add attachments, click **Attachment** 🔗 and select **Browse** or **Document Manager**.

4) Click **Post**.

> **Notes:**
> - Click an attachment to open it.
> - To download and attachment, select the arrow next to the attachment and select **Download**.
> - To delete an attachment, select the arrow next the attachment and select **Delete**.

Add Comments to a Document Type Business Process

To add comments to a document type business process:

1) Open the document.

2) On the right of the screen, there will be a **Comments** widget. Enter your comments in the **Comments** box.

3) To add an attachment to a comment from your computer, click **Attachment** 🔗 and then select **Browse**. Open a file from your computer.

4) To add an attachment to a comment from the document manager, click **Attachment** 🔗 and then select **Browse**. From the Document Manager, select the file that you want to attach.

5) Click **Post**.

This process also applies to documents attached to business process records.

> **Note**: If the document type BP has been designed to use line item status, and a specified status has already been reached (for example, approved), the line item may no longer be editable, and you may not be able to add comments to it.

View Comments

To view comments:

1) Open a business process record.
2) Select the **Comments** tab from the right pane.

    A list of comments is displayed on the right pane. The name of the user who posted the comment, the company name of the user, and the timestamp when the comment was added or updated are displayed. You can also view the attachments associated with the comment. When the tab is expanded, the left pane displays the grid and the right pane displays the content of the selected comment.

3) To filter the comments, use the **Posted By** drop-down menu to view comments by a specific user or by all users.

Edit or Delete Comments

Comments on a business process record are displayed in the **Comments** tab.

When you add a new comment to a BP form, it remains as a draft until you send the form to the next step in the workflow. Comments are editable in the draft stage; you cannot modify the comment after it has been sent to the next step. Comments can be deleted after being sent, only if the BP workflow has been set up to allow deletion of comments.

To edit a comment:

1) From the **Comments** tab, select a comment.
2) Right-click a comment, and select **Edit**.
3) Update your comments.
4) Click **Post**.

To delete a comment:

1) From the **Comments** tab, select a comment.
2) Right-click a comment, and select **Remove**.

    Deleting a comment will create an entry in the **Audit Log** tab for the business process.

    ▸   The Date column will list the date that the comment was deleted.
    ▸   The Event column will state that this event occurred in the comments of the business process.
    ▸   The Action column will state that the comment was deleted.
    ▸   The New Value column will list the comment that was deleted.

Hide Comments

You can hide comments that you do not want to be generally viewed on workflow business processes. If you have permissions, you can view previously hidden comments. Other users will not be able to see the hidden comments unless they have the View Hidden Comments permission set, and using that permission, can also unhide the hidden comments. As the creator of the comment, you can view your own hidden comments, whether or not you have the View Hidden Comments permission (until the comments are published).

> **Note:** Hidden comments are never included in the PDF attached to emails, regardless of a user's view permissions.

To hide or unhide comments:

1) From the Comments window, right-click the comment, and click **Edit**.
2) Select the **Hide** checkbox.
3) Click **Post**.

> **Note:** Due the nature of end steps, you cannot hide or delete comments on the end step of the workflow, even if the end step is an action (editable) form.

Working with Query-Based Tabs

Query-based tab (QBT) enables the user to:

▸ Create a new business process from the QBT in the same Project/Shell, where the parent business process resides.

Users can create new business process records from the QBT provided that the users have permission to create business process records for the Project/Shell that contains the business process.

▸ Copy a business process in the same location as the parent business process.

Users can copy a business process either with or without attachments. In addition, a user can copy any of the records in the QBT and create a new business process record.

Notes:

- Only one record at a time can be copied.
- You cannot copy attachments for document BPs. Line items of records are treated as attachments, so details of line items and forms are not copied to document-type BPs.

When the user copies a business process record to create a new business process, the new business process record contains all the information present in the copied/based business process record. So, in case of business records with attachments, the user has the option of including or excluding (copying or not copying) the attachments when copying a business process record.

▶ Search for business process records based on user-entered criteria.

Users can find any record from the list of records included in the QBT.

> **Note:** The fields available for the Find feature must be defined for the business process.

Using or Viewing a Query-Based Tab

To use or view a Query-Based Tab (QBT):

1) Navigate to the parent Business Process log in your Project/Shell.
2) Open a record to view the QBT.

> **Note:** The source Business Process/Space/Level of the QBT must be active for the tab to display.

3) Click New or Copy to create a record. The new record will display if query conditions are met.

As a pre-process to defining the Query tab in the business process (applicable for Line Item, Cost, and Document-type business processes), you must use a reference picker in one of the upper forms of the business process, Space, or Level from where you want to create the Query tab.

Format of the Currency for Query-Based Data Element (QBDE)

When the values for the query conditions are set, you can see the QBDE values according to the values that had been set up in the **Modify Data Element** window (selecting, or deselecting, the **Hide Currency Symbol in Cost type Business Process** option). Go to your project (**User** mode) and click the item.

When you open the record, you will see the same QBDE value in the user interface. You can print the record. In the Classic View, the **Upper Form** contains the values, accordingly.

> **Note:** When using QBDE, be aware that query elements are rounded off to use two decimal places, even if the Base Currency and various defined currency fields are different.

Administrator

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

In the left Navigator, select **Configuration**, and then select **Business Process**.

Click a BP to open the **Configuration** window.

Click the **Query** tab.

Under the **Query Conditions** block, click the query element name, and click **Modify**.

Define the values under the **Definition** and **Condition** blocks and deploy.

Creating a Record from the Query-Based Tab

When creating a record from its own BP log, the "SYS Numeric Query Based" Data Definition is updated when the user picks a reference process.

When creating a record from the Query Based tab of another BP (that auto-populates data to the record being created), the "SYS Numeric Query Based" Data Definition is not updated, unless the user:

- Manually changes the value.

- Uses a triggering element.

You cannot create a company-level business process record within a project, from a Query-Based tab.

Using Query-Based Tab Logs

From the Query-Based tab log, you can view, create, and copy BP records. The following toolbar options are displayed in the log.

Toolbar Options	Description
Create	Create records from the QBT. This button is seen only if you have permissions to create the record. Click the arrow to select a workflow if multiple workflows exist for the BP
↻ **Refresh**	Refresh and reload the page
🖶 **Print**	Prints the list view. You can choose from: **Print**, **Export To CSV**, **Export To Excel**. **Notes:** ▶ For export to Microsoft Excel, the system currently supports only Euro (EUR) and United States Dollar (USD) currency symbols.

Toolbar Options	Description
	▸ If you export data from a business process (BP) record, sheet (such as an Activity Sheet), or log (such as Company Funding Sheet Log) to Excel, be aware that depending on how your negative values are formatted, you might need to configure your columns in Excel to match the correct data type (Number). Otherwise, the columns will not be treated as numeric and will not sum as expected. One supported format includes placing the negative sign between the currency symbol and the amount (for example, $-1,000).
≡Q **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.
Q **Search**	Lets you search for specific line items across all pages.

The *gear menu* (⚙) displays next to each record and contains all available actions that you can perform on the record. The following options are displayed in the *gear menu*: **Open**, **Copy**, **Copy With Attachments**, and **Copy Without Attachments**. The copy options are displayed only if you have permissions to create records in the current shell.

Query Based Data Element (QBDE) Evaluation

The Query Based Data Elements (QBDEs) are evaluated through one of the following ways:

a) Based on the refresh conditions, when the record is opened (even from the draft).

b) Based on the manual editing of the trigger elements, through user interface (this does not include the situation in which the record is initially created).

c) Based on when the record is created. That is, the system evaluates QBDE values based on trigger element population, when a new record is created.

When you create a business process (BP) record (creation step of a BP record), the system evaluates the QBDEs:

▸ When the trigger element is edited manually on the form in the creation step.

▸ When the trigger element is auto-populated.

However, QBDE query conditions with null or empty values are ignored when dynamic values are selected in the following areas: Data pickers, Autocreation (BP Creator and BP Line item creator), Gates, Auto updates status setup, and Planning sheets.

Notes:

- Because the system evaluates QBDEs in a random order, Oracle recommends that you do not create a QBDE that uses a formula that references another QBDE.

- DEs that have been defined as a QBDE trigger element should not be evaluated as part of QBDE calculation.

- 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 manually entered, the QBDE element will not be evaluated.

- Query conditions ignore the Timestamp for Date-type data elements. Therefore, at run-time, when queried on a date picker, search results display records that satisfy only the date criteria. For example, *all* records updated on April 10, 2024 display, regardless of the time they were updated.

- When using QBDE, be aware that query elements are rounded off to use two decimal places, even if the Base Currency and various defined currency fields are different.

QBDE Evaluation in BP Records Created through CSV import or RESTful Services

The system evaluates the QBDEs when the trigger element is populated by way of a record that has been created through CSV, RESTful service (if the trigger element is entered in the input CSV request), BP templates, and Bypass I Step auto-creation.

QBDE Evaluation in BP Records Created through Auto-Creation

When a BP record is auto-created through Bypass I Step, the system evaluates the QBDE values in the auto-created records based on the trigger element population. When a trigger element is used for QBDEs, and the trigger element is auto-populated, the system evaluates the QBDE values in the creation step of the auto-created record.

In the case of Bypass I Step auto-creation, if the auto-created record resides in Initiation Step, the system does not evaluate the QBDEs.

The system evaluates formulas that use QBDE in the creation step of the BP form.

If the QBDEs are used in the workflow routing conditions, the QBDE values will be populated in the log and view form (if they are added after the successful creation of records). In this scenario, the system evaluates the QBDE values after evaluating the auto-populated DEs and formula DEs on the form.

You can use the QBDEs in BPs in the workflow routing condition, which lets you determine the route of the workflow based on the value of the data element.

The system evaluates the formulas in QBDEs, in the creation step of a BP record.

The system will not evaluate the QBDE values based on trigger element population in BP records that have been created by way of copy (with or without attachments). For example, when you create a Budget Item BP, you can view the QBDE Assigned Budget value, evaluated from the project cost sheet in the creation step.

Working with File Attachments and Markups

You can attach files to be routed with a business process (BP) form. These attachments may be supporting documents that are attached to a BP record. You can also include attachments to the Comments section of the BP.

Unifier Viewer supports a wide range of document file types. The Native viewer lets you view most file formats in the application in which you created or regularly view them. If your Company Administrator enabled Office 365 integration, you can also use Microsoft 365 to view and update documents, including working on attachments for Generic Line Item, Cost type with Line items with CBS code, Document Type, and Simple BPs. For more information regarding settings, see **Choosing a Viewer Option** in the *Unifier Essentials User Guide*. For more information on working with documents, see **Creating and Managing Documents** in the *Unifier Essentials Managers Reference Guide*.

Files attached to BP records will be published to the project Document Manager based on the file path defined in the Project Configuration BP. For files attached from your local system, the **Publish to Document Manager** checkbox is automatically selected; if you clear it, the attachment is not published to the Document Manager.

A **Publish Path** data element can be designed in business processes to specify the automatic publishing of documents to a specified path and override the default. For more information about the automatic publishing of documents, see the *Unifier Essentials Data Reference Guide* and the *Unifier Essentials Managers Reference Guide*.

Notes:

- Before sending a workflow BP to the next step or submitting a non-workflow BP, you can rename an attachment. If you change the name of an attachment, make sure that you do not change the file extension, which can render the file inaccessible in Unifier Viewer. For example, do not change an extension from .txt to .docx.
- You cannot upload and attach two documents with the same name to a BP record.
- For security, the Company Administrators can use the **Security** tab on the **Company Settings** node to specify the types and size of files that can be uploaded to the system by users and per company policy. Contact your Company Administrator for more information.

Adding Attachments

To add attachments to the main form of a business process record:

1) Open a business process record.

2) Select the **Attachments** tab from the right pane.

3) To select a file from your computer, select **Attachment** 📎 and then select **Browse**.

    a. Drag and drop files from your computer to the **Drag and Drop** box, or click anywhere in the **Drag and Drop** box and navigate to your file.

    b. Select if you want to revise the file automatically if a file with the same name exists.

    c. Click **Upload**. The date and time that the attachment upload is also displayed.

4) To select a file from Document Manager, select **Attachment** 📎 and then select **Document Manager**.

    a. Select a file. You can select the **Find on Page** icon to help you find a file. You can expand and collapse the document structure to navigate to your file.

    b. Select the **Copy Comments** checkbox to copy the comments that are associated with the file you are attaching.

    c. Click **Select**.

The Publish to Document Manager checkbox is disabled for documents that have been added from the Document Manager. For files attached from your local system, the Publish to Document Manager checkbox is automatically selected; if you clear it, the attachment is not published to the Document Manager.

If the **Attachments** tab of the business process form contains any attachments, an **Attachment** 📎 indicator is displayed. If the tab contains no attachments, the right pane is refreshed and the indicator is no longer displayed.

Additional Information about Adding BP Record Attachments

Main Form: The main form, also referred to as the upper form, is the upper portion of a BP form. The main form contains the basic information that the form is managing, such as the name of a record and its description, who created the record and when, and so on. It also contains general data entry, informational, or reference fields for the BP form.

Action Form: The action form is the version of the BP form that opens when the recipient accepts the task implicit in the form. As a BP arrives at each step in a workflow, the system notifies the appropriate users, if they are involved in the step. When they open the notification, the system displays a view-only form of the step's task. If the user accepts the task, the form becomes an action form where the user can enter or edit information and attach additional documents. See also "View Form" in the *Unifier Essentials Data Reference Guide.*

You can include attachments in BP records by using the Attachments tab. To include comments and comment attachments, go to the Comments tab.

You can add attachments to the text entry form, along with your comments. These attachments can be viewed, in the response list. Attachments to comments are available in the unpublished documents section.

You can also add attachments to line items. For more information, see *Adding Line Item Attachments*.

Opening an Attachment

Before a task is accepted, you can review or download attachments. After it is accepted you can review, download, revise, rename, and remove attachments (depending on the properties of the form.

To open an attachment:

1) In the right pane, select the **Attachments** tab.

   The tab displays a list of attachments. If there are revisions, the Revised column includes a check mark. If you review the attachment, the revisions are displayed in the list of attachments. The Reference Record tab is displayed only if there are references to drawing file attachments.

2) Double-click the name of the attachment.

   The attachment opens either in the Native or Unifier Viewer, depending on your default setting. If Native is your default viewer, your Company Administrator enabled Office 365 integration, and the attachment is a CSV, DOCX, PPTX, or XLXS file, the attachment opens in Microsoft 365 (Office for the web).

For more information on adding annotations and markups, see *Add Markups to a Business Process Attachment*.

Renaming an Attachment

Before sending a workflow BP or submitting a non-workflow BP, you can update the name of (rename) an attachment.

1) In the right pane, select the **Attachments** tab.
   A list of attachments is displayed.

2) For the attachment in the **Unpublished Attachments** list that you want to rename, click the *gear menu* (⚙), and select **Rename**.

3) In the **Rename Attachments** dialog box, update the name, and click **Save**.

   > **Note:** When you change the name of an attachment, make sure that you do not change the file extension, which can render the file inaccessible in Unifier Viewer. For example, do not change an extension from .txt to .docx.

4) When the **Notification** message appears, click **OK**.

Attach Files to Comments Section of a Business Process

The **Comments** tab lets you enter your comments and attach documents or files that can provide more information about a BP record.

> **Note:** The Comments option cannot be used for updating any BP record.

To use the Comments option to enter your comment and attach files or documents:

1) Go to the shell tab and switch to **User** mode.
2) Open the Business Process (BP) record.
   A BP record could be in a folder such as Project Delivery, Cost Manager, Cost Controls, and so forth, in the left Navigator.
3) In the right pane of the BP record, click the **Comments** tab.
4) Click the **Attach Files** button (paperclip) and select one of the following options:
   ‣ Browse
   ‣ Document Manager
5) When you are finished adding attachments, click **Post**.

> **Note:** The attachment sources (**My Computer** and **Unifier Folder**) are available based on the BP design; these two options may not be available for a given BP.

The following topics explain the file attachment options in detail.

Attach Files to a Document-type BP from My Computer

This option lets you attach files from your computer or your local system onto a Document-type Business Process record.

After you select this option, the **Upload Files** window opens. You can add files to this list with the **Browse** button. This will open your system's file manager where you can select files to open.

You can either drag and drop files into the attachment list or use your system's file manager to add the files to the list. You cannot upload two files with the same name. After all files have been added, click **Upload** to add them to the attachment list in the Comments tab.

> **Note**: The system does not attach folders. If you select a folder, the system attaches the contents of the selected folder, in a flat list.

For details about automatic publishing of documents, see the *Unifier Essentials Managers Reference Guide*.

Attach Files to a Document-type BP from Unifier Folder

This option lets you attach files from the **Document Manager** (Documents folder).

When you select this option, the **Select Files** window opens, which displays all the folders of the Project/Shell documents.

Navigate through the listed folders to find documents to attach. You can highlight multiple files with Ctrl or Shift. After you have gathered all the applicable files, click **Select**.

> **Notes**:
>
> - Folders are not attached. Instead, the contents of a selected folder are attached in a flat list.
> - The system does not allow attaching files with duplicate file names.

By default, files attached to a business process are placed in the **Unpublished Documents** folder in the Document Manager grouping node.

To access this folder:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Document Manager**, and then select **Unpublished Documents**.

A Publish Path data element can be designed in Business Processes to specify the automatic publishing of documents to a specified path and override the default. Refer to *Unifier Essentials Managers Reference Guide* for details about automatic publishing of documents.

Document-Type Business Process Forms (With Folder Structure)

A Document-type BPs *with* folder structure maintains the folder structure of the attached documents and folders, and the files (within the attached folders and sub-folders) are listed in a flat list.

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Logs** and open a Document-type BP *with* folder structure.

   Examples of Document-type BPs with folder structure include Submittal and Document Approval.
3) Open a record. By default, the record properties window (**General** tab) opens.

> **Note**: Document BP without attribute form is not supported in the user interface.

The following explains each tab.

General tab.

On the upper-right side of the record window, you can **Submit** or **Decline**, and use the **Menu Options** icon (≡) to perform and access the following:

▸ **Email as Attachment**
▸ **Print (HTML, PDF, Custom)**
▸ **Transfer Ownership**
▸ **View Record Location**
▸ **Help (record help)**
▸ **Close**

On the left pane, you have the following options:
▸ **Record No.**
▸ **Status**
▸ **Publish Path**
▸ **Issue Date**
▸ Other fields

On the right pane, you have the following tabs:
▸ **Comments** (use the paper clip icon to **Browse** uploaded files or go to **Document Manager** to select files)
▸ **Linked Records**
▸ **Linked Mail**
▸ **Reference Records**

The **Maximize** icon is also available to expand the screen.

Line Items <line items> tab. The line items for Document-type BP are displayed according to the line item log designed for your environment.

On the upper-right side of the record window, you can **Submit** or **Decline**, and use the **Menu Options** icon (☰) to perform and access the following:

▸ **Email as Attachment**
▸ **Print (HTML, PDF, Custom)**
▸ **Transfer Ownership**
▸ **View Record Location**
▸ **Help (record help)**
▸ **Close**

On the left pane, you have the following options:
▸ **View Comments by**
▸ **Refresh**

> ‣ **Print**
> ‣ **Search**
> ‣ **Find on Page**
> ‣ **Expand All Groups**

The following columns are also displayed:

- **Name**
- **Record Comments** (callout icon)
- **Line Item Status**
- **Issue Date**
- Other fields

On the right pane, you have the following tabs:

> ‣ **Folder Details**

Refer to the *Unifier Essentials Managers Reference Guide* for more details.

Importing Attachments (With Folder Structure)

You can create line items in a Document Type BP with folder structure record and import attachments into the line items (go to a Document Type BP with folders record, open the folder, open the record, click **Actions**, and select **Import Attachments**).

To upload attachments for import:

1) Drag and drop files from your computer to the **Drag and Drop** box, or click anywhere in the **Drag and Drop** box and navigate to your file.
2) Select one or more files using the Shift or the CTRL keys.
3) Click **Upload**.

   Each file is displayed as a line item.
4) In the **Validate Attachments** dialog, perform any of the following actions for each line item:

   > ‣ Click **Error Check** to review all errors flagged for the uploaded attachments.
   > ‣ Click **Save** if no errors display or all errors have been resolved.
   > ‣ Click **Cancel** to discontinue the import.

For any Workflow, or Non-Workflow, Document Type BP with folder structure record you must ensure that all the required fields have values.

Copying Folder (Standard View)

If you have permission to create folders in a Document-Type Business Process For (With Folder Structure), you can see an additional option in the *gear menu (* ⚙ *)*: Copy. The *gear menu* options will be:

> ‣ **Add Sub Folder**
> ‣ **Move**
> ‣ **Copy**

▶ **Delete**

> **Note:** The above *gear menu* options apply to the customer-created folders only and not to the system-defined root folder, "Attachments."

Using the "Copy" option lets you copy a folder into the same path where it currently exists. In this case, the name of the newly created folder will be: "Copy of <original folder name>."

> **Notes:**
>
> - The bracket ">" symbol between the source folder and the destination folder has the hover over text: "Copy to."
> - The option "Copy" remains disabled until you select a destination folder.
> - When the copy action is complete for a folder, the original source folder continues to show as the selected folder in the grid.

Attach Files to Document-Type Business Process Forms

Document-type business processes, such as Transmittals or Submittals, can be used for routing documents such as specifications or drawings for review.

> **Note**: Comments and graphic markups can be added to individual files, and the document list is easily accessible from the BP form.

Document-type BPs can be designed such that files can be added to individual line items. This feature lets you assign line-item status to individual documents. If the status of the line item (and therefore, the associated document) reaches a specified status, for example, Approved, the BP can be set up so that the line item is no longer editable. At this point, attachments and comments to that line item are no longer allowed.

A Document-type BP with folder structure maintains the folder structure of the attached documents and folders, and the folder structure is displayed in the left pane of the lower portion of the form.

To attach files to a Document-type BP:

1) Go to the shell tab and switch to **User** mode.
2) Open the BP record.

> **Note**: A Business Process (BP) record could be in a folder such as Project Delivery, Cost Manager, Cost Controls, and so forth, in the right Navigator.

3) Go to the **Line Item** tab <tab name> (the very last tab) and click and open a line item.
4) Click the **Attachments** tab in the right pane, click **Attach Files**, and select one of the following options:

> ▸ **Browse** (local system)
> ▸ **Document Manager** (Document Management)

> **Note**: The attachment sources are available based on the BP design and both of these two options may not be available for a given BP.

The following explains each option in detail.

Attaching files to a Document-type business process with Browse

This option lets you attach files, from your computer or your local system.

After the **Upload Files** window opens, click **Browse** to open your system files.

Select the document that you want to attach.

> **Note**: You cannot select a folder.

After you select the file, click **Open .** All selected files will be added to the **Upload Files** window. When you have selected all files that you want to upload, click **Upload** in the lower-right corner.

After you attach your files, you can see the files listed in the **Attachments** tab, within the **Line Item** tab. The **Line Item** tab <tab name> (the very last tab) has two panes. The pane on the left displays the line items. The pane on the right displays the line item details, all attached files, and any linked records.

When you upload a file from My Computer as an attachment, to be able to enter file-related values for that attachment, the Detail Form design of Document Type with Folder Structure BP (Advanced Document Type BP), must have the following fields:

▸ **uuu_title**
▸ **uuu_revision_no**
▸ **uuu_issue_date**

> **Note**: When attaching files from the Document Manager, some fields on the line item may auto-populate with data from the document or folder Properties window. Document-type BPs can be designed to auto-populate certain data elements on the detail form with data from matching data elements on the Document Attribute Form.

By default, files attached to a business process are placed in the **Unpublished Documents** folder in the **Document Manager** grouping node.

To access this folder:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Document Manager**, and then select **Unpublished Documents**.

A **Publish Path** data element can be designed in business processes to specify the automatic publishing of documents to a specified path and override the default. Refer to the *Unifier Essentials Managers Reference Guide* for details about automatic publishing of documents.

Attaching files to a Document-type business process with Document Manager

This option lets you attach files from the **Document Manager** (Documents folder).

When you select this option, the **Select Files** window opens, which displays all the folders of the Project/Shell documents.

Navigate through the listed folders to find documents to attach. You can highlight multiple files with Ctrl or Shift. After you have gathered all the applicable files, click **Select**.

> **Notes**:
>
> - Folders are not attached. Instead, the contents of a selected folder are attached in a flat list.
> - The system does not allow attaching files with duplicate file names.

By default, files attached to a business process are placed in the **Unpublished Documents** folder in the **Document Manager** grouping node (go to the shell tab and switch to **User** mode; in the left Navigator, select **Document Manager** and then select **Unpublished Documents**).

A **Publish Path** data element can be designed in business processes to specify the automatic publishing of documents to a specified path and override the default. Refer to the *Unifier Essentials Managers Reference Guide* for details about automatic publishing of documents.

Add Markups to a Business Process Attachment

You can add markups, such as circles or other graphical elements as well as text, to a document, which display directly on the document, but do not alter the document itself. Markups are layered on top of a file, as if the markups had been done on an acetate sheet that had been placed on top of the file. Each user who adds a markup is adding a new layer to the file.

For more information about replacing and reviewing attachments, see *Reviewing Attachments in a Business Process* (on page 132) and *Revising Attachments in a Business Process*.

To add a markup to an attachment on a business process:

1) To open the BP record that contains the attachment, accept the task or click **Edit** (for a non-workflow BP record).
2) On the **Attachments** tab in the right pane, select the applicable attachment.
3) To open the attachment, click the *gear menu* (⚙) and select **Review**.
4) To review existing markups, select the previous comments below the **Comments** box on the right.
5) Enter your comments and post your comments on the document.
   a. To activate an additional set of tools, such as **Pan**, **Select**, **View**, **Annotate**, and so on, click anywhere in the **Comments** box.

   For example, to annotate a document, from the toolbar, click **Annotate**, and then click one of the tool buttons located below it, such as Highlight. After you select a tool, additional options appear in the container section to the right of the toolbar. If you selected Highlight, you might also want to select a specific color to use.

   b. Use the applicable tools to mark up the attachment.

   c. If applicable, enter your comments in the **Comments** box.

   d. To add attachments to your comments, click the **Attachment** icon and upload the applicable attachment.

   e. When you are done, click **Post**.

> **Note:** You can add comments in one document and then move on to the next document.

6) Close the window when finished.

If you would like to change markups, right-click the comment and select **Edit**. Markups can be removed or reinstated with **Undo** and **Redo.** New annotations can be added as well. When you have finished editing, click **Post**.

View Attachments in a Business Process

To view attachments:

1) Open the BP record that contains the attachment.
2) On the **Attachments** tab in the right pane, select the applicable attachment.
3) To view the **Revisions** and the **References** tabs, maximize the right pane. The **References** tab is displayed only if there are references to drawing file attachments.

   When you maximize the **Attachments** tab, the system selects the first file in the grid, by default, and a preview of the file is displayed on the right side of the window.

   The **Previous** and **Next** page buttons let you navigate between multiple pages.

The **Revisions** tab, located under the **Attachments** tab grid, lets you access the previous version of the file that you have selected, if available.

The preview screen displays the following file types:

▸ Image
▸ PDF

The audio and video files cannot be previewed. You cannot preview DLL and SWF files, but you can download the attachment.

Download Attachments in a Business Process

To download an attachment:

1) Select or open a business process record.
2) On the **Attachments** tab in the right pane, select the applicable attachment.

3) From the *gear menu* (⚙), select **Download**.

To download all attachments on a business process record:

1) Highlight the business process record from the log.
2) Select the **Attachments** tab from the right pane.
3) Click the **Download All** button on the top toolbar.

All attached files will be downloaded in a zip file, containing all the downloaded attachments.

Record level attachments are placed in the root folder while attachments belonging to line item tabs will be bundled under respective sub-folders in the zip file, with the name of the folder being the name of the line item tab.

If multiple files have the same name, a numerical suffix may be added to the file name. If more than 100 files have the same name, the suffix for the 101st file will have a time stamp as the suffix instead.

Reviewing Attachments in a Business Process

If you have a BP record that has several attachments (documents) attached to the BP record, as well as Line Items, you can review all the attached files in one place.

When you click and select a document, use the *gear menu* (⚙) to perform the following operations:

▸ **Review**
▸ **Open in Office for the web**
▸ **Download**
▸ **Revise**
▸ **Remove**

If you click **Review**, the **File Viewer** window opens. This window has the following sections:

▸ **Attachment grid:** After you add an attachment to, or remove an attachment from, the upper form, the Attachment grid will display the total number of the attachments upon clicking **Upload**. There is no need to save, send, or submit the form to see the attachment count.
▸ **File viewer:** Use the File viewer to perform the following operations, using the icons on top:
  ▸ **Maximize:** To expand the viewer.
  ▸ **Download:** To download a raw file.
  ▸ **Zoom**
  ▸ **Rotate:** To rotate the attached graphic.
    Rotation happens clockwise, by 90 degrees.
    Context-sensitive **Cancel** and **Save** options are made available when the system detects rotation. The **Save** option lets you save the rotational changes, and the **Cancel** option lets you reset the image back to its original state.
    Rotation will not be permitted after the first annotation is complete.

▸ **Comments:** To open the Comments pane. The Comments pane lets you insert your comments and annotate the file.

a. To activate an additional set of tools, such as **Pan**, **Select**, **View**, **Annotate**, and so on, click anywhere in the **Comments** box.

b. Use the applicable tools to mark up the attachment.

c. If applicable, enter your comments in the **Comments** box.

d. To add attachments to your comments, click the **Attachment** icon and upload the applicable attachment.

e. When you are done, click **Post**.

You can also review the comments posted by others. If a listed comment was entered using the previous Oracle Outside In Technology (OIT) technology, the comment is labeled OIT Comment and is displayed in a read-only format.

To review an attachment:

1) Open the BP record that has attachments.

2) Click the *gear menu* (⚙), and choose one of the following:

▸ To open attachments in the default Unifier Viewer, select **Review**. The Review option is available for an Action Form as well as a View Form.

▸ If your Company Administrator enabled Office 365 integration and the attachment is a CSV, DOCX, PPTX, or XLXS file, select **Open in Office for the web**.

The attachments and comments are displayed in the BP Attachment Viewer.

3) Review the comments posted by others.

If a listed comment was entered using the previous Oracle Outside In Technology (OIT) technology, the comment is labeled OIT Comment and is displayed in a read-only format.

4) Enter your comments and post your comments on the document.

a. To activate an additional set of tools, such as **Pan**, **Select**, **View**, **Annotate**, and so on, click anywhere in the **Comments** box.

b. Use the applicable tools to mark up the attachment.

c. If applicable, enter your comments in the **Comments** box.

d. To add attachments to your comments, click the **Attachment** icon and upload the applicable attachment.

e. When you are done, click **Post**.

> **Note**: You can add comments in one document and then move on to the next document.

5) Close the window when finished.

Additional information about the Review screen

If a BP record has reached a terminal status (Terminal Status or Terminated Status), the Review window opens in Read-Only mode.

If a hidden tab on a BP record contains attachments, the review screen does not display those attachments.

If the attachments present on a Query-based tab (QBT) on a BP record contain attachments, the review screen does not display those attachments.

The Review screen lists all document revisions for each revised document.

The Review window lists all the BP Record-level and Line Item-level attachments grouped first by BP Record attachments and then by Line Item attachments, according to the tab order.

Revising Attachments in a Business Process

You can revise/edit documents that are attached to any BP record or Line Item. If your Company Administrator enabled Office 365 integration, you can use Microsoft 365 (Office for the web) to revise attachments for Generic Line Item, Cost type with Line items with CBS code, Document Type, and Simple BPs.

> **Notes:**
> - Revising a document replaces the existing file (with the same name) in a BP record or Line Item.
> - If the terminal status of a BP record has been reached, the system disables the document revision option.

To revise an attachment by uploading it from your local machine:

1) Open a business process record.
2) In the right pane, select the **Attachments** tab.
3) Select an attachment, click ⚙ , and then select **Revise**.
4) Select the file you want to revise, click ⚙ , and then select **Browse**.
5) Select the revised file to upload and click **Open**.
6) Click **Upload**.

   To see a list of revised documents, maximize the Attachments tab on the right pane.

   If the name of a file that you attach to a BP record, or Line Item, matches the name of a file that exists in the BP record, or Line Item, the system lets you automatically revise the existing file (**Revise automatically if file with same name exists**) with the newly attached file.

To revise an attachment using Microsoft 365:

1) Open a business process record.
2) In the right pane, select the **Attachments** tab.
3) Select an attachment, click ⚙ , and then select **Open in Office for the web**.

4) Make the applicable changes and click **Save**.

To see a list of revised documents, maximize the Attachments tab on the right pane.

Publish Attachments or Revised Attachments in a Business Process

By default, documents attached to BP record, or Line Item are published in the **Unpublished Documents** folder. For Document-type BP record, or Line Item, with Folder Structure, the Company Administrator can specify that a configured folder path be appended to the folder structure. Refer to the *Unifier Essentials Data Reference Guide* for details.

The system publishes to the Document Manager:

▶ Documents attached to the BP record.
▶ Documents attached to the Line Item of the BP record.

> **Note**: Comments related to a document attached to the BP record and its Line Item are not carried over to the Document Manager when published.

You can auto-publish attachments if a BP has been set up to **Override DM Permissions** by your administrator or, you can include the **uuu_dm_publish_path** Data Element in the BP record, or Line Item. Alternatively, if the folder path in the business process is invalid, navigate to the **Unpublished Documents** node, select your file, and click **Publish**.

View Graphic Markups in a Business Process Attachment

To view graphic markups:

1) From the BP Attachment Viewer, locate the comments pane. Markups are associated with a specific comment.
2) Click a comment to view markups associated with the comment. Comments that have markups display the **Annotation** icon in the comment listing.

> **Note:** All comments are displayed in both viewers regardless of which viewer the comments were added in. Markups are visible only in the viewer they were made in.

Remove Attachments from a Business Process

To delete an attachment:

1) Open a BP record.
2) Select the **Attachments** tab from the right pane.
3) Select an attachment, click , and then select **Remove**.

Comparing File Attachments

The system lets you compare different revisions of a file that is attached to a:

- Business Process (BP) record.
- BP Line Item.
- Document in Document Manager.

To compare different revisions of a file or document that is attached to BP record and BP Line Item:

1) Open the BP that has attachments.
2) Click **Review** to open the **BP Attachment Viewer** window.
3) Select an attachment.
4) Click **Analysis** and select **Compare**.
5) Select the revision that you want to compare the current version with.
6) Follow the prompts and click **Finish** when done.

To compare different revisions of a file or document in **Document Manager**:

1) Go to **Document Manager** and open the folder.
2) Select a file that has revisions and click **Open** to open the **View File** window.
3) Click **Analysis** and select **Compare**.
4) Select the revision that you want to compare the current version with.
5) Follow the prompts and click **Finish** when done.

The system also lets you compare any Unifier Essentials file with a file on your local system.

1) Open the BP that has attachments.
2) Click **Review** to open the **BP Attachment Viewer** window.
3) Select an attachment.
4) Click **Analysis** and select **Compare**.
5) Deselect the checkbox for revisions.
6) Click **Browse** to select the file from your local system.
7) Follow the prompts and click **Finish** when done.

To compare a file or document in **Document Manager** with a file on your local system:

1) Go to **Document Manager** and open the folder.
2) Select a file that has revisions and click **Open** to open the **View File** window.
3) Click **Analysis** and select **Compare**.
4) Deselect the checkbox for selecting revisions.
5) Click **Browse** to select the file from your local system.
6) Follow the prompts and click **Finish** when done.

Republishing DM Document from BP Record

When a BP type lets you select **Republish if Publish Path is different from current location** (**Move** or **Copy**), then:

> **Note:** This option is not available for the RFB BPs bidder upper action form.

You can change the Publish option (in the **Publish to Document Manager** section) in the BP record in any attachment that you add from the Document Manager (DM).

When you select the Publish option, you can **Move**, or **Copy**, the attachment to a location (publish path as captured in the uuu_dm_publish_path). You can check **Automatically select all existing Record and Line Item Attachments for Republish.** The user can also Select all or deselect all attachments by checking or unchecking the checkbox in the column heading of the attachments grid.

If the uuu_dm_publish_path is the same as the current location of the file in DM, the file in DM stays as is, and there will be no revision or republish.

If the uuu_dm_publish_path is different from the current location of file in DM, then:

▸ If the **Move** option has been selected, the file (with all its revisions) can be moved from the original DM location to the new uuu_dm_publish_path. This type of move is the same as a manual move of a file from one location to another location in DM, and it is captured in the Audit Log. Furthermore, the BP record assignee (the user who initiated the move action) is also captured in the Audit Log.

▸ If the BP step assignee does not have Add Folder or Add Documents permission, then if the BP step assignee:

  ▸ Selects Send or Finish Editing, the system displays the following alert:

The following attachment(s) cannot be moved to <label of DE uuu_dm_publish_path> as you do not have permissions:

<File 1 Name>

<File 2 Name>

...

Do you want to proceed?

  If the answer is **Yes**, the record is sent to the next step or finish edit without moving the file.

  If the answer is **No**, the record is not moved to next step or finish edit, and the record stays at the current step giving the BP step assignee a chance to change the publish path or take other action.

> **Note:** If the source file is locked or checked out, then the source file

remains in the same state, at the destination after the move.

▶ If the **Copy** option has been selected, the latest revision of the file (from the original DM location) is copied into the uuu_dm_publish_path. The new copied file, at a new DM location, is linked to the BP record. The original file (with all its revisions) remains in the original DM location, as is, and it is not linked to the BP record.

▶ If the BP step assignee does not have Add Folder or Add Documents permission, then if the BP step assignee:

    ▸ Selects **Send** or **Finish Editing**, the system displays the following alert:

The following attachment(s) cannot be copied to <label of DE uuu_dm_publish_path> as you do not have permissions:

<File 1 Name>

<File 2 Name>

...

Do you want to copy these attachment(s) to Unpublished Documents?

    If the answer is **Cancel**, then the record stays at the current step.

    If the answer is **Skip**, then the file (or files) will not be copied and stay as is. The original file shows as an attachment and linked to the BP record. The record can be moved to the next step or finish edit.

    If the answer is **Copy**, then the file (or files) will be copied to the Unpublished Documents for the project/shell. This new file in the Unpublished Documents is linked to the BP record. The original file stays as is, and it is not linked to the BP record. The record can be moved to the next step or finish edit.

For both the **Move** and **Copy** option, if the destination location already has a file with the same name as the file that is being moved or copied, the existing file will be revised with the new file from the BP. And if:

▶ The same name file in the destination is already checked out, the system revises the checked-out file with new file from BP and leaves this new file as checked out in the new location.

▶ The same name file in destination is locked, the system revises the locked file and the newly revised file will be locked (same as if a user revises a locked DM file attached to a BP record).

▶ The source file is in a checked out, or locked state, and at the destination the same name file is also checked out or locked, the destination file state remains (the final file at destination location shows as locked or checked out based on its previous state in same location). In these scenarios (when destination location has a file with same name), the permission to revise the destination file has to be selected.

If the user has the permission:

- In the case of **Move**, the source file revises the destination file with all its revisions. As a result, if source file has two revisions, and the destination file has three revisions, the final file in the destination location after the move will have five revisions (two revisions from source file added on top of the three revisions in destination file).
- In the case of **Copy**, only the latest revision of the source file revises the destination file.

If the user does not have the permission:

- In the case of move, if **Send** or **Submit** is selected, the system displays the following alert:

  The following attachment(s) cannot be moved to <label of DE uuu_dm_publish_path> as you do not have permissions:

  <File 1 Name>

  <File 2 Name>

  ...

  Do you want to proceed?

- In the case of **Copy**, if **Send** or **Submit** is selected, the system displays the following alert:

  The following attachment(s) cannot be copied to <label of DE uuu_dm_publish_path> as you do not have permissions:

  <File 1 Name>

  <File 2 Name>

  ...

  Do you want to copy these attachment(s) to Unpublished Documents?

If the uuu_dm_publish_path is blank, then:

- If the republish option as **Move** is selected, the file stays at the original location, and the file will not be moved to Unpublished documents.
- If the republish option as **Copy** is selected, the latest revision of that file is copied into the Unpublished Documents.

> **Note:** The above scenarios apply to both Upper Forms and Detail form attachments of a BP record.

When a BP record moves from one step to the next:

- If the next step form has the option **Publish Path is different from current location** checked, the same process occurs (as stated above). If you select **Publish** for an already published attachment again, that attachment will be published to the uuu_dm_publish_path again.

> **Note:** This is the same as when the destination already has a file with the same name as the one being published is triggered (as stated above).

- If the next step form does not have the option **Publish Path is different from current location** checked, the same process occurs as for attachments from DM on a BP record.

> **Note:** If you add any attachment to the BP record from the DM, the attachment moves into the Published Attachments group, on the log. If you add an attachment from a local area, the attachment moves into the Unpublished Attachments group. As the unpublished attachments get published to the DM (upon clicking Submit or routing the record to next step), those attachments move into the Published group.

About Linking Business Process Records to other Business Process Records

You can create a link from one business process to another, or from a line item to a business process. Other users will be able to click the link and view the referenced business process. Linked records are added and viewed from the Linked Records link at the bottom of the BP form. If records have been linked, the number of records will appear next to the Linked Records link.

> **Note**: This option is available only in BPs that have been designed to accommodate linked records. A user's ability to view a linked BP record is based on the user's permissions. If users cannot see the record in the log, they cannot see it in the link.

Linking BP Records to other BP Records

To link a business process record to another business process:

1) Open an existing BP record or create a record.
2) In the right pane of the BP form, click the **Linked Records** tab.
3) Click **Add** (⧉)**.** The **Add Records** window will open.
4) In the **Select Business Process** drop-down menu, select the type of business process of the record you want to link. You can use the **View** drop-down menu or **Find on Page** options to filter the list of available records.
5) From the resulting list of BP records, select the record(s) to link to the open business process form click the single arrow pointing to the right to add it to the **Selected Records** area. You can click the single arrow pointing to the left to remove records from the **Selected Records** area, or press the double arrows in either direction to add or remove all records in the log.
6) Click **Done** when finished.

To link a line item to a business process record:

1) Open an existing BP record or create a record.
2) In the left pane of the BP form, click the **Line Items** tab.
3) Select a line item from the log to link to a BP record.
4) In the right pane of the BP form, click the **Linked Records** tab.
5) Click **Add.** The **Add Records** window will open.
6) In the **Select Business Process** drop-down menu, select the type of business process of the record you want to link.

7) From the resulting list of BP records, select the record(s) to link to the open business process form click the single arrow pointing to the right to add it to the **Selected Records** area. You can click the single arrow pointing to the left to remove records from the **Selected Records** area, or press the double arrows in either direction to add or remove all records in the log.

8) Click **Done** when finished.

To link a line item from a business process record to another business process record by way of consolidation, use the **Actions** drop-down, select **Consolidate Line Items**, and create a line item.

> **Note:** The "Prevent consolidating the same line item across multiple records" option must be enabled to prevent the user from consolidating line items that have already been consolidated. If this option is enabled, the line Items cannot be edited, later. The system ensures that the line items can be consolidated only once, across all the business.

When you link a business process record, using any of the methods explained above, the Linked Records tab shows the Current View for all records and provide the following details:

▸ Direction
▸ Type

The contents of the Type column indicates whether the linked record has been associated automatically (by way of Line Item Consolidation), or manually (by way of manual linking).

▸ Business Process
▸ Record Number
▸ Record Title
▸ Record Location

- If the BP is a company-level BP, the Record Location shows the Company Workspace tab name.

- If the BP is a Project-level BP, the Record Location shows the Project name.

- If the BP is a Shell-level BP, the Record Location shows the Shell location.

> **Notes:**
> - You cannot remove the link Type: Line Item Consolidation.
> - If there are multiple line items consolidated from the same BP record, then the BP record will be seen as a linked record for that many line items.
> - If the line item with the link Type: Line Item Consolidation moves to the status, "Previously consolidated lines are available when terminal status equals" or is terminated, the link will be automatically removed.

Manage Linked Records

To view a linked record:

1) Open a BP record and click the **Linked Records** tab in the right pane. If you are opening a linked record associated with a line item, select a line item tab and select the line item.

2) From the Links Log, hover over the record link, click the *gear menu* (⚙), and click **Open**.

To remove a linked record:

1) Open a BP record and click the **Linked Records** tab in the right pane.

2) From the Links window, hover over the record link, click the *gear menu* (⚙), and click **Delete**.

> **Note:** From this window, you cannot delete a record with a From direction. To delete the record, you must open that record, click the **Linked Records** tab, and remove it from the Links window.

Working with Linked Mail

The **Linked Mail** tab lets you link existing emails (Mailbox items) or compose new emails to a BP record. On any action form, you can view the referenced mail. Click the **Add** drop-down menu to view the following options:

▶ **Mailbox:** To link mail from your Mailbox
▶ **Project Mailbox:** To link mail from the Project Mailbox
▶ **New Mail:** To compose emails and add attachments from your computer or Document Manager. After the mail is submitted, it gets linked to the record and displayed in the **Linked Mail** tab.

When the **Linked Mail** tab is maximized, the left section displays the grid, and the right displays the functions, content, and attachments of the selected mail. If you are a participant in the email, you can see the action buttons: **Reply**, **Reply all**, and **Forward**, as well as the **More** drop-down menu, which has options to **Flag**, **Clear Flag**, **Print**, and **Delete**. If you are not a participant in the mail, you can see the option to **Print**.

Opening or Deleting mail

From the grid, click the *gear menu* (⚙) and select **Open** or **Delete**. Alternatively, you can double-click the mail, in the grid. When you select multiple mailbox items, the only option available is **Delete**.

Viewing content of the linked record

To view the full content of the linked record, double-click an entry in the grid.

Composing Linked Mail

You can create and send a Mailbox message from the BP record. You must send the message before sending the BP to automatically link it to the BP record. The Mailbox message will be stored in the Project Inbox, the **Sent Items** node in the Home tab (Home workspace), and the Inbox of recipients. In addition, if you or the recipient reply to the message, the reply will also automatically be linked to the BP record.

> **Note:** If you create a Mailbox message and save it without sending, it will remain in your Mailbox Draft log in the current project/shell.

To compose a message to link to a BP record:

1) Select a BP record.
2) From the right pane, select the **Linked Mail** tab.
3) Click **Add** ✉ and select **New Mail**.
4) Compose your message and click **Send**. The following additional options are displayed: **Save**, **Delete**, **Attach**, **Flag**, **Clear Flag**, **Print**, **CC**, and **Bcc**.

After the mail is sent or saved, it will appear in the Linked Mail grid.

Adding from Project Mailbox

In addition to composing linked mail, you can link mail that exists within a mailbox to a business process. The Project Mailbox option will be seen only if user has permissions to the Project Mailbox.

To link message from the Project Mailbox to a BP record:

1) Select a BP record.
2) From the right pane, select the **Linked Mail** tab.
3) Click **Add** ✉ and select **Mailbox** or **Project Mailbox**. The Add from Mailbox window is displayed.

4) Use arrows to select the messages you want to link from the Available Items column to the Selected Items column.

5) Click **Done**.

Manage Linked Mail

You can view or remove linked Mailbox messages.

To view linked Mailbox messages:

From the Linked Mail window, click the *gear menu (* ⚙ *)*, and then click **Open** or double-click the email. The Message window opens.

To remove a linked Mailbox message:

From the Linked Mail window, click the *gear menu (* ⚙ *)*, and then click **Delete**.

Reply To or Forward a Linked Mailbox Message

If you receive a Mailbox message with the caption, **This mail and any future replies are linked to business process records**, beneath the subject line, that Mailbox message is linked to one or more BP records. If you click **Reply**, **Reply All**, or **Forward** and then send your response, the reply will also automatically be linked to the BP record.

View the List of Linked BPs from a Mailbox Message

To view linked BP records from a Mailbox message:

1) Open the business process record.

2) Click the **Linked Mail** tab. The Linked Mail window opens, showing the emails that are attached to the record.

3) Select the email you want to view, and use the *gear menu (* ⚙ *)* to click **Open** or double-click the email. The system opens the email.

4) Below the Subject line is an information icon with the following caption:

   This Mailbox and any future replies are linked to business process records.

5) Click the **business process records** link. The system opens the Linked Business Process Records window, which shows a list of all business process records to which this email is attached.

   You can select a business process record from the list to view its record details in the right pane.

Send and Manage Linked Mailbox from RFB Forms

The *Request for Bid (RFB) Business Processes* (on page 266) have special linked Mailbox functionality within the **Proposal Management** tab. For RFB business processes, the creator of the RFB form is allowed to correspond with internal users or with RFB bidders. Unopened emails are displayed in boldface type to indicate that they have not been viewed.

When you *send* an email to a bidder, the system includes information in the subject line that helps the recipient identify that the message is for an RFB and it lists the RFB Record Number. The body of the message includes additional information, such as the Record Number and Title, and indicates the type of change made to the RFB.

When you *receive* an email from a bidder, the system includes information in the subject line that helps you identify that the message is for an RFB, it lists the RFB Record Number, and it indicates that the recipient received the original RFB request. The body of the message includes additional information, such as the Project Name and Project Number, critical bidder information such as the name of the company, first and last name of the contact, and the contact's email address, and a text field in which the bidder has entered additional information.

To send a Mailbox message from an RFB form:

Open the RFB BP form and click the **Proposal Management** tab. You can send a message to internal users of the system, which includes your Unifier Essentials project/shell team, or to invited bidders.

To send a message to an internal user:

1) Click the **Mail** tab in the right pane.
2) Click **Add** ✉️ and select Mailbox or Project Mailbox to add existing mail from another mailbox, or select New Mail to compose a new message.

To send a message to a bidder:

1) In the left pane, hover over the desired bidder and click the *gear menu* (⚙️).
2) Click **Send Mail** to compose a message.

> **Note:** You will not be able to save a draft copy of composed mail if it is being sent to a bidder.

Bidders will be allowed to view and access Mailbox after they are signed in to the system using a special sign in.

Bidders can also create and add Mailbox messages from the RFB form. The **To** field is auto-populated with the requestor name. The **Cc** and **Bcc** buttons are not available; however, bidders can fill in external **Cc** and **Bcc** fields with external email addresses. When bidders reply or forward Mailbox messages, these will be linked with the record.

Bidders will not be able to create any new Mailbox after the bid due date.

To view a list of emails sent:

1) Click the **Mail** tab in the right pane.
2) Use the column headings to sort the list by **From**, **To**, **Bidder Company**, **Subject**, or **Date**, or use **Find on Page** ≡q to specify search criteria.

Attaching External Emails from the Project or Shell Mailbox to a Record

The system collects all external emails it receives for a project/shell in a dedicated mailbox. You can attach these external emails directly to a business process record. Other users can view the email from a link on the record. A single email can be attached to more than one business process record.

External emails that have been blind copied (Bcc'd) are not collected by the **Mailbox**.

To attach an external email to a record:

1) Open the business process record to which you want to attach the email.
2) Click the **Linked Mail** link at the bottom of the form. The Linked Mail window opens.
3) Click **Add** and choose **Mailbox** or **Project Mailbox**. The **Add from Mailbox** or **Add from Project Mailbox** window opens, showing a list of the external emails that have been received for the project/shell.
4) Select the emails you want to attach to the record, and click the **right arrow** button.

   The system adds the email to the Linked Mail window.
5) Click **done**.

To open an external email attached to a record:

1) Open the business process record.
2) Click the **Linked Mail** link at the bottom of the form. The Linked Mail window opens, showing the emails that are attached to the record.
3) Select the email you want to view, and use the *gear menu* (⚙) to click **Open**. The system opens the email.

   From this email window, you can:
   ‣ Reply to the sender
   ‣ Forward the email to others in the project/shell
   ‣ Flag the email for follow-up
   ‣ Clear a Flag from the email
   ‣ Delete the email
   ‣ Print the email

   > **Note:** You must have permissions to view, reply to, or delete external emails.

To view linked BP records from a Mailbox message:

1) Open the business process record.
2) Click the **Linked Mail** button. The Linked Mail window opens, showing the emails that are attached to the record.
3) Select the email you want to view, and use the *gear menu* (⚙) to click **Open** or double-click the email. The system opens the email.
4) Below the Subject line is an information icon with the following caption:
   This Mailbox and any future replies are linked to business process records.

5) Click the **business process records** link. The system opens the Linked Business Process Records window, which shows a list of all business process records to which this email is attached.

You can select a business process record from the list to view its record details in the right pane.

Sending Attachments for E-Signature

If your administrator has used the **Integration** node to configure and activate **DocuSign** or **Acrobat Sign**, then when you access your BP record Upper Form or Detail Form and open the properties window, you can use the **Attachments** tab to send the attachment for signature.

The toolbar options and column headings for the **Attachments** tab are:

Item	Description
Attach Files (paper clip icon drop-down)	Lets you select a file by way of: ▶ **Browse** ▶ **Document Manager** ▶ **Custom Print**
Publish to Document Manager	This column displays the hierarchy and the location of the attachment.
Name	This column displays the name of the attachment.
Comments	This column displays the comments associated with the attachment.
Revise	This column displays the revision information about the attachment.
Envelope Code	If you are using envelopes in DocuSign or Acrobat Sign and a document or group of documents was submitted for an e-signature request, this column displays the code assigned to the envelope that contains the applicable documents. If an envelope is resubmitted for signatures, the code is overwritten with a new code.
Upload Date	This column displays the date that the attachment was uploaded.
Title	This column displays the title of the attachment.
Other information about the attachment	These columns display other information related to the attachment such as Pub. No., Rev. No, and so on.

When you select an attachment in the **Attachments** tab, you can click the *gear menu* (⚙) and conduct the following operations:

- ▸ **Review**
- ▸ **Open in Office for the web**
- ▸ **Download**
- ▸ **Revise**
- ▸ **Rename**
- ▸ **Remove**

If DocuSign or Acrobat Sign is enabled for use, the *gear menu* also includes **Self-sign**, **Send for E-Signature**, and **Recall E-Sign Request** options, which are displayed or hidden depending on the status of the attachment. To sign documents within Document Manager and Business Processes using DocuSign or Acrobat Sign, you can select one or more documents and send them to one or more assignees for an electronic signature (e-signature). If you are using envelopes in DocuSign or Acrobat Sign, you can group documents into a single envelope. When the documents included in an envelope are returned to Unifier Essentials, they are consolidated into a single PDF instead of returning as individual attachments.

In addition, you can select a document in the Document Manager or a Business Process and self-sign it using DocuSign or Acrobat Sign. The **Self-sign** option is available for BP record upper as well as line item attachments. When you conduct a self-sign, the file opens in DocuSign or Acrobat Sign. The status of the signature is reflected in the **Attachments** tab log, **E-signatures** column. After the file is signed (E-Signature status = Completed), the signed file gets added as a revision of the original file (as a pdf file and name appended by "_signed" and indicating the number of times the file was sent for e-signature).

Business Process records

In the **Attachments** tab for BP Upper form, or detail form:

- ▸ If you select multiple attachments for which the E-Signature process has not started, or it is complete, the system displays the **Send for E-Signature** option. After you select this option, the **Send for E-Signature** dialog box appears and you can complete the following steps:

  1. In the **To** field, enter the names of Unifier Essentials users who should review and sign. (You can also use the pick list to select recipients.) If there are non-Unifier Essentials users who should review and sign, enter their email addresses in the **External** field.

  2. Complete the **Subject** and **Message** fields, and click **Send**.

     If the number of files selected or the size of the files exceeds the limits defined by DocuSign or Acrobat Sign, the system displays an error message. Make the applicable adjustments and try again.

- ▸ If the E-Signature process of any of the selected attachments is ongoing, the system hides the **Send for E-Signature** option.

▸ If you select multiple attachments such that their E-Signature process for at least one of them is In-Progress, when you right-click, the system displays the **Recall E-Sign Request** option. If you select this option, a confirmation message appears that indicates *all* files associated with the selected envelope (or envelopes) will be recalled. If you click **Yes**, the files are recalled and the E-Signature status is set to Recalled on the Document Manager log, E-Signature node, Attachments tab, and File Viewer.

> **Note:** Adding an attachment as a custom print is available regardless of whether E-signatures have been configured for the company or not.

In the **Attachments Review** tab:

▸ The E-Signature status in the Review window is set as recalled.
▸ For each selected attachment with E-Signature status as complete, or not started, the system ignores the recall request.

The Review window (similar to the Attachments tab for BP Upper form, or detail form) displays the Send for E-Signature and Recall E-Sign Request actions by way of the:

▸ Gear menu (⚙)
▸ Right-click

The right-click options will be visible based on the E-Sign Status of selected attachments. Use the right-click options to send, or recall, multiple attachments for E-signatures. The **Recall E-Sign Request** option is available only to the:

  ▸ E-Signature request sender
  ▸ Document Owner

> **Note:** Other users will not be able to view or act even if all other conditions are met.

E-Signature Log (Declining an E-Signature)

If a signee declines an E-signature request, the E-Signature log captures the E-Signature status as Declined. When the E-Signature Status = Declined, the tooltip (triggered by placing the pointer on the status), or the *gear menus (⚙)*, displays the reason for decline.

E-Signature Node (E-Signature request)

When you select an E-Signature request from the E-Signatures node, you can see the E-Sign log in the right pane (E-Sign Log). This contains the message that was sent at the time of sending the E-Signature request and a log of all signature requests' statuses. When you expand the Attachments tab for BP Upper form, or detail form, if a file has E-Signature requests associated with it, the right pane displays the E-Sign Log tab next to the preview tab.

Publish from BP to DM

If you attach a file in the DM to a BP record and send it for E-Signature from the BP record, the revised (signed) file will be published back into the DM at the same location from where the original file was attached. This is irrespective of the publish path on the BP record.

The ability to re-publish DM Document from a BP record lets you choose to republish (move or copy) a revised DM attachment.

Adding an Image

In some forms, you can add an image to your project/shell. For example, you can add an image that shows progress on the project/shell information record, or you can add pictures of assets related to a specific asset record. You can add images to attribute forms in projects/shells, companies, and business processes.

If the Image picker functionality has been added to your project/shell, forms with the functionality display the image name and a virtual box that will hold the uploaded image.

> **Note**: The image name is based on the data element name provided in the design.

To add an image:

1) Open a BP form.
2) Locate the **Image** section of the form from the main tab.
3) Select **Browse**, to search for a file from your computer, or **Document Manager**, to search for a file from the Document Manager.

   Valid image file types are:

   ‣ .jpg
   ‣ .jpeg
   ‣ .gif
   ‣ .png
   ‣ .tif

   You can change the image by replacing it with another uploaded image. Images appear on the HTML or PDF formats of printed forms. They appear in print preview as well. The Image picker can be added to all forms except for those in the Cost Manager and the Document Manager.

> **Note**: The image appears online in the system, but it is not available for printing. Also, images do not appear in UDRs or email notifications.

Adding or Updating a Hyperlink

In some forms, you can add a hyperlink to your project. For example, you can add a hyperlink to equipment documentation, details on a resource, or external websites that contain information pertinent to a BP record. You can add hyperlinks to attribute forms in projects/shells, companies, and BPs.

If the Hyperlink picker functionality has been added to your project, forms with the functionality display a hyperlink name, such as vendor website or internal web page.

To add a hyperlink:

1) Click the hyperlink area on the form (blue link ⊘).
2) Enter the hyperlink name and the Uniform Resource Locator (URL).

   Only the URL is required. If you enter the name and the URL, the hyperlink displays as the name you entered. If you only enter the URL, the hyperlink displays as the URL.

3) Make sure that the URL adheres to accepted formats, such as starting with an approved protocol, followed by **://**, and then followed by a host name or domain name.

   The system validates the specified URL based on the Uniform Resource Identifier (URI) provided by the administrator for your organization, if applicable, and on current standards for URLs.

   Examples of HTTP and HTTPS URLs:

       http://MyCompany.com

       https://YourCompany.net

   Examples of URLs that might include URIs authorized for use by your administrator:

       ftp://UserName:Password@MyCompany.edu

       ftp://private.ftp-servers.sample.com/MyDirectory/MyFile.txt

   > **Note**: The URL should not reference the same domain that Unifier Essentials is using for operation. If you attempt to use the same domain, a warning message will result.

4) Click **Done**.

To update a hyperlink:

1) Click the hyperlink area on the form (blue link ⊘).
2) Below the **URL** text box, click **Clear** to remove the existing hyperlink.
3) Enter a new hyperlink name and URL.
4) Click **Done**.

Viewing Referencing Records

For any business process with referencing records, the system can show you a Reference Records window that displays a graph and a list of the records that the record you are viewing refers to, as well as those records that refer to the record you are viewing. (To see the records, you must have view permissions.)

For example, you might want to view all the change orders that refer to a particular purchase order. For other examples, you could view:

▶ All the invoices that a commit business process **refers to** so that you can reconcile all the invoices against the purchase order.
▶ All the change order requests that are **referred to by** a specific change commit business process to track the progress of a construction project.

▶ All the base commits that are **referred to by** a vendor record to review payment progress.

Business process records can reference other records and be referenced using the following features:

▶ A BP picker on a business process record, including line items
▶ A BP line item picker on a business process record
▶ Auto-creation of a record through meeting specific criteria set up by your administrator
▶ A data picker

View a List of Referencing Records

The Reference and Linked Records section of the reference records window displays the reference records and the linked records associated with the BP record (both from the Upper form and Detail forms), but the graphical section of the reference records window does not display the linked records.

The grid section of the reference window lists all the linked records associated with the line items including the ones established by means of consolidation.

The record details of the consolidated line item are also displayed in the grid section, and you will be able to open the record from the grid.

To view a list of referencing records:

1) From the business process log, open the record.
2) In the right pane, click the right arrow until you see the **Reference Records** tab. The Reference Records window opens.

   The Reference Records window has two components, a graphical representation of the referenced records and a list. The records shown on this window include records from across shells.

   The graphic displays:
   ▶ Records that the business process references (that is, references to other business processes)
   ▶ Records that reference the business process (that is, other business processes that reference the BP you are looking at)

   The list displays:
   ▶ Records that the business process references (that is, references to other business processes)
   ▶ Records that reference the business process (that is, other business processes that reference the BP you are looking at)

▸ Records that have been linked to the business process via the Linked Records feature (*About Linking Business Process Records to other Business Process Records* (on page 140))

▸ Line items that have been linked to the business process via the Linked Records feature.

> **Note**: If the record does not reference any records, the only item in the **Reference Records** log will be itself.

What you can do on the Reference Records Graphic window

With the Reference Records Graphic, you can:

▸ **View high-level record information**

When you first open the graphic, it displays the original parent record that you opened, along with all child records that are directly attached to it. Child records are color coded based on their BP type. If you hover over a record, the system will display the type of record, record number, and record status. The direction of the connection is indicated by a gray arrow, pointing from the parent record to the child record.
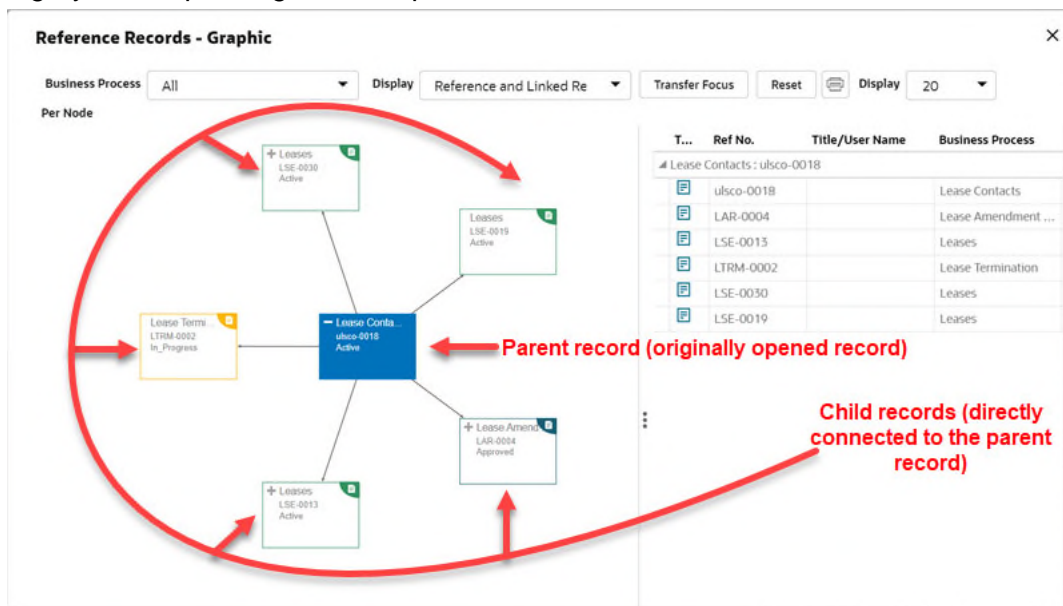
On the right pane is a log that displays all the visible referenced records, as well as linked records and line items. Each parent record has a list of all connected child records underneath, which can be collapsed or expanded by clicking the gray arrow next to the record name. The icon in the first column indicates the type of connection that exists between records. If it is a referenced record, a blue page icon is displayed. If it is a linked record, a blue link icon is displayed. If it is a linked line item, a yellow link icon is displayed.

▸ **Rearrange records**

You can rearrange records by clicking and dragging each record to a desired space in the graphic window.

> **Note:** You cannot click and drag multiple records at a time. Each record must be rearranged individually.

▸ **Expand the graphic**

You can expand the records in the graphic by clicking the **Plus** icon in the top left corner of a record. All records that are connected to that record will appear with arrows connected to them. If the expanded record is also connected to a record that is already visible, an arrow will appear connecting the two. After it is expanded, the **Plus** icon will be replaced with a **Minus** icon, which you can use to collapse the record. If there is no icon, that means there are no more child records to that record.

▸ **Move the display (convenient for large graphics)**

You can click and drag any open space in the graphic to move the display, using the mouse wheel to zoom in and zoom out.

▸ **Filter visible items on the graphic**

There are many ways to filter information on the graphic to focus on specific information. As information is updated on the graphic, the log in the right pane is updated as well. The **Business Process** drop-down menu lets you hide all records except for records of the selected business process type. You can also change the **Display** of the graphic based on the:

- Type of connection
- Number of connected records

In the first **Display** drop-down menu, you can filter the graphic to view only linked records, reference records, or both. In the second **Display** drop-down menu, you can restrict the number of child records that can appear when expanding a record by setting the value to 20, 50, 100, or 200.

▸ **View or edit a record (if you have permissions)**

From the graphic, you can open a record by double-clicking it from the log or the graphic. In addition, if you have permissions, you can edit and act on the record the same way you would by opening the record directly from a Unifier Essentials log. When you finish the edits and close the form, the system will return to the Reference Graphic window. The records you can edit must be at the same level as the focused record. If the referenced record that you open from the graphic resides at another level (such as in a different project/shell or at the company level), you will not be able to edit it; it will open in view mode only, regardless of your permissions.

Notes:

- If you change the record (including referencing links, linked records, title, status, and so on), the graphic and the reference list on the right pane will not reflect these changes until you click the Expand, Collapse, Reset, or Transfer Focus buttons.

- The edits and actions you take on the form from the Reference Graphic window will behave in the same way they would if you opened the record from a log; that is, roll-ups will occur, workflow actions and auto-creations will proceed, email notifications will be sent, and so on.

- If you have only view permissions, regardless of where the record is in the workflow, the system will display the view form from the End step of the workflow.

▸ **Print the graphic**

Click the **Print** button to open the standard print window for your browser.

▸ **Transfer the focus of the graphic to another record and its references**

You can change the focus of the graphic to another record and display all its referencing records. The record you transfer to will change to blue to indicate that all referencing records shown on the graphic are now connected to the new record. In addition, the list on the right panel will change accordingly.

▸ **Reset the graphic**

To set the graphic back to its original state, click **Reset**. This will undo all display changes, record expansions, and focus transfers.

Participating in a Workflow

Each step in the workflow is set up individually. Step-by-step, the administrator can define responsibilities for users and groups through task assignments, completion policies and resolving action settings, and email notification settings. Non-administrative users can complete business process forms, select **Workflow Actions**, and assign task recipients. They can track business process routing between steps and trace a record's path through the workflow.

Completion Policies and Resolving Actions

Your administrator sets a "completion policy" on each step in a workflow. This policy determines when the step is complete and where the step proceeds from there. A step can be complete under the conditions listed below.

▸ **Single** completion policy: Any single user can accept a task and complete it, and the record will move forward to the next step.

▸ **All-Majority** completion policy: All assignees to the task have responded to it and a majority has agreed on the action that moves the record forward to the next step. If there is no clear majority on the action, the system will use a *resolving action* to determine how the record moves forward.

▸ **All-Consensus** completion policy: All assignees to the task have responded to it and all assignees have agreed on the action that moves the record forward to the next step. If there is no consensus on the action, the system will use a *resolving action* to determine how the record moves forward.

> **Note:** If the Completion Policy for a step is set to **All-Consensus** and **Auto Creation** is enabled, automatic creation of the applicable items begins after *all* assignees have agreed on the action.

A **resolving action** moves the step to either a following step, a previous step, or a conditional step that essentially "re-addresses" or "revisits" the task. This step must be completed before the workflow can continue. The assignees on this resolving action step can include the original task assignees and can also include new assignees.

If there is only one action in the Workflow Actions drop-down list, the system defaults the selection. As a result, the system updates the **To** and **CC** fields with the relevant users and groups. When you click **Send**, if the list of users changes based on either an assignee filter in the workflow setup or via conditional routing, the system displays a window informing you that the list of users will change. After the list of users is changed, you must click Send again. The list of assignees changes to reflect the change in the next step and will be displayed when you save the workflow BP record.

> **Note:** Clicking **Send** will not route the BP record if the conditional routing is not resolved.

If the Admin sets up the Business Process policy, you can choose that a step be completed without all assignees having to act on it, if the result can be determined without the assignee action. This is to prevent unnecessary delays in waiting for all users to act on the record before moving it to next step.

If the Admin sets the Completion Policy for a step in a business process workflow setup as **All - Majority** and checks the option **Advance workflow when next step is determined**, then during runtime, when a record for this business process reaches this step, as soon as the majority of the step assignees take the same action at this step, the step will be completed and the workflow moves to the selected step.

> **Note:** One or more assignees on the step could choose to decline acting on their tasks. In this case, the majority count is determined by dismissing the count of users who declined the task.

Example

There are four assignees on a step. Two of the assignees take the same action. The third assignee declines the task. As soon as the third assignee declines, because the majority (two of the assignees) have taken the same action, the record will move to the next selected step.

In addition, the **Workflow Progress** tab (in the BP log and within the BP record) gets updated correctly (with the correct "Status" and "Action") for all the users who acted on the step. For all users who did not act on the step:

▸ The "Status" gets updated as: Closed.

▶ The "Action" remains blank.

If the Admin sets the Completion Policy for a step in a business process workflow setup as **All - Consensus**, and checks the **Advance workflow when next step is determined** option, then during runtime:

When a record for this business process reaches this step, and:

▶ As soon as one assignee on the step takes the "Resolving action" as chosen in the BP setup in Admin mode, or
▶ As soon as two assignees on the step take two different actions on the step

Then, this step will be completed, and the workflow moves to the "Resolving action" step; otherwise, if all the assignees take the same action (which might be different from the resolving action), the record moves to the step, as chosen by the assignees.

The "Workflow Progress" tab (in the BP log and within the BP record) gets updated correctly (with the correct "Status" and "Action") for all the users who acted on the step. For all users who did not act on the step:

▶ The "Status" gets updated as: Closed.
▶ The "Action" remains blank.

For both **All - Majority** and **All - Consensus** completion policies, if an assignee accepts the task and has been working on a draft record, and while the assignee has been working on a draft record a majority or consensus has been reached, the draft will be deleted, and the record moves to the next step.

> **Note:** In case the assignee has who has worked on the draft had added new line items, or edited existing line items, the changes will be retained when the record moves to the next step.

Statuses

The statuses you see on this window are internal to the system and are used only to display the status of the workflow step **relative to the completion policy**. These statuses are:

Status	Description
Not Started	The assignee has not accepted the task.
In Progress	The assignee has accepted the task.
Locked	This status is used when the step has a single completion policy and one of the assignees accepted the task. This status denotes those assignees who were also assigned to the task, but because of the single completion policy, the task was locked and these assignees no longer have access to it.
View Only	This status indicates that this user was

Status	Description
	cc'd on the task, but is not expected to act on the task.
Completed	This status is given to an assignee's action if the task was finished and needed no resolving action. At any step, a task can have only one status of "Completed."
Closed	This status is given to an assignee's action if the task was finished but triggered a resolving action. The task will either return to a previous step, move forward to a next step, or divert to a conditional step, which will resolve the condition and move the task forward in the workflow. The step the action moves to for resolution will show a status of "Not Started." The number of times the task shows a "Closed" status indicates the number of times the step has been revisited.

Working with Tasks

The system helps you collaborate with your team members through business processes. Your tasks are business processes that are in process and with which you are involved.

After you create and send a workflow business process, the system creates a task for each of the assignees in the next step in the workflow and sends a message to each user that has been Cc'd.

In general, you are assigned a task when you are part of a BP workflow, and you are requested, or required, to take some sort of action.

The following tasks are *not* listed in your **Tasks** log:

▸ Tasks for view-only.
▸ Tasks for inactive Projects/Shells.

If you are designated as an assignee on a task, you will receive an email notification, and the task will appear in your Tasks log.

Taking Action on Your Task

To act on your task, you can use the following sub-options of the **Actions** option:

▸ **Action with Preview**
▸ **Action without Preview**

For **Action with Preview**:

1) Go to your **Tasks** log and Ctrl+click the tasks that you want to modify.
2) Click the **Actions** drop-down list and select **Action Preview**.

   The system opens the record that you have selected in a separate window.
3) Modify the record.
4) Click **Save**.
5) Click **Close Window**.

If your tasks have been accepted, the **Action with Preview** option will not be available.

For **Action without Preview**:

1) Go to your **Tasks** log and Ctrl+click the tasks that you want to modify.
2) Click the **Actions** drop-down list and select **Action without Preview** to open the **Action Without Preview** window.

   The **Action Without Preview** window is divided into two panes:

   ‣ Use the left pane to edit the **Upper Form** of your business process and perform workflow action (**Workflow Actions**).

   Use the **Workflow Actions** to send records to the next step in the workflow, after completing the task, and assign record status such as pending, in-review, and so forth.

   The system automatically selects the checkbox under the **Update** column when you type into or modify a field. You can deselect it if you do not want to modify the field at this time.

   The system updates the field values if you select the checkbox under the **Update** column of that field.

   - If you change the value of a field and select the checkbox under the **Update** column of that field, the system will update the value of that field.

   - If you erase the value of a field (blank) and select the checkbox under the **Update** column of that field, the system erases the pre-existing value of that field.

   ‣ Use the right pane to preview the status of the task (**Action Status**).

   The Action Status indicates whether your update was a success or not (using a green check-mark symbol or a red x symbol, respectively), and a message explaining why an update has failed.

   You can use Action without Preview to create multiple shells using the Project/Shell Creation business process. The Action without Preview functionality in the **Tasks** log supports data elements such as Shell Location and Shell Template pickers (existing in the Upper Form) that are required for shell creation.
3) When finished, click **Close**. The system will update the tasks.

For more information, see *Editing Business Process Records* (on page 176).

Taking Action on Multiple Tasks at the Same Time

Use the **Actions** option to take similar actions for multiple tasks.

You can select multiple tasks (Ctrl+click), click **Actions** drop-down list, and perform the following actions:

‣ **Accept**
‣ **Undo Accept**

- **Hide**
- **Unhide All**
- **Print**

You can use the following options to modify multiple records:

- **Action with Preview**
    - To open multiple records (one record at a time) and modify the contents.
    - The **Action with Preview** option can be used when records belong to different business processes and different workflow steps.
- **Action without Preview**
    - To open multiple records in **Action Without Preview** window and modify the contents.
    - The **Action Without Preview** option can be used when records belong to the same business process, records have the same workflow name, and records are on the same workflow step.
    - When tasks are updated through the **Action Without Preview** option (in the **Tasks** log), the values of the Data Elements (DEs) that have "Reset" property will not be reset.

The following provides more details about modification of multiple records.

Taking similar actions for multiple tasks that belong to the same business process, and the same step

1) Go to your **Tasks** log and Ctrl+click the tasks that you want to modify.
2) From the toolbar, click **Actions**, and select **Action without Preview** to open the **Action Without Preview** window.

    The **Action Without Preview** window is divided into two panes:

    - Use the left pane to edit the **Upper Form** of your business process and perform workflow action (**Workflow Actions**).

    Use the **Workflow Actions** to send records to the next step in the workflow, after completing the task, and assign record status such as pending, in-review, and so forth.

    The system displays Master DE, value set DE, and the behavior set DEs (Required, Disabled, Disabled and Clear). If the data element is disabled, it is based on the Master DE and value set DE in the DDS configuration.

    - The elements of a DDS, especially behavior set DEs, play a role on many of these actions. This is due to Bulk Update retaining any change brought on by a behavior set DE. For example, if the fields become **Disabled and Clear** based on the values selected in the Master Data Element, the fields become disabled with no values.
    - When you select **Disabled and Clear**, other formula fields are re-evaluated.
    - A similar reaction occurs when updating records, as the **Update** checkbox also becomes disabled.

    The system automatically selects the checkbox under the **Update** column when you type into or modify a field. You can deselect it if you do not want to modify the field at this time.

    The system updates the field values if you select the checkbox under the **Update** column of that field.

- If you change the value of a field and select the checkbox under the **Update** column of that field, the system will update the value of that field.

- If you erase the value of a field (blank) and select the checkbox under the **Update** column of that field, the system erases the pre-existing value of that field.

  ▸ Use the right pane to preview the status of the task (**Action Status**).

  When working with multiple tasks, you (the assignee) can select multiple records of the same business process and same step and perform the action in one place.

  The Action Status indicates whether your update was a success or not (using a green check-mark symbol or a red x symbol, respectively), and a message explaining why an update has failed.

3) When finished, click **Close**. The system will update the tasks.

Taking similar actions for multiple tasks that do not belong to the same business process, and the same step

The **Action without Preview** option can be used to take bulk action on tasks that belong to different business processes, or on the tasks that belong to the same business process and workflow, but are on different steps in the workflow.

1) Go to your **Tasks** log and Ctrl+click the tasks that you want to modify.
2) From the toolbar, click **Actions,** and select **Action Without Preview**.

   The system opens each record that you have selected in a separate window.

3) Modify the record.
4) Click **Save**.
5) Click **Close Window**. The system opens the window of the next record.
6) Continue modifying the records, **Save**, and click **Close Window** until finished.

If your tasks have been accepted, the **Action with Preview** option will not be available.

Additional information about taking actions for multiple records

▸ You can update a maximum of 200 records using Workflow update (**Workflow Actions** in the **Action Without Preview** window).

▸ Only the Upper Form is modified during Workflow update (**Workflow Actions** setting in the **Action Without Preview** window).

▸ The Workflow update (**Workflow Actions** setting in the **Action Without Preview** window) is not supported on tasks that are on the Initiation step.

▸ When you send the record to the next step, the system performs validation for the required fields.

▸ At the company level and project level, when you are acting on multiple tasks, you must have **Allow Bulk Edit** permission for each task.

▸ For bulk update, the fields are from both Upper Form and Details forms (drawn from integration templates). Some business processes do not support integration. As a result, you cannot take multiple actions on these business processes because integration is used in multiple action.

For more information, see *Editing Business Process Records* (on page 176).

Accepting Your Tasks

You must accept a task to complete it.

The best way to accept a task is from the Home workspace: Go to the **Home** workspace and select **Tasks** in the left Navigator. You can also accept a task from the specific business process log, provided you have permission to the log (Company Workspace and Project/Shell). See *Accepting Your Tasks* (on page 162) for details on how to access the Tasks node in the Company Workspace or Project/Shell.

> **Note**: If the Project/Shell in which a business process resides becomes View-Only, any in-process records will be placed on the View form of the current step of the workflow. If the project/shell is re-activated, the business processes will revert to the Action form.

To *accept* a task from the Home workspace:

1) Go to **Home** workspace and click the **Tasks** node.
2) Hover over the record and click the *gear menu* (⚙).
3) Click **Accept**.

   Alternatively, you can also click **Actions** and then click **Accept**. or use the Task Status (the check-mark icon).

To *accept* a task from the specific business process log (Company Workspace and Project/Shell):

1) Go to your business process and open the log from the **Tasks** node.
2) Hover over the record and click the *gear menu* (⚙).
3) click **Accept**.

   Alternatively, you can also click **Actions** and then click **Accept**. or use the Task Status (the check-mark icon).

To *accept* multiple tasks (of the same BP and same workflow schema):

1) Go to Home workspace, or your business process, and open the log from the **Tasks** node.
2) Ctrl+click to select the necessary tasks.
3) Click **Actions** and then click **Accept**.

Every task you complete will be deleted from the **Tasks** log (**Tasks** node). Those you do not complete will remain on your **Tasks** log.

Additional information about accepting your tasks

Task Notifications

▶ If the task belongs to the Create step of a workflow, you will receive a message confirming that the record was (or was not) created successfully.
▶ If you open a task from a project/shell that is on-hold, the system will notify you and delete the task from the log.

Initiation Step

In general, if a business process has been auto-created and sent to an **Initiation Step**, you will usually need to select a workflow schema to launch the business process into the workflow. When you accept the task, the system displays a **Select Workflow** window, where you must choose the workflow schema this business process should use. See ***Creating a Business Process (BP) Record*** (on page 43) for more information.

The system does not display the **Select Workflow** window if:

▶ The BP is a non-workflow business process.
▶ There is only one workflow schema you can choose for this business process.

Undoing Accepting Your Tasks

If you change your mind after accepting a task, you can use the **Undo Accept** option, if:

▶ You are the last person on the task distribution list and everyone else has declined the task.
▶ You are the only task recipient.

The **Undo Accept** option restores the business process form, and data, back to the state it was in just prior to accepting the task, even if you have made some modifications to it. This applies only to additions or changes made between accepting the task and selecting **Undo Accept**.

> **Note:** The **Undo Accept** is not available for **Initiation Steps**.

The **Undo Accept** will roll back the following to their previous state:

▶ Changes to Upper Form fields
▶ Auto-populated fields
▶ Changes to the action details (To and Cc fields)

Any new additions of the following are removed:

▶ Summary, detail, or imported line items
▶ Comments
▶ File attachments
▶ Linked records

These changes are not rolled back:

▶ Changes made to existing line items.
▶ Anything that is deleted, such as attachments, linked records, linked Mailbox, and line items, cannot be restored. The exception is upper form fields, which will be restored to their previous state.
▶ Transfer ownership.
▶ Mailbox messages sent through linked Mailbox.

To *undo an accepted task* from the Home workspace:

1) Go to **Home** workspace and click the **Tasks** node.
2) Hover over the record and click the *gear menu* (⚙).
3) Click **Undo Accept**.

Alternatively, you can also click **Actions** and then click **Undo Accept**, or use the Task Status (the check-mark icon).

To *undo an accepted task* from the specific business process log (Company Workspace and Project/Shell):

1) Go to your business process and open the log from the **Tasks** node.

2) Hover over the record and click the *gear menu* (⚙).

3) Click **Undo Accept**.

Alternatively, you can also click **Actions** and then click **Undo Accept**, or use the Task Status (the check-mark icon).

To *accept* multiple tasks (of the same BP and same workflow schema):

1) Go to Home workspace, or your business process, and open the log from the **Tasks** node.

2) Ctrl+click to select the necessary tasks.

3) Click **Actions** and then click **Undo Accept**.

Declining a Task

Sometimes you have the option of declining a task. If you are the only person assigned to a step in the workflow, or if the creator of the workflow has not granted permission to decline a task, this is not an option.

To *decline* a task from the Home workspace:

1) Go to **Home** workspace and click the **Tasks** node.

2) Hover over the record and click the *gear menu* (⚙).

3) Click **Decline**.

To *decline* a task from the specific business process log (Company Workspace and Project/Shell):

1) Go to your business process and open the log from the **Tasks** node.

2) Hover over the record and click the *gear menu* (⚙).

3) Click **Decline**.

> **Note**: You cannot *decline* multiple tasks.

Completing a Business Process Form

To complete a business process form:

1) Review the form carefully. If you have the proper permissions, you can perform the following functions, if the business process is set up for them or is of the proper type to accommodate them.

   ▸ Make changes or additions in editable fields of the business process.

   ▸ Add, edit, or remove line items or summary line items (see ***Adding and Managing Line Items*** (on page 94)).

- ▸ Add or view file attachments (see ***Working with File Attachments and Markups*** (on page 121)).
- ▸ View or add comments (see ***Adding and Managing Comments*** (on page 112)).
- ▸ Add or review graphic markups to an attached document (see ***Add Markups to a Business Process Attachment*** (on page 130)).
- ▸ Provide a link to another completed BP form. Other participants will be able to click the link and view the referenced BP form (see ***About Linking Business Process Records to other Business Process Records*** (on page 140)).

2) In the **Action Details** area of the form, designate the next assignees (users and groups) who will receive the next step in the workflow as a task. (See ***Assign users to the next step*** (see "***Assigning Users for the Next Step or Sending a Copy***" on page 165)) You can choose the next users to send the BP to if the BP has been set up this way. Some BPs have a fixed workflow. If this is the last step in the workflow, this is not applicable.

   You may also be able to designate the **Task Due Date** for the next assignees. (See ***Modifying Step Due Date*** (on page 168).)

3) When you have completed any necessary edits or additions, select an action or workflow action from the **Workflow Actions** drop-down list. If there is only one possible workflow action for a step, the action is auto-populated in the field. The action you take depends on the task assigned. For example, if this is a review step, an action that you may be able to take is "approve."

4) Click the **Send** button.

   - ▸ If the workflow is not yet complete, the form will be forwarded to the next team members in the workflow.
   - ▸ If the workflow is complete (that is, your input was the last step of the workflow), the record will appear as complete in the business process log.

> **Note:** You can also save your work as a draft at any point. This is recommended if you are going to leave your desk or have a lot of work to do on it. There is no autosave. If you change your mind after making a selection, click the **Undo Action** button, and then choose another action. In Classic View, after you have accepted the task or initiated an action, you can still review what you received prior to doing so without having to undo. Click **View** and then select **Received** or the **Click here to view latest content** button. The system displays another pop-up window of the original record as you received it. ***Assign users to the next step*** (see "***Assigning Users for the Next Step or Sending a Copy***" on page 165)

Assigning Users for the Next Step or Sending a Copy

Assigning users, and workflow routing, must be done after opening a record.

Depending upon the workflow configuration and your user permissions, you may select one or more users or groups to whom the form will be sent as the next step in the workflow. The assignee fields are:

▶ **To:** The users or groups that you choose will be assigned the next task in the workflow. Team members listed will receive an email notification of the task. This can include users designated as Editors on the task, as well as proxy users.

▶ **Cc:** These users and groups receive an email notification and a copy of the BP record in their Message log. They can review the record but cannot act on the workflow.

Depending on the workflow setup, you may also be able to set the due date for the next step.

Assigning Users for the Next Step

You can assign a user for the next step from the tasks log (**Tasks** functional node in Home Workspace, Company Workspace, and Project/Shell).

1) Go to your business process and open the log.

2) Select the record, click the *gear menu* (⚙), and click **Open**.

3) When you are finished editing the form, click **Send** to open the **Workflow Action Details** window.

4) In the **To** field, click the **Select** button to the right of the text box. The **User and Group Picker** window opens. Alternatively, you can start typing in the text box for suggested users based on your entry.

5) Select names from the Available Items list and click **Add Selected** (singular right arrow), or **Add All** (double right arrow) if you would like to add everybody on the list.

6) Click **Done** when finished.

When the business process form is sent, each member will receive an email message regarding their task assignment and a copy of the BP form in their **Tasks** log.

Notes regarding inactive users:

If a task is sent to other users for review, it may be sent back to the initial user for revision. In this case, if the **Include only previous action takers** option is selected for the business process, the match step setting determines the response.

▶ If Assignees is set to Dynamic with **match step <Creation>**, and the user that initiated the last step is *no longer active*, the system displays the following message:

"The system cannot send the record to the next step as step assignee is no longer active. Do you want the system to send an email notification about the error and appropriate action to the Administrator?"

▸ If you select **Yes**, the message is dismissed and the system automatically sends an email to the administrator or administrative group specified in the Business Process setup, as shown in the following image. If the administrator or administrative group is not active, the system sends an email to the company or project/shell administrator. An administrator must transfer ownership of the record because the task cannot be reassigned.

▸ If you select **No**, the message is dismissed and no further action is taken.

In both of the preceding cases, the **To** field in the **Workflow Action Details** window is not populated with any user or group, and the workflow cannot progress until an administrator acts.

▸ If Assignees is set to Dynamic with **match step <any step>**, and the user that initiated the last step is *no longer active*, the system displays the following message:

"The system cannot send the record to the next step as step assignee is no longer active in the project. Select another assignee who is currently active on this step."

After you click **OK** to dismiss the message, the system displays the **Workflow Action Details** window again. In the **To** field, click **Select**, and select a different user based on the filter conditions defined for the workflow setup.

These issues can also occur when records are sent through REST, Bulk Action, Email Action, or using Unifier Mobile.

▸ Bulk Action with Preview and Mobile application: The system behaves as described earlier for match step <Creation> and match step <any step>.

▸ Bulk Action without preview, Email Action, and REST services (UpdateBPRecordV1 and UpdateBPRecordV2):

  ▸ For **match step <Creation>**, the system displays: "The record cannot be sent to the next step as the assignee for {step name} step is no longer active. You can change the record ownership or change the Workflow Setup to send the task to an active user."

  ▸ For **match step <any step>**, the system displays: "The record cannot be sent to the next step as the assignee for {step name} step is no longer active. You can change the Workflow Setup to send the task to an active user."

Sending a Copy of the Business Process Form

If you must send a copy of a business process form to another user:

1) Go to your business process and open the log.

2) Select the record, click the *gear menu* (⚙), and click **Open**.

3) When you are finished editing the form, click **Send** to open the **Workflow Action Details** window.

4) In the **CC** field, click the **Select** button to the right of the text box. The **User and Group Picker** window opens. Alternatively, you can start typing in the text box for suggested users based on your entry.

5) Select names from the Available Items list and click **Add Selected** (singular right arrow), or **Add All** (double right arrow) if you would like to add everybody on the list.

6) Click **Done** when finished.

When the business process form is sent, each member will receive an email message and a copy of the BP form in their **Notifications** log.

> **Note:** The BP form may be set up to have pre-assigned **Cc** users. In this case, if the **Cc** button is enabled, you can add additional **Cc** users. If not, the BP is not set up to allow additional **Cc** users. You cannot remove pre-assigned **Cc** users.

View User Profile

The **View User Profile** window lets you see the profile for multiple users who are assigned to, or cc'd in, workflow tasks. This window opens when you select a highlighted user name within a form.

The left section of the **View User Profile** window lists the users, and the right section displays the following for the user:

▸ Basic Information
▸ Additional Information

You can view the user attributes from both the company and the shell directories.

If the **Apply values for the picker log from Project directory** option is selected, the system fetches the user attribute data from the project directory. The data that is displayed under the project directory (**User** mode) can be fetched from the shell level when the project directory option is selected. When the user's name is launched from the shell, the project/shell-level information is fetched as defined at the shell level.

Modifying Step Due Date

If the step duration and workflow override are enabled on the business process, you can also set the task due date for the next step.

To change the task due date:

1) In the Due Date Details section, click the **Calendar** icon. The Task Due Dates window opens.

2) Choose one of the following options:

   ‣ **Set all task due dates as:** Lets you set the same due date for all assignees.

   ‣ **Set individual task due dates:** Lets you assign different due dates for each assignee one at a time.

3) Click the **Calendar** icon to set the due date. For the second option, click the date listed in the **Task Due Date** column.

4) Select the month and year, and then click the date you want to select.

> **Note:** The workflow engine uses the company workday calendar. Grayed-out dates are those that have been set as non-working days (for example, weekends and holidays) by your company administrator. You cannot select non-working days for a task due date.

Adding Additional Assignee or Sending Additional Copy

The current step assignee can add assignees to the next step in the workflow. This is useful if you want to send a copy of the record or add another assignee before you act on it.

You can add additional assignees or copy users if:

‣ You have not yet accepted the task, and the form is still in view form. If you have already accepted the task, you can reverse the action by clicking the menu icon (three horizontal lines) and selecting **Undo Accept**.

‣ The business process workflow has been set up to allow adding assignees or allowing to Cc.

Adding Additional Assignee

You can add additional assignees or copy users from the tasks log (Tasks functional node of Home Workspace, Company Workspace, and Project/Shell).

> **Note:** Adding additional assignees must be done after opening a record.

To add an additional assignee to a task:

1) Go to your business process and open the log.

2) Select the record, click the *gear menu* (⚙), and click **Open**.

3) Click the **Menu Options** (☰) and choose **Add more assignees**. The User/Group picker window opens (to learn how to search and use the picker refer to *Unifier Essentials User Guide*). The list displays the list of users or groups that can be assigned, according to the business process setup.

4) Follow the assign team members' procedure to select users or groups.

5) Click **Done**.

The user or group will be added to the list of assignees. The record will appear in each new user's Tasks log and applicable business process log, and users will receive an email informing them of the task, depending on their email subscription preferences.

Sending Additional Copy of Business Process Form

To send a copy of a business process to additional users:

1) Go to your business process and open the log.

2) Select the record, click the *gear menu* (⚙), and click **Open**.

3) Click the **Menu Options** (☰) and choose **CC more users**. The User/Group picker window opens. The list displays the list of users or groups that can be copied according to the business process setup.

4) Follow the assign team members procedure to select users or groups.

5) Click **Done**.

The user or group will be copied. This means that the record will appear in each new user's **Notifications** log and applicable business process log, and the users will receive an email informing them of the copy, depending on their email subscription preferences.

You can copy more users on the **End** step, if the following conditions are met:

▶ The signed in user is not a **Step Editor**, and
▶ The signed in user is not a **Record Editor**.

The restrictions for **Record Editor** and-or **Step Editor** are not applicable to creators. A creator can add more users because the creator is the owner of the record. This ability remains whether the creator belongs to the **Record Editor** group or the **Step Editor** group.

Completing Tasks via Email

You may receive BP-related email notifications that contain hyperlinks that represent actions in a BP workflow.

Actions you can take via email are shown as hyperlinks and represent actions you can take in a workflow step. When you click the hyperlink, an email reply is generated. Your reply text becomes a comment in the BP record, except in the case of Document Type business processes; reply text is not attached for those business processes. Assignees need to be pre-assigned on the workflow steps for the email workflow action to occur. Attachments can be included in the workflow action replies if the BP is set up to include them. Email clients supported for workflow actions via email include HTML and text. If you are using a text client for your email, the possible actions are listed, but are static text (not hyperlinks). In that case, you can reply to the email manually and provide the appropriate To, Subject, and body text. Your subject should be the name of the action you want to take as shown in the email notification.

Your subject should be the name of the action you want to take as shown in the email notification.

Tasks that are assigned to you are listed in your **Tasks** logs. The **Tasks** logs display business process-related tasks in which you are being requested to participate. Refer to the *Unifier Essentials User Guide* for details about the **Tasks** log.

The following tasks may appear in your Tasks logs:

▸ You are part of a business process workflow and are requested or required to take some sort of action.
▸ You are designated as the Initiation step assignee for an auto-created business process.

Validation for email task flow actions are as follows:

▸ Email address must match that of the assignee
▸ Valid Notification ID/Password (NID)
▸ Active (Unifier Essentials) User
▸ BP record has not moved or been terminated
▸ Record has not already met completion policy
▸ Assignees must be Preassigned at the destination step

To respond to a workflow task directly from email:

1) Open the email notification.

   If **Response via email** has been enabled in the business process design, the email includes action links. The email message also displays data from the business process form.

2) Review the email, and then click an action link. In an email program such as Outlook, this will create a response email.

   > **Note:** (1) Do not change the subject line of the email. Changing the subject line text will cause the email response to fail. (2) If you are using a text client for your email, you can open a new email message, copy the subject line of the notification, and paste it into the subject line of the response email.

3) If applicable, add text to the body of the email. This will create a **Comment** on the business process record.

   > **Note:** Email response text is not saved as Comments for Document Type business processes.

4) If applicable, add file attachments to your email response.

   If the business process has been set up to accept attachments, they will be added to the record in the system. If the business process does not allow attachments, attachments you add to the email response will be ignored. If a file exists on the record with the same name as the file you are trying to send, your attachment will be ignored.

5) Send the email, which will send the action to Unifier Essentials.

For all Workflow Business Processes where the steps are enabled for "Enable Response via email," the following Workflow processes are completed when you perform, or approve, a task via email:

Capture of Workflow progress elements in the form:

▶ Taken By
▶ Action Name
▶ Taken On

Formula calculations on the form:

When the record progresses to the next step, the system evaluates the formulas on the form that are associated to the Workflow.

Form level validations:

Form-level validations are applied. If there are any errors, it will not advance the Workflow to the next step.

Additional form processing:

▶ Auto population (sum of line items)
▶ Dynamic Data Set (DDS) check: The system performs DDS checks prior to routing the record to the next step when action is taken through Email.

> **Note:** If the step where the action is being performed has a DDS behavior set field which is required, and that field is empty, the record will not progress to the next step.

Reset Form: Data Elements (DEs) in the form that have the Data Entry as Reset are processed when the record is progressed to the next step via email action.

Auto-Population for Behavior Set DEs

The data fields in a business process form can be updated through auto-population, including those in a behavior set of a DDS. Auto-population can occur during the creation of a form or during the selection of a picker value within a form. If the value of a Master Data Element clears a previously entered value of a behavior set data element and disables it, any fields auto-populated from the behavior set data element are re-evaluated.

Similarly, any formulas dependent on the behavior set data element are re-evaluated. For example, in an **Upper** or **Detail** form, when a behavior set DE changes, the auto-population fields do not change. In the case of selecting a picker value, when the value of a picker changes, the auto-population fields do change.

Additional Processing

Query and Summary DEs:

Query and summary-based DEs, in the subsequent forms of the Workflow, are populated correctly when the record is progressed to the next step via email action.

Other post processing logic:

- Reverse auto population
- Roll-up to Cost sheet
- Roll-ups to other sheets
- Auto Creation - I-Step and so on

About Email Notifications for Business Processes

Email notifications are designed and set up by the Unifier Essentials Administrator. To initiate this feature for yourself, you must set up an option in your user preferences that specifies that you want to receive these notifications.

Refer to *Unifier Essentials User Guide* for information about selecting email subscription options.

After you make this specification, you will be notified whenever a business process to which you have been assigned is created, modified, or closed.

In addition, if you are creating or editing a business process that has been set up for email notifications, you can notify additional users or groups at your discretion.

Users who receive email notification (based on events triggered) will see the data elements based on configured email notification elements which is across all view forms for Workflow BPs. For Non-workflow BPs, the email notification received will show all the data elements based on configured email notification elements set up across all upper forms.

Email Notifications for Workflow Business Processes

You may be notified by email when you have a new task, if you are late responding to an assigned task, you are an editor on the task (in which case, you receive notification each time a draft is created), or if you were the creator of the business process and someone has acted on their task.

Depending on your company Unifier Essentials email notification setup, and your own user preferences, you may receive such emails one at a time as the task is generated, or you may receive one daily email digest summarizing all the day's email notifications (including non-business process related notifications).

> **Note:** Email notifications can be configured in your user preferences.

If you receive an email notification

You may receive BP-related email notifications for the following:

▶ You have a new task. A task can be generated if you must act on a BP workflow step. Click the hyperlink at the bottom of the email. When you click the link, you will be directed to the Unifier Essentials sign in screen. After you sign in, the system will display the record, where you can complete the form and send it to the next step.

▶ You are late responding to an assigned task. The actions you can take are similar to when you have a new task.

▶ You are the owner or creator of the BP and someone has acted on their task. This is a notification only and no action is required.

▶ You are an Editor on a task (you receive notification each time a draft is created).

▶ You are designated as an active proxy user, and the user you are acting for has received a task.

▶ A BP workflow has been completed. This is a notification only and no action is required.

▶ You must take action during a BP workflow.

Email Notifications for Non-Workflow Business Processes

Your company may require that **non-workflow** business processes be acknowledged when they are created, modified, or closed (terminated).

Email notifications for non-workflow business processes include the fields from the business process that were chosen to appear on the email. The notification also includes a link you can click that will open the record for you to view.

When you click the hyperlink, you will be directed to the Unifier Essentials sign in screen. After you sign in, the system will display the record, where you can complete the form and send it to the next step.

The email will display summary information, such as:

▶ What record was created

▶ Which upper form fields have been modified

▶ Comments that have been added to the BP or a line item

▶ Line items that have been added, edited, or deleted

▶ Comments that have been added to the record (excluding any hidden comments)

▶ Attachments that have been added or removed

Managing Business Process Records

The following topics describe how to manage business process records.

Transferring Ownership - Business Process Records

If you are a BP record owner or creator, you can transfer ownership at any time in the workflow process, other than the initiation step, creation step, or after its termination step. The new owner will have all privileges of a BP owner, and the originator name on the BP form and the log will show the new owner.

To transfer ownership within a BP form:

1) Open the BP form.
2) Click **Menu Options** (≡).
3) Select **Transfer Ownership**. The **Transfer Ownership** window opens to display the **User Picker**.
4) Click **Select** (⊟≣) to the right of the text field, or type a User Name into the text box. If you start typing, a list of suggested users will appear below.
5) If you clicked **Select**, click a user from the **User Picker** window and click **Select**.
6) Click **Transfer** when done.

To transfer ownership from a BP log:

1) Open the BP log.
2) Hover over a record and click the *gear menu* (⚙).
3) Select **Transfer Ownership**. The **Transfer Ownership** window opens to display the **User Picker**.
4) Click **Select** (⊟≣) to the right of the text field, or type a User Name into the text box. If you start typing, a list of suggested users will appear below.
5) If you clicked **Select**, click a user from the **User Picker** window and click **Select**.
6) Click **Transfer** when done.

Alternatively, you can select **Transfer Ownership** in the **Actions** menu to complete the same process.

Granting or Updating Record Permissions for Non-Workflow Business Processes

To grant or update permissions:

1) Create a BP record at the Company or Project/Shell level.
2) Select one or more BP records.
3) From the toolbar, click **Actions**, and then select **Permissions**. You can also click the *gear menu* (⚙) and select **Permissions** to assign permissions to only one BP Record. The Permissions window opens.
4) In the Permissions table, type the user or group name in the **Add** box and select the user or group to grant access.
5) By default, each listed user or group will be granted **View** permission, allowing them to open the BP Record. To grant additional permissions, select the checkboxes that correspond to the user or group:
    ▸ **All**: User will have **View**, **Edit**, and **Modify Permission**.

▸ **Modify Permissions:** Allows user to control the BP record's permission settings.

▸ **Edit Data:** User can import BP record information, save a snapshot, edit BP record properties, and add columns.

▸ **View**: User can view the BP record.

6) Click **Save**, or click **Save & Next** to go to the next worksheet.

When you change settings in the Permissions window, the **Save** button is enabled. After you click Save, a spinning wheel appears while your changes are saved and then the Save button is dimmed.

When editing one record at a time, click the **left arrow** to view the previous BP record or the **right arrow** to view the next BP record.

After exiting the Permissions window, the Permissions tab will be refreshed with the updated information.

> **Note:** You must have permissions for specific business process logs to create or view records. Contact your project/shell administrator if you are having trouble accessing BPs or BP logs to which you need access.

Editing Business Process Records

When a workflow business process (BP) is in route, depending upon your permission settings, you can add or edit information on the form. A non-workflow BP can be edited as needed, as well.

You can be designated as either a step editor on a specific step in a workflow, or as a record editor. As an editor, you must have at least the "View" permission to be able to view the record in the log and access it for editing.

▸ Step editors cannot edit a workflow record until the task assignee accepts the task and saves the draft.

▸ Edits made and saved by assignees are not viewable until the assignee sends the record on to the next step; however, edits made and saved by record editors are viewable at any time.

▸ Edits performed on the end step of a workflow BP affect the record directly, as no draft exists.

For details about editing your tasks records, see *Taking Action on your Task*.

Behavior of the Due Date (due_date) Field

In the **Workflow Settings** field in the **Workflow Setup** of a BP, if the **Override Workflow Due Date** field is set as **Yes**, you *can* edit the due date in the creation step. If the **Override Workflow Due Date** field is set as **No**, you *cannot* edit the due date in the creation step. Also, you cannot edit the Due Date if the work has started or the work has moved to the next step (is in-flight) in the workflow process.

When you create workflow BP records through file imports (CSV or Microsoft Excel), the system currently sets the Due Date automatically based on the **Workflow Settings**; the Due Date provided in the input file is ignored. Also, when you update workflow BP records through file imports (CSV or Microsoft Excel), the system uses the Due Date that was based on the **Workflow Settings** and ignores the Due Date provided in the input file.

Editing a BP Record for Editors

You can be designated as either an Editor on a specific step in a workflow, or as a Record Editor. As an Editor, you must have at least view permission to be able to view the record in the log and access it for editing.

> **Notes:**
>
> - Step editors cannot edit a workflow record until the task assignee accepts the task and saves the draft.
> - Edits made and saved by assignees are not viewable until the assignee sends the record on to the next step. However, edits made and saved by record editors are viewable at any time.
> - Edits performed by editors are not audited; however, changes made by record editors are audited.
> - Edits performed on the end step of a workflow business process affect the record directly, as no draft exists.

Concurrent editors in a business process

While a workflow BP is on a step, or a non-workflow BP is in Edit mode, the system saves edits to fields, but does not commit the changes. For example, if editor one revises fields 1 to 5 and then saves the record, and editor two revises fields 6 to 10 and saves, the record retains all 10 edits. However, if editor two revises field 4, and saves the record after editor one saved the record, the data from editor two overwrites editor one's revision.

> **Note:** Non-workflow Cost BPs cannot be updated concurrently. If a Non-workflow Cost BP record is updated through the following means, and the record is being updated by a concurrent editor, there will be a slight delay in the process because the update call will need to wait until any previous transactions are completed.
>
> - Upper form - updated via form view, bulk update, REST, Email action, as a result of Autocreation
> - Lineitems - created via form and grid views, CSV, REST, lineitemcreator DE, consolidation, copy
> - Lineitems - updated via UI, REST, as a result of Autocreation
> - Lineitems - deleted via UI, REST

To edit a non-workflow BP that is complete, click to open the BP and click **Edit**.

> **Notes:**
> - If the BP is in a terminal status and you click **Submit**, the system disables the **Edit** button and the form can never be edited again.
> - If you update a record for which the current Status has been set to Inactive, you must select a different Status to continue with the update.

You can edit a workflow BP during the workflow process.

> **Note:** If a view form is used on a terminal step, further editing is not possible.

You can add comments if you are not a task assignee, provided that you have the following permissions for business process records:

- **View**
- **Add General Comments**

In this scenario:

- You only can add comments when the business process record is in View mode.
- You will not be able to hide comments. The Hide Comment option is available for task assignees who are working on an accepted task (an Action form associated with the workflow step).

Editing a BP Record from Master Log - Business Processes Node

You can edit a Project/Shell BP record from the master log (**Master Log - Business Processes** grouping node), if you:

- Are an active member of the project, shell, or sub-shell
- Have the appropriate permissions in the associated project/shell.

> **Note**: The name of the **Master Log - Business Processes** grouping node can be customized.

When you open a BP record from the master log, the record will open in either **Edit** or **View** mode, depending on the user permissions associated with that record in the Project/Shell.

For editing workflow BP records:

- After you open a BP record from the master log, the Project/Shell permissions are in effect.

▸ You can accept a task and act on the workflow BP record by opening the BP record from the master log, if you are the assignee on the current workflow-step in the BP. If not, the BP record is opened in **View** mode only.

▸ You can add comments if you are a cc user on a particular step.

▸ You can add comments provided that the current step has comments option enabled.

▸ If you are not an assignee on a particular step, you must have **Bulk Edit** permission on the BP record, in the master log, to edit data elements on the record.

For editing non-workflow Bp records:

▸ If you have **Edit Data** permissions for a non-workflow BP record, you can open the record from the master log and proceed to edit the BP record.

▸ If you are an **Editor** of a non-workflow BP record, you can open the record from the master log and proceed to edit the BP record.

To edit a BP record from the master log:

1) Go to **Home** workspace.

2) Click **Master Log - Business Processes** grouping node.

3) Select the BP record that you want to edit.

4) Click the *gear menu* (⚙) and select **Open** to open the BP record.

5) When finished editing, click **Save**.

Editing Multiple BP Records (Bulk Edit)

If you have many projects/shells with several business processes in the same state, you can edit/modify (update) multiple BP records (bulk edit) at once.

To edit/modify multiple BP (bulk edit) records through integration:

▸ An interface must have been defined.

▸ You must have permission to perform bulk edit (Allow Bulk Edit).

> **Notes:**
>
> ▪ You can update a maximum of 200 records using bulk workflow update.
>
> ▪ It is recommended to add those fields to integration which can be updated. Exclude fields such as formulas, and system fields such as **Record No**, **Creator**, and **Record Status** in workflow BPs.

You can edit/modify multiple BP records, both the workflow and non-workflow, at the following levels:

▸ Project

▸ Shell

▸ Company

You can edit/modify multiple BP records (bulk edit), both the workflow and non-workflow, from the following grouping nodes:

▶ **Company Logs**
▶ Project/Shell **Logs**

> **Note:** You cannot update the Bidders email addresses in bulk (bulk update through Bulk edit) or within multiple records. You can only change a Bidder's email address in a single record.

You can also update upper form data and line item records of multiple Simple and Line Item type BP records from the **Business Process Log** node.

Bulk Editing BP Records From the Company Log Node

To edit/modify multiple BP records (bulk edit), both the workflow and non-workflow, from the **Company Logs** node:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, expand the **Company Logs** grouping node.
3) Click the desired BP to open the BP log.
4) From the log, Ctrl+click to select the BP records that you want to edit.
5) Click **Actions** and click **Bulk Edit** to open the **Bulk Edit** window.
   a. In the left pane, edit the Upper Form of your business process.

   The system automatically selects the Update checkbox when you type into or modify a field. You can deselect it if you do not want to modify the field at this time.
   b. In the right pane, (Action Status), preview the status of each record.
6) When finished, click **Close**.

Bulk Editing BP Records From the Logs Node

To edit/modify multiple BP records (bulk edit), both the workflow and non-workflow, from the Project/Shell **Logs** node:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, expand the **Logs** grouping node.
3) Click the desired BP to open the log.
4) From the log, Ctrl+click to select the BP records that you want to edit.
5) Click the BP to open the BP log.
6) From the log, Ctrl+click to select the BP records that you want to edit.
7) Click **Actions** and click **Bulk Edit** to open the **Bulk Edit** window.
   a. In the left pane, edit the Upper Form of your business process.

   The system automatically selects the **Update** checkbox when you type into or modify a field. You can deselect the **Update** checkbox if you do not want to modify the field at this time.
   b. In the right pane, (Action Status), preview the status of each record.

> **Note**: Bulk Edit ignores data elements with a formula. As a workaround, add the desired data element that does not have a formula to the integration form with the direction set as *Both* or *Input*. During bulk edit, add the desired value to that DE. For more details on updating the integration form, see the topic, *Creating an Upper Interface*, in the Online Help.

8) When finished, click **Close**.

Additional information about editing/modifying multiple BP records (bulk edit)

The **Bulk Edit** option (for multiple BP records) lets you edit the fields from the Action Form (Upper Form) of the current step in the workflow.

In a non-workflow BP, you can use Bulk Edit to update the Record Status if the record has not reached terminal status or the record is not terminated. The Bulk Edit window only shows active statuses.

You *cannot* use the **Bulk Edit** option for multiple BP records to edit:

▸ Initiation Step (I-Step) records
▸ Fields in a dynamic data set
▸ Fields from line items
▸ BP Line Item Data Picker
▸ BP Data Picker if it has an associated Line Item Data Picker configured
▸ System-defined fields, such as record number, status, or due date

> **Note:** If the Record Status defined for any of the targeted business processes been inactivated, an error is displayed, and those business processes will not be updated.

The **Bulk Edit** option for multiple BP records is *not available* for the Single-record BP.

Fields that are configured for auto-sequencing are not available for bulk edit because the values for these fields are system-generated.

You *cannot* use the **Bulk Edit** option for single, or multiple, BP records to update a field that has value uniqueness configured.

You can update a maximum of 200 records using Workflow update (**Workflow Actions** in the **Action Without Preview** window).

Only the Upper Form is modified during Workflow update (**Workflow Actions** in the **Action Without Preview** window).

The Workflow update (**Workflow Actions** in the **Action Without Preview** window) is not supported on tasks that are on the Initiation step.

When you send the record to the next step, the system performs validation for the required fields.

At the company level and project level, when you are acting on multiple tasks, you must have **Allow Bulk Edit** permission for each task.

For bulk update, the fields are from both Upper Form and Details forms (drawn from integration templates). Some business processes do not support integration. As a result, you cannot take multiple actions on these business processes because integration is used in multiple action.

The system does not allow Bulk edit of Data Picker based on a query.

Editing Multiple BP Records (Bulk Edit) from Master Log - Business Process Node

If you have the **Allow Bulk Edit** permission, you can select one or more business process records from a master log (**Master Log - Business Processes** grouping node) and perform bulk edits on those selected records.

> **Note**: The name of the **Master Log - Business Processes** grouping node can be customized.

You can select records across projects/shells to perform bulk edit.

The following Data Definitions cannot be modified using Bulk Edit in a Master Log:

▸ Image Picker
▸ Group Name Picker
▸ User Picker
▸ Project Picker
▸ BP Creator

To edit multiple BP records (bulk edit) from the master log (availability based on permission):

1) Go to **Home** workspace.
2) Click **Master Log - Business Processes** grouping node.
3) Select the BP record that you want to edit.
4) From the log, Ctrl+click to select the BP records that you want to edit.
5) Click **Actions** and click **Bulk Edit** to open the **Bulk Edit** window.

   The window is divided into two panes. Use the left pane to edit the Upper Form of your business process.

   The system automatically selects the Update checkbox when you type into or modify a field. You can deselect it if you do not want to modify the field at this time.

   Use the right pane (Action Status) to preview the status of each record.
6) When finished, click **Close**.
7) Proceed with your edits, save, and close the window.

> **Note**: In the **Home** tab, when records from different projects are opened from the **Drafts** log, **Tasks** log, or **Master Log - Business Processes** node, the message, *Leave site?*, is suppressed.

Additional information about editing/modifying multiple BP records (bulk edit)

The **Bulk Edit** option (for multiple BP records) lets you edit the fields from the Action Form (Upper Form) of the current step in the workflow.

You *cannot* use the **Bulk Edit** option for multiple BP records to edit:

▸ Fields in a dynamic data set
▸ Fields from line items
▸ System-defined fields, such as record number, status, or due date

> **Note:** If the Record Status defined for any of the targeted business processes been inactivated, an error is displayed, and those business processes will not be updated.

The **Bulk Edit** option for multiple BP records is *not available* for the Single-record BP.

Fields that are configured for auto-sequencing are not available for bulk edit because the values for these fields are system-generated.

You cannot use the **Bulk Edit** option for single, or multiple, BP records to update a field that has value uniqueness configured.

You can update a maximum of 200 records using Workflow update (**Workflow Actions** in the **Action Without Preview** window).

Only the Upper Form is modified during Workflow update (**Workflow Actions** in the **Action Without Preview** window).

The Workflow update (**Workflow Actions** in the **Action Without Preview** window) is not supported on tasks that are on the Initiation step.

When you send the record to the next step, the system performs validation for the required fields.

At the company level and project level, when you are acting on multiple tasks, you must have **Allow Bulk Edit** permission for each task.

For bulk update, the fields are from both Upper Form and Details forms (drawn from integration templates). Some business processes do not support integration. As a result, you cannot take multiple actions on these business processes because integration is used in multiple action.

Exporting BP Records Using Bulk Update From Business Process Log Node

If you have the **Allow Bulk Edit** permission, you can select one or more business process records from the **Business Process Log** grouping node and perform a bulk update on those selected records.

A bulk update allows you to export multiple business process records and modify each record distinctly in a Microsoft Excel file (.xlsx). For a detailed list of supported BPs, see *Business Processes Supported by the Bulk Update Export/Import Process* (on page 187).

When you use Bulk Create or Bulk Update, you start by exporting the BP design structure to a Microsoft Excel or CSV file and then populating the required fields. If you leave a Data Picker Data Element (DE) field blank that is configured to Auto Populate, the system completes the field when you run a Bulk Create; however, it does not complete the field when you run a Bulk Update. To reduce confusion and maintain consistency for both Bulk Create and Bulk Update, the system uses the Excel or CSV file to populate the Data Picker field if the field is excluded from the Integration Form for the BP design.

> **Note:** Bulk Update is not currently supported for General Spends Classification of Cost BPs with Line item of CBS Code (both workflow and non-workflow) if breakdown rows exist in the referenced Schedule of Values (SOV).

Exclusions

For a business process selected in the **Logs** node, the following records are excluded in the right pane when you click **Bulk Update**, select **Export Data**, select **Selected Records**, and select **Main Form** in the toolbar in the right pane:

▸ Initiation step records

▸ Terminated records

▸ Initial draft records of non-workflow BPs as they are available from the **Business Process Log** node.

  However, terminal step records are additionally excluded only when you click **Bulk Update**, select **Export Data**, select **Selected Records**, and select **Main Form and All Line Items**

▸ Records with attachments

Bulk Update Export Process

To export data using bulk update:

1) Switch to **User** mode.

2) In the left Navigator, select **Logs**, and then select a business process (BP).

3) In the right pane, Ctrl+click to select multiple BPs you want to export and edit.

4) Depending on the type of business processes selected, select any of the following options from the toolbar:

   ▸ To export only **Upper** form data from the selected records, click **Bulk Update**, select **Export Data**, select **Selected Records**, and select **Main Form**

   ▸ To export **Upper** form and line item data from the selected records, click **Bulk Update**, select **Export Data**, select **Selected Records**, and select **Main Form and All Line Items**

   > **Note:** Terminal records (workflow or non-workflow) can be exported from the **Main Form**, regardless of whether the terminal status record has an **Action** Form or **View** Form. To export such terminal records, click **Bulk**

> **Update**, select **Export Data**, select **Selected Records**, and select **Main Form**.

5) Save the generated Excel file (.xlsx) file in a desired folder location. For more information, see *Microsoft Excel File Format for Bulk Update Export/Import Process* (on page 86).

   By default, files of business processes (BPs) with only Main form data are named in the format *<BP Name>_MainForm.xlsx* (for example, *Warranty_MainForm.xlsx*).

   By default, files for business processes (BPs) with Main form data and line item data are named in the format *<BP Name>_MainForm_LineItems.xlsx* (for example, *Warranty_MainForm_LineItems.xlsx*).

Microsoft Excel File Format for Bulk Update Export/Import Process

The following applies to all business processes where BP records are exported using the **Bulk Update** option to a Microsoft Excel file (.xlsx). For more information on how to use bulk update, see *Exporting BP Records Using Bulk Update From Business Process Log Node* (on page 183).

> **Note:** Bulk Update is not currently supported for General Spends Classification of Cost BPs with Line item of CBS Code (both workflow and non-workflow) if breakdown rows exist in the referenced Schedule of Values (SOV).

When you select BPs using the **Bulk Update** menu options, the exported Excel file is saved using the following file formats:

▶ For business processes containing only Main Form data, the file is saved in the default format: *<BP Name>_MainForm.xlsx*. For example, *Warranty_MainForm.xlsx*.

▶ For business processes containing Main Form data and line item data, the file is saved in the default format: *<BP Name>_MainForm_LineItems.xlsx*. For example, *Warranty_MainForm_LineItems.xlsx*.

The exported/imported Excel file contains the following worksheets/tabs:

Instructions Worksheet

The **Instructions** worksheet is generated automatically. Depending on the type of business processes included in the Excel file, this worksheet describes how to use the Excel file to enter or update BP records and line item data.

Main Form Worksheet

The **Main Form** worksheet is generated automatically as the second worksheet in the Excel file. It is recommended to not rename or reorder this worksheet. The content of this worksheet is dependent on the types of BPs included in the export/import. It contains the Unifier Essentials data needed for updating existing BP records, and line items.

▶ Each BP record is identified by read-only fields in the following order: **Record ID** and **Record Number.**

▶ The following fields/data elements are also read-only: **Record Status**, **Creator, Creation Date, Currency ID**, **Due Date**, **Status in WF**, **BP**, **Formula Data Elements** and data elements that are set to auto-populate from the sum of all line items data elements from the Integration Validation Form.

▶ The line item tab order is identical to the order in the selected records.

▶ Custom date formats are honored.

▶ The data elements with direction set as **Input** or **Both** are shown as fields in the exported Excel file.

▶ The name of the worksheet is translated according to the user's language preference.

Additional Worksheets for each Line Item Tab

Each Line Item tab worksheet displays a list of line item records in the following format:

▶ The line item records and the data elements of each tab are listed in the same order as displayed in the user interface.

▶ Each line item record is identified by read-only fields in the following order: **Record ID**, **Line Item ID**, **Record number**, and **Line No**. These fields cannot be renamed, reordered, duplicated, or removed from the file.

▶ The formula data elements and auto-populated data elements are read-only fields.

▶ Worksheet names do not support the following special characters: \ / ? * : [or]

Codes and Descriptions Worksheet

The fields displayed in the **Codes and Descriptions** worksheet depends on the cost sheet. At a minimum, these include:

▶ **Cost Code**: Displays cost codes available in the project cost sheet. It includes active cost codes and inactive cost codes with the entire hierarchy.

▶ **Cost Item**: Displays the name of the item associated with the cost code.

▶ **Status**: The status of the cost code at the time of the export. Valid values include: **Active**, and **Inactive**.

SOV Line Items Worksheet

An **SOV Line Items** worksheet, if generated, displays the following fields:

▶ **refiid** (label of field): A list of contracts associated with the records in the **Line Item** worksheet.

▶ **Ref** (label of **uuu_sovlinum** field): A list of all reference codes from the SOV sheet of the selected contract.

▶ **CBS Code**: A range of CBS codes associated with the contract.

▶ **Commit Short Description**: A short description of each commit.

Updating BP Records in Excel for Bulk Update From Business Process Log Node

If you have the **Allow Bulk Edit** privilege, you can upload a batch of modified business process records using a Microsoft Excel file (.xlsx) from the **Business Process Log** grouping node.

A bulk update allows you to update and import multiple business process records that have been distinctly modified in a Microsoft Excel file (.xlsx). For a list of business processes supported by the Bulk Update menu options, see **Business Processes Supported by the Bulk Update Export/Import Process** (on page 187).

> **Notes:**
>
> - Bulk Import data relies on V1 REST services. Therefore the system displays an error in the **Import Error details** window.
> - Bulk workflow actions follow REST V2 services.
> - Email is not generated through Bulk Update when bulk workflow actions are taken for multiple records.
> - Line items that are part of the input file are ignored if the record does not have those line items.
> - Bulk Update is not currently supported for General Spends Classification of Cost BPs with Line item of CBS Code (both workflow and non-workflow) if breakdown rows exist in the referenced Schedule of Values (SOV).

Recommendation

To import BPs successfully, do not change the data formatting type in the *exported* file. For a detailed list of data elements that can and cannot be updated via Excel import, see **Supported Data Elements For Bulk Update in Excel Import** (on page 202).

Procedure

To update business process records through Bulk Update:

1) Modify the business process records in the Excel file.

   For more information, see **Modifying the Excel File for Bulk Update** (on page 199).

2) Import the data in the Excel file.

   For more information, see **Importing the Excel File for Bulk Update** (on page 201).

3) View the import history information of the bulk update process.

   For more information, see **Viewing Bulk Update Import Data History Details** (on page 203).

4) View error details of business process records, if any, associated with the bulk update process.

   For more information, see **Viewing Error Details of the Bulk Update Import Process** (on page 204).

5) Resolve the errors and re-import the business process records.

   For more information, see **Reusing the Error File For Bulk Update Import Process** (on page 206)

Business Processes Supported by the Bulk Update Export/Import Process

If you have the **Allow Bulk Edit** permission, the toolbar of the business process you select in the **Logs** node displays the **Bulk Update** menu with the following three menu items:

- **Export Data**
- **Import Data**
- **Import History Details**

The Excel file generated by the Bulk Update export/import menu items displays the following worksheets for supported business processes listed below. For more information about each worksheet, see *Microsoft Excel File Format For Bulk Update Export/Import Process*.

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Company-level Simple BPs (workflow and non-workflow)		Yes	Yes. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: - **Workflow Name** - **Current Step Name** - **Workflow Action**	No	No	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Shell-level Simple BPs (workflow and non-workflow)		Yes	Yes. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▸ **Workflow Name** ▸ **Current Step Name** ▸ **Workflow Action**	No	No	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Company-level *Line Item BPs, **Generic Classification** (workflow and non-workflow) *Excludes Vendor BPs		Yes	Yes For Line Item BPs with cost code data in the **Upper** form, the worksheet also displays a **Cost Code** field. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▶ **Workflow Name** ▶ **Current Step Name** ▶ **Workflow Action**	Yes	No	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Shell level Line Item BPs (workflow and non-workflow)		Yes	Yes For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▶ **Workflow Name** ▶ **Current Step Name** ▶ **Workflow Action**	Yes	No	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line items with CBS Code, **Generic Classification,** (workflow and non-workflow)		Yes	Yes For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▸ **Workflow Name** ▸ **Current Step Name** ▸ **Workflow Action**	Yes If the work package picker is included in the BP, the worksheet includes a **Work Package** field with a drop-down list of values. You can edit the line item. If the BPO or BPO Line Item picker is included in the BP, the worksheet includes the **BPO** and **BPO Line Item** picker as read-only fields.	Yes	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **Budget Transfer Classification** (workflow and non-workflow)		Yes	Yes For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▸ **Workflow Name** ▸ **Current Step Name** ▸ **Workflow Action**	Yes	Yes	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **Base Commit Classification** (workflow and non-workflow)	General Spends SOV (with Individual Commit Line Items)	Yes	Yes For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▶ **Workflow Name** ▶ **Current Step Name** ▶ **Workflow Action** If you choose to export the Main form and line items, the worksheet also displays the following read-only fields by default: ▶ **currency picker** ▶ **rate in project currency** ▶ **rate in base currency** ▶ **overrid**	Yes	Yes Displays both active and inactive cost codes	No

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Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **Base Commit Classification** (workflow and non-workflow)	Payment Applications SOV (with Individual Commit Line Items)	Yes	Yes For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▶ **Workflow Name** ▶ **Current Step Name** ▶ **Workflow Action** If you choose to export the Main form and line items, the worksheet also displays the following read-only fields by default: ▶ **currency picker** ▶ **rate in project currency** ▶ **rate in base currency** ▶ **overrid**	Yes	Yes Displays both active and inactive cost codes.	No

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **Change Commit Classification** (workflow and non-workflow)	General Spends SOV	Yes	Yes For change commit records, the worksheet also displays a read-only **Reference Commit** field with values. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▸ **Workflow Name** ▸ **Current Step Name** ▸ **Workflow Action**	Yes For in-flight records associated with the *same* contract, the worksheet also displays a **Reference** field with a list of all reference codes from the SOV sheet of the selected contract for that record. For multiple in-flight records that reference *different* contracts, the worksheet displays a **Reference** field with a list of all reference codes from the SOV sheet of the associated contract.	Yes	Yes The worksheet displays a list of all SOV values across all contracts.

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **Change Commit Classification** (workflow and non-workflow)	Payment Applications SOV	Yes	Yes For change commit records, the worksheet also displays a read-only **Reference Commit** field with values. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields also display: ▸ **Workflow Name** ▸ **Current Step Name** ▸ **Workflow Action**	Yes For in-flight records associated with the *same* contract, the worksheet also displays a **Reference** field with a list of all reference codes from the SOV sheet of the selected contract for that record. For multiple in-flight records that reference *different* contracts, the worksheet displays a **Reference** field with a list of all reference codes from the SOV sheet of the associated contract.	Yes	Yes The worksheet displays a list of all SOV values across all contracts.

Supported Business Processes	SOV Type	Instructions Worksheet	Main Form Worksheet	Line Items Worksheet	Codes and Descriptions Worksheet	SOV Line Items Worksheet
Cost BPs, Line item with CBS Code, **General Spends Classification** (workflow and non-workflow)**		Yes	Yes Also displays a read-only **Reference Commit** field. It will also include record data from terminal status records if the end form is an **Action** form. For workflow BPs, the data elements are displayed from the **Integration** tab. The following fields additionally display: ▶ **Workflow Name** ▶ **Current Step Name** ▶ **Workflow Action**	Yes Displays CBS codes associated with the SOV referenced in all the exported line items.	Yes	Yes Displays all SOV line items across multiple contracts in the following fields: ▶ **refid** (Label of field) ▶ **Ref.** (label of **uuu_sovlinum** field) ▶ **CBS Code** ▶ **Commit Short Description**

** Bulk Update is not currently supported for General Spends Classification of Cost BPs with Line item of CBS Code (both workflow and non-workflow) if breakdown rows exist in the referenced Schedule of Values (SOV).

Business Processes Not Supported by Bulk Update Export/Import Process

The following business processes are not supported by the Bulk Update process:

▸ Text
▸ Line item with CMx Pickers
▸ Lease
▸ RFB
▸ Vendor(Company level lineitem)
▸ Cost BP (Lineitem with CBS and Fund code)
▸ Cost BP (Lineitem with CBS and WBS code)
▸ Cost BP (Lineitem with   Fund code)
▸ Cost BP (Lineitem with Account code)
▸ Cost BP (Lineitem with Multiple codes)
▸ Cost BP (Commit at company level)
▸ Preventive Maintenance BPs which are of Line item type
▸ Line item to filter company business processes

Modifying the Excel File for Bulk Update

To prepare your file for an import, modify the business process records in the following tabs of the Microsoft Excel file (.xlsx. or .xls):

▸ Main Form tab
▸ Relevant Line Item tabs

Ensure the Microsoft Excel file (.xlsx. or .xls) adheres to the *Microsoft Excel File Format For Bulk Update Export/Import Process*.

Main Form Worksheet

For Workflow BPs, modify the records in the **Main Form** tab as follows:

1) Select a record and modify the data.
2) In the **Workflow Action** field, select any of the following actions:
   ▸ **Blank**: This is the default action selected for the current step in the workflow
   ▸ **<Workflow Action Name>**: Select the next action to move the business process from the current step in the workflow. For example, select **Approve**, **Approve without Review**, or **Cancel**.

   > **Notes:**
   > - The list of actions available for you select vary with each workflow.
   > - Only assignees can perform a bulk update of your workflow actions

provided you have **Bulk Edit** privilege.

- If records of different workflows are selected for bulk update, the **Workflow Action** field displays the actions available across all workflows.

- The **Assignment Policy** specified for a workflow is ignored for performing bulk workflow actions.

3) Save the Excel file.

Line Item Tab Worksheets

To modify line item records in the relevant Line Item tab:

1) Select a line item record, and modify the data.
2) In the **Action** field, select any of the following actions:

- **Update**: Select this action if you modify field values for existing line items such as:
  - CBS Codes of inflight Base Commit or Change commit line items
  - CBS Codes (with SOV Reference picker) values of inflight General Spends line items. For workflow and non-workflow records, the cost sheet will reflect the updated amounts for the CBS code.
  - Commit line item picker(**reference picker**) values of inflight Change Commit line items
  - Ref commit picker values in Change commit line items
  - System data elements for referenced unit cost contract in change commit (**SOV Type** as *Payment Applications*) business process line items: **uuu_quantity** and **Amount** (if not formula)
  - Route Base Commit or Change Commit BP records to the next step in the workflow, or to the terminal step
  - Work Package picker values in line items of workflow and non-workflow Generic Cost BPs having Line items with CBS Code
  - CBS codes of inflight General Spends line item records

  Otherwise, by default, the line item will not be updated when set to a *Blank* value.

- **Add**: Select this action to:
  - Add line items that have CBS codes for inflight Base Commit records
  - Add the following types of picker values to new line items in workflow and non-workflow Generic Cost BPs having Line items with CBS Code:
    - Work Package picker values
    - BPO picker values
    - BPO Line Item picker values

- **Delete**: Select this action to:
  - Delete existing line items of inflight Base Commit records.
  - Delete the following types of picker values from new line items of workflow and non-workflow Generic Cost BPs having line items with CBS Code:
    - Work Package picker values

- BPO picker values
- BPO Line Item picker values

When you delete a line item, data elements that are set to receive values from line items in the **Main Form** tab are recalculated, any linked records associated with the deleted line item are removed from the **Main Form Linked Records** tab, attachments associated with the deleted line item are removed, and the audit log is correspondingly updated.

3) Save the Excel file.

When BP records and line items that have auto-populate data elements defined from pickers (all data pickers, BP picker) are updated through Excel update, the auto-populate data elements from the picker are *not* updated when the picker value is not included.

> **Note:** Auto-population is also not triggered if the picker element is in the Main form of the record, when the Excel update includes the same value for the picker.

Additionally, when a picker (destination picker) in a detail form is designed to be is auto-populated from another picker (source picker) from the **Upper** form, the system auto-populates the data elements from the former picker (destination picker) when a line item is created, only if a picker value (from the source picker) exists in the **Upper** form.

Importing the Excel File for Bulk Update

After *Modifying the Excel File for Bulk Update* (on page 199), import the data using Bulk Update as follows:

1) Switch to **User** mode.
2) In the left Navigator, select **Logs** and select a Business Process (BP).

   For example, select **Logs** and select **Change Orders**.
3) From the toolbar, click **Bulk Update** and select **Import Data**.
4) In the **Upload Microsoft Excel File** dialog box, navigate to the Excel file (.XLSX) and click **Upload**.
5) Review the status of the imported data in the email notification you receive.
   - If the import process is **Completed Successfully**, you will receive a success message.
   - If the import process is **Completed with Errors**, check the attached error file containing a list of erroneous records.

     Or
   - Click **Bulk Update** and select **Import Data History Details** to check for error details or update failures of records or line item updates if any.
6) Correct the errors identified in the error file and reuse the error file to re-import the data. For more information, see *Reusing the Error File For Bulk Update Import Process* (on page 206).

Notes:

- Attachments updates are not supported in the Excel import.
- A maximum of 50,000 records, including the column headers can be imported per Excel file.
- Resolve **Upper** form errors before resolving any line item errors.
- Required fields must be entered in the **Main Form** tab of the Microsoft Excel file prior to a bulk edit import process.
- Line items that do not exist will be ignored by the system during bulk import.
- All post-completion actions for a record are performed for workflow actions through bulk update.
- If you modify the design in the **Business Process Integration** form for a business process that is already loaded in the **BP Log** node in **User** mode, you must reload the **Business Process Log** node to ensure the most recent changes in the design are reflected.

Supported Data Elements For Bulk Update in Excel Import

The following are lists of data elements that are supported and not supported by the Bulk Update import process.

Supported Custom Data Elements

The following type of custom data elements that can be updated via Excel Import:

- Currency Data Elements
- Decimal Amount
- Integer Amount
- All types of pull downs and radio buttons (integer and string)
- Text, Long text ,multi select type data elements
- BP pickers
- CBS picker
- All types of Data Pickers
- Dynamic data set elements (Including behavior elements)
- Date Pickers
- Date-only pickers
- Activity Picker
- Hyperlink
- BP URL

Not Supported Data Elements

The following data elements cannot be updated via Excel Import:

- Record Number

- Line No
- Any data element whose integration is set as Output only
- Rich text data elements
- Linked data elements
- Standard elements
- Any uuu elements which currently cannot be updated using RestV1 services
- BP Creators, Lineitem Creators
- Image pickers
- Line item status
- Cost Line item type
- Tab Name
- Cmx Pickers
- Fund pickers
- Account code pickers
- WBS Picker
- OBS picker
- Currency Pickers

Viewing Bulk Update Import Data History Details

If you have the **Allow Bulk Edit** permission, you can view the import data history details for the files that you imported.

To view the import details history:

1) Switch to **User** mode.
2) In the left Navigator, select **Logs**, and select **Business Processes**.
3) In the right pane, click **Bulk Update** and select **Import Data History Details**.
4) Review the following information in the imported Excel file:

   - **Input File**: The name of the Microsoft Excel file (.xlsx) used for import.
   - **Upload Date**: The date on which the file was imported into the application.
   - **Start Date**: The start date and time of the import process.
   - **Finish Date**: The end date and time of the import process.
   - **Job Status**: Displays the job status of each imported file as any of the following:
     - **Not Started**: Indicates the import is yet to commence.
     - **Preempted**: If a job is not picked up by the system for some reason, the **Job Status** remains **Not Started**. After a period of time, the status changes to **Preempted**. When you click the **Job Status** field on the **Import Data History Details** page, the system displays a message similar to: `The system will continue the import process of the row data provided in the input file '<filename.xlsx>'. Do you want to continue?` To continue, click **Yes**. The status should update to **In Progress**.
     - **In Progress**: Indicates the import job is in process.

- **Completed Successfully**: Indicates all records and line item data have been successfully updated.
- **Completed with Errors**: Indicates records were partially updated, or failed to update at least one record. For more information, see *Viewing Error Details of the Bulk Update Import Process* (on page 204).
- **Aborted**: Indicates the job could not progress due to system issues or server failures.

▸ **Error File**: Displays the name of the file containing the list of erroneous records. For more information, see *Error File Format of Bulk Update Import Process* (on page 205).

▸ **Records Processed**: The sum total of the BP records in the **Main Form** worksheet and the Line Item worksheets, if any, in the Excel file.

Viewing Error Details of the Bulk Update Import Process

The **Import Data History Details** window displays a log of all the files imported, and their outcomes for a business process.

If the import process is successful, the **Job Status** indicates *Completed Successfully*.

If the import process is *Completed with Errors*, you can either download the input file or the error file to correct the data and re-import.

If the import process is *Preempted*, you can continue the import process by clicking the **Job Status** field and selecting **Yes**.

If the import process is *Aborted*, you can continue importing the remaining data.

> **Note:** If you have the **Allow Bulk Edit** permission, you can view the import data history details for the files you imported.

To view the outcome of the import process:

1) Switch to **User** mode.
2) In the left Navigator, select **Logs**, and select a business process (BP). For example, select **Logs**, and select **Change Orders**.
3) In the right pane, click **Bulk Update**, select **Import Data History Details**.
4) If the import process is **Completed with Errors**, select that row to perform any of the following actions:

   ▸ Download the *input file* using any of the following options:
   - Click the **gear menu** (⚙) of the row and select **Download Input File**.
   - From the toolbar, click **Download** (⬇), and select **Input File**.

   Correct the data in the input file and re-import as outlined in *Updating BP Records in Excel for Bulk Update From Business Process Log Node* (on page 186).

   ▸ Download the *error file* using any of the following options:
   - Click the **gear menu** (⚙) of the row and select **Download Error File**.

- From the toolbar, click **Download** (⤓), and select **Error File**.

   Correct the data in the error file to re-import as outlined in *Reusing the Error File For Bulk Update Import Process* (on page 206).

   ▸ Click **View Error Details** (⧉) to review a list of erroneous records in the **Import Error Details of <filename>** window.

5) If the import process is **Aborted**, click **Re-import** in the **Job Status** field of the import job to continue importing the remaining records.

   You can also perform any of the following actions:

   ▸ Click ↻ **Refresh** to refresh the **Import Data History Details** window.

   ▸ Click 🔍 to open the **Search** window.

   ▸ Click ≡q to search and locate a specific input file in the **Import Data History Details** window.

   ▸ Click 🖶 to print the list of entries displayed in the **Import Data History Details** window as PDF, or export and save in any of the following file formats: .html, .csv, or .xlsx.

Error File Format of Bulk Update Import Process

When the Bulk Update import process is **Completed with Errors**, a list of erroneous files is generated in a Microsoft Excel file (.xls).

Use any of the following methods to download the error file:

▸ Download the error file from the **Import Data History Details** window.

   For more information, see *Viewing Bulk Update Import Data History Details* (on page 203).

▸ Download the error file from the email notification you receive when the import process is **Completed with Errors**.

The error file contains the following worksheets/tabs:

▸ **Instructions** worksheet

   The **Instructions** worksheet is generated automatically. Depending on the type of business processes included in the error file, this worksheet describes how to resolve errors identified in the BP records and line item data.

▸ **Main Form** worksheet

   The **Main Form** worksheet contains a list of erroneous records that did not get imported into Unifier Essentials. It is generated automatically as the second worksheet in the error file. It is recommended to not rename or reorder this worksheet.

   ▸ **Column A** of the **Main Form** describes the error for each erroneous record.

> **Note**: All line items associated with the erroneous record in the **Main Form** tab will not be validated. Therefore, the error file may not show all errors related to the line items for the erroneous record.

- ▸ The following fields/data elements in the worksheet are read-only: **Record Status**, **Creator, Creation Date, Currency ID**, **Due Date**, **Status in WF**, **BP**, **Formula Data Elements**.
- ▸ Data elements that are set to auto-populate from the sum of all line items data elements from the Integration Validation Form.
- ▸ The line item tab order is identical to the order in the selected records.
- ▸ Custom date formats are honored.
- ▸ The name of the worksheet is translated according to the user's language preference.

▸ Line Item Tab Worksheets

Line Item tab worksheets with erroneous records are color-coded orange.

Each Line Item tab worksheet is organized as follows:

- ▸ **Column A** describes the error for each line item record.
- ▸ The line item records and the data elements of each tab display in the same order as in the user interface.
- ▸ Each line item record displays begins with read-only fields in the following order: **Record ID**, **Line Item ID**, **Record number**, and **Line No**. These fields cannot be renamed, reordered, duplicated, or removed from the file.
- ▸ The formula data elements and auto-populated data elements are read-only fields.
- ▸ Worksheet names do not support the following special characters: \ / ? * : [or]

Reusing the Error File For Bulk Update Import Process

If the bulk update import process is **Completed with Errors**, an error file (XLSX) is generated with a list of erroneous records identified by the import process. You can resolve these errors and reuse the error file to re-import the records.

> **Note:** You should have **Allow Bulk Edit** permission, to import or re-import BP records using a Microsoft Excel file (.xlsx) from the **Business Process Log** grouping node.

The generated error file adheres to *Error File Format of Bulk Update Import Process* by default.

To reuse the error file for re-import:

1) In the **Main Form** tab, resolve the errors identified for each BP record.
2) In the relevant **Line Item** tabs, if any, resolve errors corresponding to the BP record in the **Main Form** tab (Step 1).
3) In the **Action** field, select the **Update** option for each record. Otherwise, by default, the line item will not be updated when set to a **Blank** value.
4) After resolving all errors, delete **Column A** in the **Main Form** tab and relevant **Line Item** tabs to clear all identified errors.

5) Save the modified error file to prepare for import.

6) Import the error file as described in *Updating BP Records in Excel for Bulk Update From Business Process Log Node* (on page 186).

Auditing Business Processes (Audit Log)

The business process (BP) **Audit Log** tab lists the actions that have been taken on a specific BP record. The following table describes the events that are, or are not, captured in the **Audit Log** tab.

> **Note:** Unless noted otherwise, the following information applies to both workflow and non-workflow BPs.

The following events are captured in the BP Record Audit Log:

▶ Workflow - *<Action>* (via Bulk Update)

▶ Workflow steps

   When and to whom (To and Cc) each step was sent (workflow BPs)

▶ Record creation date (non-workflow BPs)

▶ Comments, including changes to the Hidden Comment checkbox and an entry that indicates whether a user deleted a comment

▶ File comments

▶ Linked Mailbox

▶ Linked records

▶ Add or manage Document-type BP folders: new, remove, rename, move

▶ Add, remove, open, view, or download file attachments

▶ Decline task

▶ Transfer ownership

▶ Add, modify, or delete a line item: detail or summary

▶ File attachments to existing line items

▶ Copied (cc) user views the record

▶ Updates performed on any part of the BP using the Reverse Auto-Population feature

▶ Update user web service calls

   When user(s) are added or removed using REST API services

▶ Bulk Update Import Data

▶ Record print

   The entries include:

   ▶ Printing from BP record

   ▶ Single & Bulk Printing from the BP log

   ▶ Single & Bulk Printing from the Tasks log

   The log entries are:

- ▸ Event - Print, and then select <Print Type>
- ▸ Action - Run Print
- ▸ User Name - User who ran the print

The print type can be *PDF*, *HTML*, or *Custom Print*. For *Custom Print*, the format in Event is Print, select Custom, and then select <Template : Format>

▸ Disabled and Clear

The Audit Log captures the number of clearing and disabling of data fields, based on the Disabled and Clear behavior set option in a DDS.

The following events that occur on the *Unifier Mobile App* are captured in the BP Record Audit Log:

- ▸ Record creation
- ▸ Record update
- ▸ Line Item addition
- ▸ Line Item update

The following events are *not* captured in the BP Record Audit Log:

- ▸ Actions undertaken at the creation step
- ▸ Accept task
- ▸ Undo accept task
- ▸ Add assignees or copy users between steps

Audit Log of Task Reassignments

When a Company Administrator reassigns a task, the BP Record Audit Log displays the following information:

- ▸ **Date:** Date and time stamp of the task reassignment
- ▸ **Event:** Task Reassignment
- ▸ **Action:** Task has been reassigned
- ▸ **Field:** Assignee
- ▸ **Old Value**: The user name of the previous assignee
- ▸ **New Value**: The user name of the new assignee
- ▸ **User Name**: The name of the administrator who reassigned the task

Using the BP Visualizer to View Business Processes

You can use the BP Visualizer to view information about BPs deployed in your environment and detailed information about each one, including their statuses, forms, logs, workflows, references, integrations, data elements (DEs), data definitions (DDs), and general information. You can view the cross-references between BPs and various objects, such as DEs. You can also use the BP Visualizer to compare different versions of a BP to examine the changes that have been made to it.

To access BP Visualizer node, you must have the View permission, which can be granted by an administrator.

To set the View permission:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **User Administration**, and then select **Access Control**.
3) In the right pane, expand **Administration Mode Access**, expand **System Information**, and select **BP Visualizer**.
4) In the **Module Permission Settings** window, click the **Add** button.
5) In the **Permissions Setting for <selected item>** dialog box, click the **Add Users/Groups** button.
6) In the **Users/Groups** window, select the intended users or groups and click the **Add** button.
7) To return to the Permissions Settings for <selected item> dialog box, click **OK**.
8) In the **Select Users/Group** section of the window, select the users or groups, and then select the **View** level of access for the user or group in the **Permissions Settings** section.
9) To save your selections and return to the **Module Permission Settings** window, click **OK**.
10) Click **Apply** to save changes and keep the window open, or click **OK** to save changes and close the window.

To access the BP Visualizer:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.

   The Business Process list is displayed.

   You can scroll through the list of BPs, use the up and down arrows next to the headings to sort information in an ascending or descending order, or use the **Filter** option to refine the display (for more information, see *Filtering the List in the BP Visualizer*). You can click any BP in the list to see detailed information about it, such as forms, logs, and workflows.

The BP Visualizer log includes information for each BP ranging from the ID and name through the date that it was created and the date on which it was last modified. After you select a BP, the page for that BP provides the following tabs:

Tab	Description
General	Provides high-level information about the BP, such as the ID, Name, Version, and Type.
Statuses	Identifies the statuses available for the BP, such as Completed, and indicates whether the status is a Terminal one.
Forms	Lists the forms that are part of the BP, such as Upper, Detail, and View, and provides access to details about each form.
Logs	Indicates the logs that are updated as part of the BP and provides access to details about each log.
Workflows	Lists the workflows that the BP can follow and lets you view the workflow itself. For non-workflow BPs, this tab is empty.
References	Lists the cross-references that might involve the BP, ranging from a BP that might result in the automatic creation of the selected BP to all the pickers, data elements (DEs), and attributes.
Integrations	Provides data integration information, such as the labels and DEs, and indicates whether data flows in one direction or both.
Data Elements	Provides detailed information about each DE used in the BP.
Data Definitions	Provides detailed information about each data definition (DD) used in the BP.
Compare Versions	Lets you compare any two versions of the BP and view all changes or filter to show only information that was changed, added, or removed.

In This Section

Filtering the BP Visualizer List

To filter the list of items displayed:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.

   The Business Process list is displayed.
3) In the **Filter** field, type text to filter by.

   The Filter applies to the following fields: **ID**, **Name**, **Type**, and **Source**.

   The list of BPs is updated to display BPs that contain the text you typed.

Examining Forms

You can use the Forms tab to view the forms that are part of the selected BP. For example, you might want to see if an Action or View form is part of the BP, and if so, what triggers it. You can drill down through the Forms of a BP and look at various fields and properties.

To examine the forms of a BP:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.
3) Click a BP.
4) In the **BP Visualizer [BP Name]** window, select the **Forms** tab.

   A list of forms is displayed. You can open any of the forms and view more detailed information.
5) To return to the list of BPs, click **Show BPs** ≡ in the upper-left corner.

Examining Workflows

You can use the Workflows tab to view the different workflows that the selected workflow BP might be used in. You can drill down through a workflow and look at the steps involved using different presentations. You can also review the information available for each step, such as the corresponding status for a BP record.

To examine the workflows of a BP:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.
3) Click a BP.
4) In the **BP Visualizer [BP Name]** window, select the **Workflows** tab.
5) In the list of workflows, click **Data Workflow** ⌐□ for the one that you want to view.
6) To return to the list of BPs, click **Show BPs** ≡ in the upper-left corner.

Examining References

You can use the References tab to view the all the links within a BP and between the selected BP and others.

To examine the references of a BP:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.
3) Click a BP.
4) In the **BP Visualizer [BP Name]** window, select the **References** tab.
5) Use the various options, such as **Layout**, to change the display.
6) To return to the list of BPs, click **Show BPs** ≡ in the upper-left corner.

Comparing BP Versions

You can compare any two versions of a BP design.

To compare versions:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **System Information**, and then select **BP Visualizer**.
3) Click a BP.
4) In the **BP Visualizer [BP Name]** window, select the **Compare Versions** tab.
5) In the **Comparing** section, select a version from the **Version 1** list and the **Version 2** list.

   Differences are listed in alphabetical order for the elements that have changed. System-generated changes are also included in the comparison.

   You can use the options in the **Filter** to display all modifications or to display only specific changes.

   ▸ **All:** Displays all differences.
   ▸ **Modified:** Displays the data that has been modified in the second version. Items that differ between the two versions are highlighted in yellow.
   ▸ **Added:** Displays the data that has been added to the second version. Items that exist in the later version but not the earlier version are highlighted in green.
   ▸ **Deleted:** Displays the data that has been removed from second version. Items that exist in the earlier version but not in the later version are highlighted in pink.

6) To see detailed information about the modifications made to any part of the BP, expand the branches of the configuration.
7) To return to the list of BPs, click **Show BPs** ≡ in the upper-left corner.

Printing and Distributing BP Forms

At times, you may need to print copies of a Business Process form, such as an invoice or a purchase order. You can save a copy of the form as a PDF file and print or email the file, print an HTML view, or print from a Word file if a custom print layout has been created for the form.

Notes:

▪ You can print a form that is in view mode or in edit mode.
▪ The print output is based on your permissions to certain data in the system. If you cannot see the hidden comments in a particular step

within a Workflow, the hidden details will not be printed and will not be visible in the Custom Print.

Print a BP Form in Different Formats

When printing business process forms from PDF or HTML format, you can choose to include not only the information on the form itself, but also associated information such as comments and information about file attachments. The print options are:

▶ Upper form data
▶ Workflow progress information (for business processes with a workflow)
▶ Line item list
▶ Line item data
▶ Comments made to the record
▶ Information about file attachments on the record or line items
▶ Comments made to file attachments

Note: Some fonts may not be supported. Ensure that you adjust your language settings correctly (go to region format tab and review changing language topics in the Help) in cases of printing a BP form or attaching a pdf version of a BP form to an email when a workflow is routed.

If custom print layouts have been created for the business process, the form will print according to the layout that you select.

Note: For PDF and HTML layouts, the ability to print hidden comments will respect permissions: if you can see hidden comments, you can print them. In custom print, hidden comments are not printed.

To preview and print a business process form:

Note: Workflow Progress section in Print options is driven by permissions. If you can see workflow progress, you can print the workflow progress.

1) Open the BP record that you want to print.
2) From the **Menu Options** (☰), hover over **Print**, and then choose one of the following:
   ▸ **HTML** to view the form in the browser which can then be printed.
   ▸ **PDF** to open the form in Adobe Acrobat Reader, which can be saved or emailed as a PDF file, or printed process, you are asked to save the changes to the form.
   ▸ **Custom** to select the Oracle Analytics Server, Microsoft Word, and PDF custom print templates from the same place as the current custom prints (Custom Format Print selection window).

> **Note:** Even if you have not made any edits, you may be asked to save changes. This can occur if the form includes fields that are auto-populated or automatically updated, as these automatic functions are considered to be changes.

3) The Print Options window opens.

   This window displays the business process record information that can be printed; see the table below. Select the checkboxes for the information that you want to print. Only those options that are applicable to that business process design will appear on the Print Options window. For example, line items options are available for business process types that support line items, the Task Details option appears only for workflow business processes.

4) To select all the checkboxes, click **Select All**. To deselect all, clear **Select All**.

   Selecting or deselecting this checkbox will have no effect on any Workflow Progress options you choose.

5) Click **Print**. The preview form opens in an HTML window, from which you can print.

   If you chose PDF, the PDF file may automatically download to your system based on your browser.

Print option	What it prints
Upper Form	Selected by default. This prints the information entered on the upper form.
Workflow Progress	Prints a log of the steps in a workflow, showing the step name, the assignee(s) on the step, the action that was taken on the step and the completion date. You have additional print options: All Steps will include all the steps in the workflow, whether or not users visited them. The steps will be listed in order according to the workflow setup. All assignees on each step will be listed in the log, whether or not they acted on the step. Visited Steps will include only those steps that have been visited by users. Only the assignees who acted on the steps will be listed. You can display the steps sorted by the completion date or the step name, in ascending or descending order.
Line Item List	Selected by default. This prints line information as it appears on the business process form itself. This is applicable for business processes that support line items. **Note**: The number of line items determines the time taken to generate the pdf.

Print option	What it prints
Comments	The comment text and create details are printed.
Record Attachments	File attachments to the record are listed alphabetically by file name and include the file title, issue date, revision number, and file size. This is not applicable for document type business processes, which list file attachments in the line item section.
Record Attachments option, Comments suboption	Prints comments associated with file attachments to the record. Record Attachments must also be selected to select this option.
Detail Form	Line item data is displayed in order by line item and grouped by tab if the business process has multiple line item tabs. This prints all line item data elements present on the detail form and reflects the layout of the detail form (for example, if the detail form is two-column, the print data is displayed in two columns).
Detail Form option, Attachments suboption	Prints information about attachments to each line item. Detail Form must also be selected to select this option.
Detail Form option, Attachments suboption, Comments suboption	Prints comments associated with file attachments to a line item. Detail Form and Attachments must also be selected to select this option.

Oracle Analytics Server custom print in I Step BP records

In I step BP records, and where the record number does not exist for a record, if you print the BP record using an Oracle Analytics Server custom print template, the print output will be blank.

> **Note:** You cannot print a Portal Enabled BP record in the Creation step.

Custom Format Print Options for BPs

Custom Format Print Window for a non-Workflow BP

The Custom Format Print window, for a *non-Workflow* BP, has two sections:

‣ Select a custom print template

▶ Select a template and format to print

Both sections facilitate custom print template and format selections.

Select a custom print template

Lists all the custom print templates existing for the non-workflow BP, including the custom print templates created in the **Custom Templates** functional node and the custom print templates created in the configuration of the non-workflow BP. For example, the list may include Oracle Analytics Server, Word, and PDF custom print templates.

If there are multiple custom print templates for the same non-workflow BP, all the published templates are listed in this section.

The "Select a template and format to print" is populated by the selection made in the "Select a custom print template" section.

Select a template and format to print

▶ If you select an Oracle Analytics Server custom print, you can select the desired template and format from the drop-down lists.

▶ Template drop-down displays all the available templates for the selected format.

▶ Format drop-down displays the available formats for the selected template.

▶ If the custom print template was created using PDF or Word, the "Select a template and format to print" is disabled.

Default template and format (non-Workflow)

▶ If an Oracle Analytics Server print template is selected, the default values in the drop-down lists are set based on the default in the custom print template.

▶ When an Oracle Analytics Server print template is selected in the "Select a custom print template" section, the template and format are populated based on the default value selected at the time of designing the print template.

Custom Format Print Window for a Workflow BP

If there is only one custom print template, and it happens to be an Oracle Analytics Server template, the print template is selected in the "Select a custom print template" section, and the template and format are populated based on the default value selected at the time of designing the print template.

The Custom Format Print window has three sections for a Workflow BP.

▶ Select a custom print template
▶ Select a template and format to print
▶ Select options for Workflow Progress

By default, when the Custom Format Print window is launched, all three sections are enabled and the first template is selected. The options seen in the subsequent sections are based on the selection made in the "Select a custom print template" section.

You can select options for workflow progress in the 'Select options for Workflow Progress" section of the Custom Format Print window for PDF and Word templates, which are created at the time of configuring the non-workflow BP.

If the selected custom print template is of an Oracle Analytics Server type, the "Select options for Workflow Progress" section is disabled. This is because the custom print template designers can always use the system provided Workflow views to include workflow-related information in the template.

Default template and format (Workflow)

▶ When an Oracle Analytics Server print template is selected in the "Select a custom print template" section, the "Select a template and format to print" section is populated based on the default value selected at the time of designing the print template.

▶ If there is only one custom print template and it is an Oracle Analytics Server template, the print template is selected in the "Select a custom print template" section, and the template and format are populated based on the default value selected at the time of designing the print template.

> **Note**: If your custom print is a draft business process record, the modified record values will not be displayed in the Output of the Oracle Analytics Server print.

Custom Format Print Window for Shells

In addition to editing shells that you have permissions for, you can view all Custom Print Templates and define them at the shell level. After you navigate to your system logs, you must select a BP. After you choose an item from the list of available items in the BP, click the **Settings** icon and select the **Print - Custom** option.

When you select **Print - Custom**, a new window is displayed where you can choose a Custom Print Template from the list. Upon choosing one of the available Custom Print Templates, select **Print**.

> **Note**: If you copy a shell that has an existing setup and the **BPSetup** module is selected, the Custom Print Templates are also copied.

Print Using a Custom Layout

Custom printing can be used with templates created in Oracle Analytics Server, Microsoft Word, and PDF format. Depending on the template used for custom print, you can print the upper form, the current workflow step, comments, and attachments of the record. The template may also allow printing of specific line items in their tabs. The printed output will list the name of the tab with the line items following on separate lines.

To print a BP form with a custom print layout:

1) Open the business process record that you want to print.

2) From the **Menu Options** (≡), hover over **Print**, and then choose **Custom** to select the Oracle Analytics Server, Microsoft Word, or PDF custom print templates from the same place as the current custom prints (Custom Format Print selection window).

   If you are editing the business process, you are asked to save the changes to the form.

> **Note:** Even if you have not made any edits, you may be asked to save changes. This can occur if the form includes fields that are auto-populated or automatically updated, as these automatic functions are considered to be changes.

3) Select a template and format.

4) Select Workflow progress options.

   For details on non-Workflow progress options, see the *Unifier Essentials Managers Reference Guide.*

   Workflow progress prints a log of the steps in a workflow, showing the:

   ▸ Step name
   ▸ Assignee: on the step
   ▸ Company: the assignee company
   ▸ Status: of the step
   ▸ Action: on the step

   You have additional print options:

   ▸ All Steps will include all the steps in the workflow, whether or not users visited them. The steps will be listed in order according to the workflow setup. All assignees on each step will be listed in the log, whether or not they acted on the step.

   ▸ Visited Steps will include only those steps that have been visited by users. Only the assignees who acted on the steps will be listed. You can print the selected steps (including the current workflow step) sorted by completion date or step name, in ascending or descending order.

5) Click **Print**. The File Download window opens.

6) Choose to Open or Save the file.

7) Print the file.

Send a PDF Copy of a BP Form via Mailbox

You can create and send a PDF copy of a business process record directly from your mailbox.

To send a PDF copy of a BP form using Mailbox:

1) Open your inbox.

2) Double-click a mail item that is linked to the business process record you want to send.

   If it is linked to a business process record, you will see a caption under the subject line that reads, **This mail and any future replies are linked to business process records.**

3) Click the **business process records** link to open the Linked Business Process Records window.

4) Double-click a record to open it.

5) Click the Menu Options (≡) in the corner, and select Email as Attachment. The message window will open with a PDF file of the business process record attached below the subject line.

6) Complete the message and send.

Auto-Populating BP Data Picker on BP Auto-Creation

When a source business process (BP) record has a BP creator that auto-creates another BP record that has a BP Data Picker referencing the source BP record, the BP Data Picker values will be auto-populated referencing the source BP record, even when the source BP record is in a different shell.

The auto-creation of the destination BP records (from source BP record) can be either of the type:

▸ Record to Record or
▸ Line-item to Record

Both types support the BP Data Picker in destination record that will be auto-populated.

> **Note**: The system ignores the queries that have been defined for the BP Data Picker.

The source BP record in a Project/Shell can auto-create another BP record in the same Project/Shell

As a result, when the source BP (BP A) record and the auto-created BP (BP B) record reside in the same Project/Shell, the BP Data Picker in the auto-created BP (BP B) record is auto-populated with reference to the source BP (BP A) record, similar to all BP Pickers.

The source BP record in a Project/Shell can auto-create another BP record in different Projects/Shells

As a result, when the source BP (BP A) record and the auto-created BP (BP B) record reside in different Projects/Shells, the BP Data Picker in the auto-created BP (BP B) record is auto-populated with reference to the source BP (BP A) record.

Auto-Populating BP Line Item Data Picker on BP Auto-Creation

When a record is auto-created from a line item:

▸ If the created record has a BP Data Picker, it will be populated with a reference to the source record. If the upper form also has the BP Line Item Data Picker, it will be populated with a reference back to the line item on the source record.
▸ If the created record has a BP Data Picker on the detail form, the line items copied from the source will have the picker populated with a reference to the source record. If the detail line also has BP Line Item Data Picker, it will be updated with a reference to the detail line. You can auto-populate back to the source upper or detail form.
▸ BP Line Item Data Picker displays the line item based on query conditions that are evaluated similar to Data Picker in the auto-created record.

When a record is auto-created from another record upper form:

▶ If the created record has a BP Data Picker, it is populated with a reference to the source record and any Line Item Data Picker on record is empty.

▶ If the created record has a BP Data Picker on the detail form, the Line Items copied from the source will have the picker populated with a reference to the source record. If the detail line also has BP Line Item Data Picker, it will be updated with a reference to the detail line. The design can then auto-populate back to the source upper or detail form.

▶ BP Line Item Data Picker displays the Line Item based on query conditions that are evaluated similar to Data Picker in the auto-created record.

When a line item is auto-created from source BP line item:

▶ If the source record has a BP Line Item Data Picker, it is populated with a reference to the auto-created line item, provided BP Data pickers refer to the source record.

Auto-population of data elements, based on BP Line Item Data Picker, is supported.

When you select a Line Item Data Picker without selecting a BP Data Picker, the system displays a picker window without line items.

When you change the selection in a BP Data picker, if there is already a line item selected, the system displays the message: You cannot change a BP Data picker that has line item(s) associated with it.

Upon copying a record, the selected values for a BP Line Item Data Picker will be copied from the source record.

Upon auto-creation of the record or line item, the value for the BP Line Item Data Picker (on the destination record or line item) is retained from the source. The value of the BP Data Picker is also retained on the destination from the source.

A data element that is based on a Line Item Data Picker data definition is supported as part of HTML or PDF prints. The Display Element value is printed as part of HTML or PDF prints.

A Line Item Data Picker element is available as part of Custom Print schema so that you can use it on Custom print XML file. At runtime the Display Element value will be printed.

Auto-Populating Record Due Date on BP Workflow Auto-Creation

To ensure auto-created destination BP workflow records display a record due date at run-time, you can define either the **Duration Element** or **Due Date Element** during auto-creation setup. This applies to source business process (BP) workflow records that have a **BP Creator Element** to auto-create another BP record.

The auto-created destination BP records (from source BP record) can be either:

▶ Record to Record or
▶ Line-item to Record

The **Due Date Element** field displays those date picker elements that have been specified in the upper forms or detail forms.

Depending on the entries made in the forms provided, Auto-creation Setup, Unifier Admin, and the source record in User mode, the **Due Date** field in the auto-created destination BP will be populated as described below.

Due Date Behavior in Auto-Creation Settings

uDesigner Auto-Creation Setup (Due Date or Duration Element)	Duration Value in Admin Mode (Auto-Creation Setup)	Due Date Behavior
Neither Due Date nor Duration Element is specified	Not defined	The system assigns a Due Date based on Workflow Settings of the auto-created BP record.
Neither Due Date nor Duration Element is specified	Defined	The Due Date is calculated based on the defined Duration days in Admin mode.
Due Date Element is specified	Defined	If the source record includes a Date Element, the auto-created BP record inherits the source record's Due Date.
Due Date Element is specified	Defined	If the source record does not include a Date Element, the Due Date is calculated based on the Duration value in Admin mode.
Duration Element is specified	Not defined	If the source record does not include a Date Element, the Due Date is calculated based on Workflow Settings of the auto-created BP record.

Updates on Document Attributes for Business Processes

When a document gets published to the Document Manager (DM), the document attributes get updated by matching DEs from the BP record. If the matching DEs on the source record get updated during the life of the record, the corresponding DM attributes can get updated, if it has been configured to do so.

If the **Update attributes for already published documents** option is enabled on a BP Upper Form at a given step, the attributes of all record and line item published attachments will be updated according to the matching DEs between the record and the DM Attribute Form. Also:

If the **Update attributes for already published documents** option is enabled at multiple steps, the DM attributes gets updated at each such step.

For a Workflow type BP:

If the **Update attributes for already published documents** option is enabled on a current step, the DM attributes get updated as the record is routed to next step.

If the user causing the record to move to next step does not have **Modify Properties** permission on a document, the DM attributes get updated, if the **Update attributes for already published documents** option is enabled.

If the end step has an edit form, the DM attributes get updated at each save of the record, if the **Update attributes for already published documents** option is enabled.

For a non-Workflow type BP:

The attributes get updated when the record is **Finish Edited**, if the **Update attributes for already published documents** option is enabled.

If the user who edits the record does not have **Modify Properties** permission on a document, the DM attributes get updated, if the **Update attributes for already published documents** option is enabled.

For both Workflow and non-Workflow type BPs:

If the attribute on DM form is set to **Formula** or **Auto-populate with a Constant Value**, the attributes get updated from the BP if there are matching DEs with the BP form; however, when you manually open the **Properties**, and click **OK**, the **Formula** or **Auto-populate with a Constant Value** on the DE gets recalculated and repopulated.

If a BP record is created by attaching file(s) from the DM directly, and the **Update attributes for already published documents** option is enabled, the files are treated as a published document(s) and their attributes get updated as the record progresses in workflow, or the record is **Finish Edited**.

> **Note**: If the **Update attributes for already published documents** option *is not enabled*, there will be no update of DM attributes as a record progresses in workflow, or the record is **Finish Edited**.

Business Processes with Special Behaviors

Some business processes have special features and behaviors that make them operate differently from most business processes in the system. These business processes and their features are described in this section.

For information about internationalization and CSV files, refer to the *Unifier Essentials General Administration Guide*.

In This Section

Schedule of Values (SOV) Sheets and Business Processes

This section discusses how to manage BP records, including searching for existing BPs, transferring ownership, viewing BP properties, and viewing Schedule of Values (SOV) or funding information from within a Cost type BP.

> **Note:** If you configure specific Data Elements (DEs) to auto-populate from a Base Commit BP, do not configure the same auto-population using CSV, Microsoft Excel, or REST API in an SOV sheet for General Spends, Payment Applications, or Summary Payment Applications.

View an SOV sheet from the BP form

Commit (contract) or spend (invoice) BPs can be set up to automatically create a Schedule of Values (SOV) sheet. These transactions can be easily accessed directly from the BP form. The BP form remains active.

If the BP has been set up to automatically create an SOV sheet, an SOV button appears at the top of the BP form after the SOV sheet has been created.

For more information about Schedule of Values (SOV) sheets, see **Schedules of Values (SOV)** in the *Unifier Essentials Managers Reference Guide*.

To view the SOV sheet created from the Cost type BP:

1) Wait for the BP to reach terminal status.

2) Open the business process and click the **Menu Options** (☰).

3) Click **SOV** to open the SOV sheet that corresponds to the transaction.

4) Close the SOV sheet to return to the BP form.

Create SOV breakdowns

You can add SOV breakdowns from this view. Breakdowns are only in use in the SOV sheet, not the cost sheet. If another transaction exists for the CBS code, you will not be able to do a breakdown.

To add CBS code breakdowns that can be used to create invoices:

1) Open the business process and click the **Menu Options** (☰).

2) Click **SOV** to open the SOV sheet that corresponds to the transaction.

3) Click a listed CBS code from the sheet. The CBS Detail window opens.

4) Go to the **Breakdown** tab in the right pane.

For more information about adding CBS breakdowns, see **Adding Breakdowns to SOV sheet by Importing** in the *Unifier Essentials Managers Reference Guide*.

View, or edit, fund transaction details from the BP form

Commit (contract) or spend (invoice) BPs can be set up to consume or appropriate funds in the project/shell funding sheet. These transactions can be easily accessed directly from the BP form.

If the BP form has been set up for funding (and is in the appropriate step, and you have funding permissions), a Funding button will appear at the top of the BP form. This lets you perform a fund assignment while routing and approving a BP, such as a payment. Access to this button and fund information is dependent upon your Fund Manager permissions.

For more information, see **About business processes enabled for funding** in the *Unifier Essentials Managers Reference Guide.*

Composite view of Base Commits and Change Commits

You can view a composite view of both Base Commits and Change commits. The SOV sheet is used as a composite view, and the SOV sheet will be the composite of the PO and all added lines from Change commits.

To support the line-item mode, the SOV sheet has a column called **Ref** that represents line item numbers.

There are other fixed columns, and the columns will be dependent on the mode.

▸ **Line item mode:**

▸ The **Ref** column represents the line item numbers for both Commits and Change Commits.

▸ The **Description** column shows the short description of the line item from the Commit.

▸ **CBS mode:**

‣ The **Ref** column does not have any data. The breakdown items do not include a ref number. The column width is four characters.

To view funding details from the Cost type BP:

1) Wait for the BP to reach terminal status.

2) Open the business process and click the **Menu Options** (☰).

3) Click **Funding** to open the Funding sheet that corresponds to the transaction.

4) Review the details of the transaction.

> **Note**: This is the same window that you would see if you clicked on the link corresponding to this transaction on the project/shell funding sheet.

To reassign funding, click **Fund Assignment**. For more information, see **About business processes enabled for funding** in the *Unifier Essentials Managers Reference Guide*.

Payment Application Business Processes

A Payment Application BP lets you track the payment information using the standard payment application method, such as tracking retainage, stored materials, past payments, and so on. Each Payment Application BP record references a particular Base Commits record. The line items on the Payment Application BP will reflect the line items on the Base commits as well as any associated Change Commits.

A project/shell can include more than one Base Commit BP with Payment Applications and SOVs. When a shell is created from a shell template that has multiple Base Commit BPs which creates different payment application SOVs, multiple Change Commits that updates different payment application SOVs and multiple payment application BPs, those business processes are automatically included in the created shell with the SOV structures.

When multiple Base Commit BPs are included in a project/shell, you can:

▸ Create multiple Base Commit records that create different payment application SOVs
▸ Create multiple Change Commit records that update different payment application SOVs
▸ Create multiple payment application records that update different payment application SOVs
▸ Create multiple payment application SOV structures
▸ View new SOV nodes that display the log of the Base Commit records that creates the Payment Application SOV structure

> **Note:** If the sum of costed lines ranges between a -0.01 to 0.01 difference from the originating line item values, the system does not generate an error or prevent the BP record from moving to the next step.

For more information, watch the following video:

Using Multiple Payments in a Single Shell
(*https://players.brightcove.net/2985902027001/default_default/index.html?videoId=636268
7200112*)

Payment Application BPs, and associated Base Commits and Change Commits, are designed for you. Your Company Administrator can include or remove SOV restrictions when setting up a Base Commit BP or a negative Change Commit (negative change order) BP.

Payment Application Tasks and Performing Multiple Actions-Bulk Action

The **Tasks** node of the Payment Application lets you perform bulk action on Payment Application records, when the system detects multiple payments, or negative change orders.

When you select multiple Payment Application BP records and perform a workflow action (bulk action), the system (based on the "remove SOV restrictions" selection on the Commit BP) updates all the records that you selected, and:

▸ If you select the **Action with Preview** option (in the left Navigator, select **Tasks**, and then click **Actions**), the system displays messages related to payment applications and negative change commits, when applicable.

▸ If you select the **Action without Preview** option (in the left Navigator, select **Tasks**, and then click **Actions**), the system does not display messages related to payment applications and negative change commits, when applicable.

For non-Workflow BP records, when the "Status" is updated through Bulk Edit, the system does not display messages related to payment applications and negative change commits.

When the BP records are progressed from email notifications (when you perform a workflow action through email notifications), the system does not display messages related to payment applications and negative change commits.

Payment Application BP and Multiple Payments

If the **Remove SOV restrictions** option *is selected* in the **Business Process Setup** window (**General** tab), multiple Payment Application type BPs can be configured for a Project/Shell and multiple Payment Application BP records can be routed, at any time, for a commit.

> **Note**: You can go to the Base Commit Setup section for setting information.

Example

First, the user creates the contract record CON-001 and sends the contact to a step that creates Schedule of Values.

Then, the user creates a Payment Application BP record PA-001 and sends the BP record to the next step for approval. At this point the BP record is in progress (in-flight).

Then, the user creates a second Payment Application BP record PA-002 and sends the BP record to the next step for approval.

Then, the user tries to create a second Payment Application BP record for the same Contract CON-001.

An Alerts icon (⚠) is displayed and when the user clicks the icon, information about pending payments and negative change orders is presented.

The system does not block the creation of the second Payment Application BP record PA-002 but informs the user that a Payment Application BP record is pending on the contact.

If the **Remove SOV restrictions** option *is deselected* in the **Business Process Setup** window (**General** tab), only one Payment Application type BP can be configured for a Project/Shell and only one Payment Application BP record can be routed, at any time, for a commit.

After a Payment Application has reached the terminal step, if you open an in progress (in-flight) BP record, the system notifies you that the SOV has been refreshed.

After the system refreshes, the system retrieves the latest information, from the SOV. At run time, whenever you open a draft, or an in-flight, payment record and accept the SOV merge alert the data element (which has the "Do not get latest SOV values when merging" option enabled) will not get refreshed with the latest updated values from SOV.

Before SOV merge, payment grid for data element 'Unit price/gallon' which has 'Do not get latest SOV values when merging' checked.

All the fields populated from the SOV will be updated based on the latest SOV.

All formula fields, in the Payment Application Detail Form, defined using fields from SOV, will be re-evaluated.

Example

There are two Payment Applications P1 and P2. P1 has reached the terminal step. P2 is in progress (in-flight).

User has not yet accepted the task. Upon accepting the task, the system will refresh the SOV and inform user with an alert.

When the user changes to Payment Application BP, an alert icon appears on the window.

Click the Alerts icon (⚠) to see any pending payments, and negative change orders, associated with the selected reference commit. The Alerts icon is available for both Workflow and non-Workflow BPs and might appear after a selection for the contract record is made.

User has accepted the task, and SOV has changed because of another payment. When user open this record, system will perform an SOV merge, and inform user with an alert.

If the user has left P2 open, and P1 has reached terminal status and P1 has impacted the SOV used in P2, when the record P2 is sent to the next step, system will refresh the SOV and throw an alert to the user stating that the SOV has changed.

Payment Application BP and Negative Change Commits

If the **Remove SOV restrictions** option *is selected* in the **Business Process Setup** window of the Base Commit (**General** tab), multiple Payment Application type BPs and Negative Change Commits can be configured for a Project/Shell.

At the time of creating the Payment Application record, upon selecting the reference commit, the system will check for any existing negative change orders for the selected reference commit. The system displays a message if there any negative change orders.

After the record has been created, subsequently, when you open Payment Application record, the system checks to see if there are any pending payments, or negative change orders. If detected, the system displays a message.

Payment Grid which has negative line items

When you open the Payment Application grid, the line items which will be modified because of a pending Negative Change order will have a yellow alert in the Scheduled Value cell. You can click the cell to view the details of the Change Order. The details include the BP name, BP record number, Line Number, and the Amount fields.

Line items from negative Change orders which are in draft status will not be seen in the Payment Application grid, but if a line item has been modified or removed from an existing record which is in draft status, the line item from negative change order can be seen in the Payment Application grid.

The sort order in the window begins by Business Process, then by Record Number, then by Line Number, and finally by Costed Line Number.

Creating negative change orders when the Payment Application is in progress (in-flight)

Example

First, the user creates the contract record CON-001 and sends the contact to a step that creates Schedule of Values.

Then, the user creates a Payment Application BP record PA-001 and sends the BP record to the next step for approval. At this point the BP record is in progress (in-flight).

Then, the user creates a Change Order (Change Commit) BP record to modify the committed line with a line item with a negative amount (a Negative Change Order CC-001) and sends it to the next step for approval.

The creation is successful.

Creating multiple negative change orders

> **Note**: The following is applicable to Change Orders (Change Commits) that point to the Base Commit that does not have any SOV restrictions.

Example

First, the user creates the contract record CON-001 and sends the contact to a step that creates Schedule of Values.

Then, the user creates a Change Order (Change Commit) BP record to modify the committed line with a line item with negative amount (a Negative Change Order CC-001) and sends it to the next step for approval.

Then, the user creates another Negative Change Order for the same contract record CON-001.

The creation is successful.

Enter Payment Application Line Item Information

Line items on the payment application have special functionality. Payment application line items are created automatically from the line items on the associated base commit and any change commits. The columns that appear on the grid (including formula columns) are part of the business process detail form design. If the **Add All SOV Lines** option is enabled for a Payment Application BP with individual commit line items or group by CBS Codes and the grid contains more than 3000 line items, the grid displays a maximum of 3000 line items by default; however, you can adjust the grid to display between 200 and 10000.

To enter line item information on a payment application:

1) In the **Standard** tab of the payment application business process form, click **Add**. This displays all the SOV lines with the selected Base Commit BP record in the upper form.

> **Note:** If the Payment Applications business process has been configured with **Add All SOV Lines** selected, the **Add** button in the Payment Grid will be hidden.

   ▸ Depending upon the design of the BPs, some fields may be auto-populated with data from the base commit and change commit. For a field to auto-populate, the same data element must be used on the base commit, change commit, and payment application. Line items appear from the base commit and any change commits based on the statuses of those business processes, as designed.

   ▸ For classic Payment Applications BP, when the upper form has a DE which is configured as "Auto-populate <sum of all lines>," the system will calculate the sum of all SOV line items. The system will not calculate the sum of all detail line items.

2) Enter details for the line items that must be paid. You can enter values in any editable field on the grid.

3) When you have completed editing the Line Items window, click **Save**.

   ▸ Line items with payments are added to the grid, and the total payment per page is displayed.

   ▸ If a payment must be made in a subsequent step, click **Add** again to re-invoke the SOV lines screen. All lines become visible and any lines that were previously added open in edit mode.

A pen icon appears in the second column to indicate which rows have been modified. When a payment has been added and saved, the pen icon turns green. When the row is still being edited, the pen icon is yellow.

To **Remove** an SOV line that you added to the grid, click the trash-can button on the toolbar.

The columns with decimal values preserve, or maintain, the decimal values specified in the data element of the following business processes and SOV types:

▶ Schedule of Values (SOV) sheet: Payment Application
▶ Payment Application Line Items

As a result, the system will not round the decimal value to two decimals, for the preceding DEs.

Errors

The first column of the payment applications grid is marked by an (x) icon and indicates errors within edited line items. An (x) icon appears in this column when rows have errors. To view errors in the log, click **Check Errors** or click the (x) icon.

Payment Status

The second column of the payment applications grid is marked by a pen icon and indicates payment status. A pen icon appears in this column to indicate which rows have been modified. When a payment has been added and saved, the pen icon turns green. When the row is still being edited, the pen icon is yellow.

To undo line item changes without closing the Line Items window:

In the Line Items window, click the **Cancel** button. Any line item information that you have entered or changed will be cleared, and the fields will revert to their original values.

SOV type Payment Application and SOV line items type Individual commit line items

> **Note:** Although the system supports the inclusion of Pull Down DEs (string or integer) on the payment detail form for use with Auto Population from an SOV Sheet, the Pull Down DE column cannot be added to the SOV Sheet from the SOV Structure. Because of this, the Pull Down DE in a line item cannot auto-populate a value from the SOV Sheet when a classic Payment BP record is created. Auto Population is *only* supported for decimal or current amount DEs.

Update Auto-populate on payment application option is enabled for a Change Order BP

The **Update Auto-populate on payment application** option (located on the **Options** tab) is enabled for a Change Order BP. When you create a Payment Application in your project (**Payment Applications** node), in the **Line Items** tab of the **Create New Payment Applications** window, the following information applies:

a) The **Description** column and the **Spend Category** column are set to auto-populate from the Base Commit and receive the latest updated values from the Change Order that references this SOV line items.

b) The Change Order then routes the record to the terminal status.

c) The **Description** column and the **Spend Category** column are set to auto-populate from the Base Commit and receive the latest updated values from the Change Order that references this SOV line items.

When the auto-populated data elements are updated in referenced SOV line items (in the Change Order) and routed to the approved step, new payment record elements that are set to auto-populate from Base Commit will be updated with the latest values from the Change Order. The new payment record elements will always get the values from the latest Change Order whenever these values are updated in the payment record. Upon routing the payment record to terminal status, it will further update the values in SOV line items.

Add All SOV Lines option is enabled for a Payment Application BP

The **Add All SOV Lines** option (located on the **Options** tab) is enabled for a Payment Application BP with individual commit line items or group by CBS Codes. If the grid on the **Line Items** tab contains more than 3000 line items, the following information applies:

▸ When you need to create a Payment Application BP record with more than 2000 line items or add more than 2000 line items to an SOV, Oracle recommends that you use the Import option to import a CSV or Microsoft Excel file. For more information, see *Importing, Exporting, and Integration*.

▸ When you make changes to line items using the grid, the pagination controls are hidden until all the line items are saved. This applies to both creation and in-flight steps.

▸ Use pagination controls to control the number of lines displayed, which improves system performance.

Pending SOV type Payment Application and SOV line items type Individual commit line items

> **Note:** In the payment record, the values are auto-populated from the Base Commit if the **Update Auto-populate on payment application** option (in **Options** tab) is not enabled for a Change Order BP.

For a pending payment record, in the **Line Items** tab of the **Payment Applications** window:

a) The **Description** column and the **Spend Category** column are set to auto-populate from the Base Commit and receive the latest updated values from the Change Order that references this SOV line items.

b) The Change Order then routes the record to the terminal status.

c) The **Description** column and the **Spend Category** column are set to auto-populate from the Base Commit and receive the latest updated values from the Change Order that references this SOV line items.

When the auto-populated data elements are updated in referenced SOV line items (in the Change Order) and route to approved step, the pending payment (after opening and accepting the task) will receive an SOV alert, if there is an SOV merge. When you click **OK**, the auto-populate data elements (from Base Commit) are updated with the latest Change Order in the grid, along with the latest SOV line items values.

> **Note**: When performing an SOV merge, line-item-level validations will be bypassed. To prevent over-payments, ensure that appropriate rules are configured for the SOV remaining commit balance in the SOV sheet. While the SOV merge keeps data in sync between the SOV and payment lines, the system will not enforce validation rules unless the payment lines are manually edited.

If you open a pending payment that is in an accepted state and navigate to the payment grid, all the existing payment lines will receive the latest values for the auto-populated data elements from the latest Change Order.

View Payment Application Line Item History

When payment application records in view mode, a **Line Item History** button becomes available. This provides a snapshot view of the line item grid as of the last entry.

> **Note**: View mode refers to the non-editable version of the form. For example, for workflow BPs, this is before clicking the **Accept Task** button or after the form has gone through all the workflow steps and is complete. For non-workflow BPs, this is after editing has been completed.

To access line item history:

1) Open a payment application record from the log. Be sure the record is in view mode.
2) Open the **Menu Options** (≡) and select **Line Item History**. The Line Items History window opens, displaying the payment application line item grid, as view-only, with data entered to date.

> **Note**: This option is also available in Classic view, labeled **Line Item History Classic**.

By default, the first 100 line items are displayed on the page. If your payment application BP has more than 100 line items, you can scroll through the other pages, or you can choose to display up to 500 line items on the same page. Displaying more than 100 line items on the page may take several seconds to load.

Export Line Item History

You can export the line item history of a payment application record to a CSV or Microsoft Excel file.

To export payment application line item history information:

1) Open a payment application record from the log. Be sure the record is in view mode.
2) Click the **Line Item History** button.

The Line Item History window opens.

> **Note**: This option is also available in Classic view, labeled **Line Item History Classic**.

3) Click the **Print** button and choose how to export (**Print**, **Export To CSV**, or **Export To Excel)**.

Depending on your browser, the file may download automatically to your computer or prompt you to choose a location to save the file.

> **Notes:**
> - For export to Microsoft Excel, the system currently supports only Euro (EUR) and United States Dollar (USD) currency symbols.
> - If you export data from a business process (BP) record, sheet (such as an Activity Sheet), or log (such as Company Funding Sheet Log) to Excel, be aware that depending on how your negative values are formatted, you might need to configure your columns in Excel to match the correct data type (Number). Otherwise, the columns will not be treated as numeric and will not sum as expected. One supported format includes placing the negative sign between the currency symbol and the amount (for example, $-1,000).

4) Click **Save** and specify the file name and location to which to save a copy of the CSV or Excel file.

Save Payment Application in Draft Mode

You can save a payment application record in draft mode by clicking the **Save** button from the toolbar.

When you open the draft again to send, the system will check to see if there is any modification done by other users. If the system identifies that there is modification to your payment application, you will be asked to accept new changes before proceeding.

Draft Mode and SOV Synchronization

If you create a payment application record and save it in Draft mode, and your SOV changes before you route the draft payment application, an error can result when you attempt to route the record. The error *Line Items must be validated before proceeding* can result if the SOV has changed while your payment application is in Draft mode.

To fix payment application BPs that are affected by changes to the SOV:

1) Open the draft payment application record.

2) Click the **Add** button and click **Detail Line Item** to open the line item entry grid. Line items that are affected by SOV changes are indicated with check marks.

3) Click **OK**. The line items are validated against the SOV.

View the Schedule of Values (SOV) Sheet

The Schedule of Values (SOV) for Payment Application functionality provides a way to assemble information from the Base commits and Change commits (Commit), as well as the payment history, in an SOV sheet. You can open the SOV sheet either from the Schedule of Values (SOV) log, or from within a payment application record (the record must be in an editable mode).

When the base commit record is created and reaches a specified terminal status (for example, Approved), the SOV sheet is automatically created, and line items display as rows. As change commits are created and approved (or other specified status), they are added automatically to the SOV sheet. As payment records are created, these also will affect the SOV.

Data that is displayed on the SOV sheet will depend on the columns that have been added to the SOV structure.

The SOV displays the source information from the base commit and any change commits. The source for each line can be one or more lines from one or more records.

Depending on the design of the associated business processes, the SOV may list each line entry for the base commit and all change commits as separate line items, or it may group entries with the same CBS code and display the total.

When you are working with the SOV sheets, in a Project/Shell, you can enter the item number (**Item #** field) for each of the SOV lines:

▸ The system stores the SOV sheet based on the **Item #** column.

▸ When line items roll up to the SOV sheet from the Base Commit and Change Commit BP records, the system generates the values in the Item # field.

▸ The Item # for each SOV sheet starts with 000010 and this value is incremented by 10. So, if there are 2 lines coming from the Base Commit, the values seen are: 000010 and 000020.

▸ Although the system generates these numbers, you can edit the numbers, which lets you change the order of the SOV lines. To edit the values, double-click the field. Entries to this field must be Numeric. No alphanumeric fields are allowed. Similarly, no other characters such as punctuation marks, non-ISO characters, negative sign, and so on, are permitted. For the summary lines, you cannot enter the dot (period) "." character. Dots are reserved for costed lines.

▸ If you edit an existing value, for example 000030, and enter 27, the value seen in the field will be 000027. The leading zeros are added by the system to align and help sort all the values in the column.

▸ The values entered should be in the range of 000000 to 999999.

▸ The subsequent lines coming from the Change Commit (CC) records (with reference to the above mentioned Base Commit (BC) record) can be seen in the SOV sheet with increments of 10.

If you make any changes to the Item # field, click Apply to save the values in the column and to change the Sort order of the rows. The new sort order is maintained in the database and next time when you open the SOV sheet, the sort order is displayed in the SOV sheet be based on the last saved view.

For Payment Applications SOV, the structure is copied from the line item grid structure of the Payment Application BP.

See *Payment Application Business Processes* (on page 225) for details.

To open the Line Item window of a Payment Application BP form, click Add. The window displays a list of line items from the Base Commits (and any Chance Commits), and the values are populated if auto-population (from Base Commits and Change Commits) has been defined.

To view the associated SOV sheet from within the payment application BP:

1) In the left Navigator, select **Logs**, and then select **Payment Applications**.
2) Select a Payment Application record and click **Open** (or double-click the record). The Payment Application form opens.
3) Select **SOV** from the Menu Options drop-down menu (hamburger icon). The Schedule of Values window opens.

Note: Ensure that the form is not in a view-only mode.

Importing, Exporting, and Integration

You can use CSV import to create Payment Application Business Processes, or to add SOV line items to an existing Business Process.

You can export payment application CSV templates at the log level (for header and line item templates) and at the record level (for line item templates). You can then modify the templates and import them to create records (at the log level) or to add line items to an existing record (at the record level).

An integration interface must be defined to support CSV import. If you find that you cannot perform the file import, see your Administrator. Also, new records can be created and line items added using integration through Web Services. Integration through Web Services must be coordinated with an Oracle Primavera representative.

The columns with decimal values preserve, or maintain, the decimal values specified in the data element of the following business processes and SOV types:

▶ Schedule of Values (SOV) sheet: Payment Application
▶ Payment Application Line Items

As a result, the system will not round the decimal value to two decimals, for the preceding DEs.

Multiple Payment Applications and negative change orders (Change Commits) and CSV import and Web Services

You can create multiple Payment Applications, or negative Change Commit records, against the SOV. You can also create these types of records through CSV import and Web Services.

> **Note**: You can create only one record for each import.

Import New Payment Application Records

You can export a CSV template that includes the upper form and detail form fields as columns. These fields include the header fields from the upper form and the line item SOV fields from the detail form, including the detail line item fields defined in Integration. The Reference Number field is exported as a column for payment application business processes that use individual line items. The Reference number field is not exported as a column for payment application business processes that use Group by CBS.

You can then modify the exported CSV template and import it to create the upper form header and the detail form line items for the new business process.

> **Note:** The system lets you import Payment Application records and line items by way of CSV and REST.

To export a copy of the payment application business process template:

1) Navigate to the payment application business process log.
2) Click the **Actions** menu and select **Export to CSV Template** or **Export to Microsoft Excel Template**.

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

To modify the exported payment application business process template:

1) Open the exported CSV file or Excel file in Microsoft Excel.
2) Enter the business process information into the spreadsheet. Each upper form header record must begin with an "H". Each line item must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Enter data into the required fields, as well as non-required fields as needed.

Important information:

▸ Data for formula-based columns is ignored.
▸ If auto-populated data is provided, the system will import the value, and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
▸ When a data element (DE) is set to auto-populate from a Base Commit, Change Commit, or an SOV, the auto-populated values takes precedence when 0 value is sent for those DEs in CSV, Excel, or REST API. Any value specified in the input request is ignored and the auto-populated values from Base Commit, Change Commit, or SOV will be used.

▸ Any line items with the Amount equal to zero will not be imported.

▸ SOV locking is enforced.

▸ Use to add new business process records only; not to modify existing business processes.

▸ For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.

▸ If the Integration design for the business process includes a Description field for line items, and the associated SOV sheet also contains a Description field, the description from the SOV sheet is imported, and the line item description is not imported.

To import the payment application business process template:

1) Navigate to the payment application business process log.

2) Click the **Actions** menu and hover over **Import**.

3) Select either **Data From CSV File** or **Data From Microsoft Excel File**.

4) Browse to select the file to import, and then click **Next**.

5) Add any attachments to the import.

6) Click **Upload** when finished.

   If there are any import errors, you can open the CSV file to view and correct the error. No records are imported if any rows contain an import error.

Import Payment Application Line Items into a BP

You can export a template that includes the detail form fields as columns for a specific business process. These fields include the SOV data and detail line item fields defined in Integration. The Reference Number field is exported as a column for payment application business processes that use individual line items. The Reference number field is not exported as a column for payment application business processes that use Group by CBS. If multiple tabs are designed for the line items in the business process, the tab columns are included in the export. All the data on the Standard tab is exported; no data on the other tabs is exported.

You can then modify the exported template and import it to create line items for the business process. The exported template contains SOV record information.

> **Note:** The system lets you import Payment Application records and line items by way of CSV and REST.

The Payment Application supports Record, Line Item, and Cost Allocation creation through CSV and Excel integration.

If the payment line items have already been added in the **Standard** tab, importing of the line items through CSV or Excel is not permitted.

When importing Summary Payment line items for Payment Applications BPs, the system uses the values that the user provided for the auto-populate data elements, if the fields were editable originally; otherwise, the system uses the values that are from Base Commit line items or Change Commit line items.

To export the payment application line item template:

If multiple tabs are designed for the line items in the business process, only the data in the Standard tab is exported. For the other tabs, the tab name is included in the exported data for reference, but no data in these tabs is exported.

1) Navigate to the payment application business process log.
2) Click **Create** to create a business process.
3) Select a **Reference Base Commit** for the business process. If you do not select a Reference Base Commit, the exported template will not contain data. Data from all columns in the Reference Base Commit is exported.
4) Open the **Menu Options** ($\equiv$), hover over **Export Line Item Template**, and then select **CSV** or **Microsoft Excel**.

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

To modify the payment application line item template:

1) Open the exported CSV or Excel file in Microsoft Excel. The SOV line items are listed.
2) Enter the line item information into the spreadsheet. Each line must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Enter data into the required fields, as well as non-required fields as needed.

Important information:

▶ Data for formula-based columns is ignored.
▶ If auto-populated data is provided, the system will import the value and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
▶ When a data element (DE) is set to auto-populate from a Base Commit, Change Commit, or an SOV, the auto-populated values takes precedence when 0 value is sent for those DEs in CSV, Excel, or REST API. Any value specified in the input request is ignored and the auto-populated values from Base Commit, Change Commit, or SOV will be used.
▶ Any line items with the Amount equal to zero will not be imported.
▶ SOV locking is enforced
▶ Any line items that you import will replace the existing line items in the business process.
▶ Use to add new lines only, not to modify existing lines
▶ For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.
▶ If the Integration design for the business process includes a Description field for line items, and the associated SOV sheet also contains a Description field, the description from the SOV sheet is imported, and the line item description is not imported.

To import the payment application line item template:

> **Note:** The line items that you import will replace any existing line items.

1) Navigate to the Payment Application business process log.
2) Select a business process from the log.
3) Click the **Actions** menu and hover over **Import**.
4) Select either **Data From CSV File** or **Data From Microsoft Excel File**.
5) Browse to select the file to import, and then click **Next**.
6) Add any attachments to the import.
7) Click **Upload** when finished.

   If there are any import errors, you can open the CSV or Excel file to view and correct the error. No records are imported if any rows contain an import error.

You can add line items with 0 (zero) value in the CSV or Excel template. In such scenario, after you import your CSV or Excel template to the BP record, the BP record will have your added line items with 0 (zero) value.

   Example

   You import a CSV or Excel template that has the following three line items to your BP record:

   1-Amount = 1000

   2-Amount = 0

   3-Amount = 0

   After the import is complete, all three line items will be added to your BP record.

Payment Application Grid Column Total

The following information is related to BP run-time only for the *Payment Applications Business Processes* (Standard tab). For Payment Applications Business Processes, based on the options set for the Total property for the Data Elements (DEs), when you add or modify the grid, the Total row displayed shows the following values:

▶ Blank

   The system displays the value as empty in the Total Column (that particular DE column).

▶ Sum of All Rows

   The system displays the value as "Sum of All Rows" in the Total Column.

▶ Use Formula Definition

   The system displays the value as "Formula Defined" in the Total Column. In other words, the system calculates the formula by using the values from the Total row for the respective DEs.

If the formula was reset to Manual, the system resets the Total to "Sum of All Rows."

The system calculated the Total, for DEs with predefined formula, as follows:

▶ %Complete to Date (uuu_spa_per_comp)
   ▶ Custom formula
      Based on the whether the property is enabled.

▸ System-defined formula

Based on whether the property is enabled.

▸ Amount This period (uuu_spa_amt_tp)

Based on whether the property is enabled. (Either Blank or Sum of All Rows)

> **Note:** With version 23 and later, a Total row on a non-standard tab of a line item grid is not displayed. For version 22 and earlier, the Total row displays a 0.

Payment Application BP Record in Terminal Status

The data elements on the Upper Form that are set to receive the values from the **Sum of All Lines** *will not be re-evaluated* if the Payment Application BP record is in **Terminal** status.

Payment Application BP Record in Non-Terminal Status (In-Flight)

An in-flight Payment Application BP record is a Payment application that is in progress. For example, a Payment that has been in review status and now it is moving to the next step in the workflow, which is approval.

> **Note**: A Payment that is in **Draft** status has been created, but it has not been sent to the next step.

When a **Contracts** BP is configured to allow multiple payments (the **Remove SOV Restriction** field checkbox is selected), the Upper Form data elements that are set to receive the values from the **Sum of All Lines** fields will receive values from the latest SOV, including the existing line item data.

When a **Contracts** BP is configured to not allow multiple payments (the **Remove SOV Restriction** field checkbox is not selected), the Upper Form data elements that are set to receive the values from the **Sum of All Lines** fields will receive values from the SOV at the time of Payment record creation, including the existing line item data.

General Spends Business Processes

General spends business processes let you invoice at the CBS or breakdown level, supporting multiple invoices per SOV. These business processes do not calculate retainage or stored materials.

You can use CSV import to create general spends business processes or to add SOV line items to existing business processes. You can export general spends business process templates at the log level (for header and line item templates, with no data exported) and at the record level (for line item templates with SOV line item data exported). You can modify the templates and import them to create records (at the log level) or to add line items to an existing record (at the record level).

An Integration interface must be defined to support CSV import. If you find that you cannot perform the file import, see your Administrator.

Also, new records can be created and line items added using Integration through Web Services. Integration through Web Services must be coordinated with an Oracle Primavera representative.

Import New General Spends Records

You can export a CSV template that includes the upper form and detail form fields as columns. These fields include the header fields from the upper form and the line item SOV fields from the detail form, including the detail line item fields defined in Integration. These fields are always exported in the template as well:

▸ Reference Number
▸ Description
▸ CBS Code
▸ Breakdown

You can then modify the exported template and import it to create the upper form header information and the detail form line items for the new business process.

To export a copy of the general spends business process template:

1) Navigate to the General Spends business process log.
2) Click the **Actions** menu and select **Export CSV Template** or **Export Microsoft Excel Template**.

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

To modify the exported general spends business process template:

1) Open the CSV or Excel file in Microsoft Excel.
2) Enter the business process information into the spreadsheet. Each upper form header record must begin with an "H". Each line item must begin with a "D". Add a new "D" line for each line item in the business process. For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Ensure that you enter the required values for the Amount, CBS Code, and Short Description columns.

   Notes:

   ▪ Data for formula-based columns is ignored.
   ▪ If auto-populated data is provided, the system will import the value, and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
   ▪ Any line items with the Amount equal to zero will not be imported.
   ▪ Use to add new business process records only, not to modify existing business processes.
   ▪ For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS

code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.

- If the Integration design for the business process includes a Description field for line items, and the associated SOV sheet also contains a Description field, the description from the SOV sheet is imported, and the line item description is not imported.

To import the general spends business process template:

1) Navigate to the General Spends business process log.
2) Click the **Actions** menu and hover over **Import**.
3) Select either **Data From CSV File** or **Data From Microsoft Excel File**.
4) Browse to select the file to import, and then click **Next**.
5) Add any attachments to the import.
6) Click **Upload** when finished.

   If there are any import errors, you can open the CSV file to view and correct the error. No records are imported if any rows contain an import error.

Import General Spends Line Items into a Business Process

You can export a template that includes the detail form fields as columns for a specific business process. These fields include the detail line item columns defined in Integration. These fields are always exported in the template as well:

- Reference Number
- Description
- CBS Code
- Breakdown

You can then modify the amounts on the exported template and import it to create line items for the business process. The exported template contains SOV record information.

To export the general spends line item template:

If multiple tabs are designed for the line items in the business process, only the data in the Standard tab is exported. For the other tabs, the tab name is included in the exported data for reference, but no data in these tabs is exported. Data from all columns in the Reference Base Commit is exported.

1) Navigate to the General Spends business process log.
2) Click **Create** to create a business process.
3) Select a **Reference Base Commit** for the business process. If you do not select a Reference Base Commit, the exported template will not contain data. Data from all columns in the Reference Base Commit is exported.
4) Open the **Menu Options** (≡), hover over **Export Line Item Template**, and then select **CSV** or **Microsoft Excel**.

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

To modify the general spends line item template:

1) Open the CSV or Excel file in Microsoft Excel. The SOV line item data is shown.

2) Enter the line item information into the spreadsheet. Each line item must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.

3) Enter required values for the Amount, CBS Code, and Short Description columns.

> **Notes**:
>
> - Data for formula-based columns is ignored.
>
> - If auto-populated data is provided, the system will import the value, and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
>
> - Any line items with the Amount equal to zero will not be imported.
>
> - Use the import to add new line items only, not to modify existing line items.
>
> - Any line items you import will be added after any existing line items.
>
> - For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.
>
> - If the Integration design for the business process includes a Description field for line items, and the associated SOV sheet also contains a Description field, the description from the SOV sheet is imported, and the line item description is not imported.

To import the general spends line item template:

1) Navigate to the General Spends business process log.

2) Open a business process from the log.

3) Click the **Actions** menu and hover over **Import**.

4) Select either **Data From CSV File** or **Data From Microsoft Excel File**.

5) Browse to select the file to import, and then click **Next**.

6) Add any attachments to the import.

7) Click **Upload** when finished.

   If there are any import errors, you can open the CSV or Excel file to view and correct the error. No records are imported if any rows contain an import error.

Lump Sum and Unit Cost

The Cost Line Item Type (uuu_cost_li_type) on the detail form is populated with Lump Sum or Unit Cost based on the selection of the option that you have made at the time of adding line items. When you click Add and select either Lump Sum, or Unit Cost, Line Items window opens. The Line Items window has two sections: Upper form (Detail form that follows the Detail form design) and lower grid (fixed by system). The following explains all the fields in detail:

Line Item window toolbar

▸ Save
▸ Spelling
▸ Attach
▸ Upload Images
▸ Delete
▸ Line Item
▸ Close window

Line Item window fields

Click **Add** and then select **Lump Sum** (No added cost) - Upper form (General)

▸ Short Description
▸ Cost Line Item Type
▸ Amount
▸ Role Effective Date
▸ Description
▸ Spend Category
▸ Work Package
▸ Item Quantity
▸ Unit of Measure
▸ Item Unit Cost
▸ Costed Amount

Click **Add** and then select **Lump Sum** (Added cost) - Upper form (General)

▸ Short Description
▸ Cost Line Item Type
▸ Amount
▸ Description
▸ Costed Quantity
▸ Not Costed Quantity
▸ Spend Category
▸ Work Package
▸ Item Quantity
▸ Unit of Measure
▸ Item Unit Cost
▸ Costed Amount
▸ Not Costed Amount

Click **Add** and then select **Unit Cost** (No added cost) - Upper form (General)

- ▶ Short Description
- ▶ Cost Line Item Type
- ▶ Amount
- ▶ Role Effective Date
- ▶ Description
- ▶ Costed Quantity
- ▶ Not Costed Quantity
- ▶ Spend Category
- ▶ Work Package
- ▶ Item Quantity
- ▶ Unit of Measure
- ▶ Item Unit Cost
- ▶ Costed Amount
- ▶ Not Costed Amount

Click **Add** and then select **Unit Cost** (Added cost) - Upper form (General)

- ▶ Short Description
- ▶ Cost Line Item Type
- ▶ Amount
- ▶ Role Effective Date
- ▶ Description
- ▶ Costed Quantity
- ▶ Not Costed Quantity
- ▶ Spend Category
- ▶ Work Package
- ▶ Item Quantity
- ▶ Unit of Measure
- ▶ Item Unit Cost
- ▶ Costed Amount
- ▶ Not Costed Amount

Toolbar - Upper form (lower block)

- ▶ Add Cost

  This option lets you add cost distribution lines to the grid, within a line item. You can edit the CBS/CBS code by double-clicking the cell. The Add Cost option is available when the Allow Cost Breakdown is enabled. Add Cost will be disabled when the record reaches terminal status.

- ▶ Remove Cost

This option allows lets you remove cost distribution lines from the grid, within a line item. You can select multiple lines and remove them collectively. The Remove Cost option is available when the Allow Cost Breakdown is enabled. Remove Cost will be disabled when the record reaches terminal status.

> **Note:** When you remove a line item from the grid, it will impact the calculations in the General section. If the line item is coming from an SOV sheet, then deletion is not permitted on those lines.

▶ Copy Cost

This option allows lets you select/copy one costed line item and create a new costed line item using the selected/copied costed line item. You cannot select more than one costed line item for copying. The Copy Cost option is available when the Allow Cost Breakdown is enabled. Copy Cost will be disabled when the record reaches terminal status.

▶ Add Remaining

  ▸ If you select Lump Sum as the cost line item type, you can use the Add Remaining option for adding Not Costed Amount line, and the Amount field is auto-populated based on Not Costed Amount. If the Costed Amount (total amount from all costed lines), on the General section, is equal to the Line Item Amount, then the Add Remaining option will be disabled.

  ▸ If you select Unit Cost as the cost line item type, you can use the Add Remaining option for adding Not Costed Quantity line, and the Quantity field is auto-populated based on Not Costed Quantity. If the Costed Quantity (total quantity from all costed lines), on the General section, is equal to the Line Item Quantity, then the Add Remaining option will be disabled.

  ▸ The Add Remaining option is available when the Allow Cost Breakdown is enabled. Add Remaining will be disabled when the record reaches terminal status.

Fields - Upper form (lower block)

You can make change within the editable or required cells of the following columns:

▶ Cost Code

You can click the cell and select a Cost Code from a Cost Sheet of the same Shell.

▶ Code Name

This is a read-only field. The value is auto-populated by the system according to the Cost Code selection.

▶ Short Description

The value is auto-populated from the line item Short Description field. You can modify the default value.

▶ Quantity

If the type of the line item is Unit Cost, you can edit the value of this field and enter the costed quantity. If the type of the line item is Lump Sum, this field will not display.

▶ Unit Cost

If the type of the line item is Unit Cost, the value of this field is read-only. The value is auto-populated according to the unit price value that you entered in the upper form (General). If no value was entered in the upper form (General), the default value of this field will be zero. If the type of the line item is Lump Sum, this field will not display.

▶ Amount

If the type of the line item is Unit Cost, this field is calculated by the system (Quantity * Unit Cost). If the type of the line item is Lump Sum, you can edit the value of this field and enter the costed amount.

Commit Line Item Picker window

You can select any summary line item from the Commit Line Item picker

The following explains the fields in the Commit Line Item Picker window:

▶ Ref

This column contains the reference number of the Change Commits Detail Line Item. The summary row displays the reference number of the Detail Line Item, and the child row displays the reference number of the Cost Distribution Line Item (costed line item) from the parent line. For example, 1.1 is the costed line item for line item 1.

▶ Cost Code

This column contains the CBS Code associated with each distribution line. For summary rows (parent), the value for this column is blank.

▶ Code Name

This column contains the CBS Code associated with the code. For summary rows, the value for this column is blank.

▶ Cost Type

This column contains the Cost Line Item type for the Summary rows. For child rows, the value for this column is blank.

▶ Description

This column contains the contents of the Short Description (short_desc) field in the Detail Line item. For summary rows (parent), this column contains the Short Description of the Line Item. For distribution rows, this column shows the Short Description of each costed line item, and based on the user input, the value might, or might not be, the same as the Short Description of the Line Item.

Cost Distribution Grid log columns

▶ Cost Code

This field is both editable and required. You can click the cell and select a Cost Code from a Cost Sheet of the same Shell. Similar to the Line Items, you can enter a Cost Code and the same Cost Code will be available to select. You cannot change the Cost Code for existing Line Items coming from SOV.

▶ Code Name

This field is read-only, and the value is auto-populated by the system according to the Cost Code that you have selected.

▶ Short Description

This field is editable, and the default value is auto-populated according to the Short Description (short_desc) field.

▶ Current Quantity

This field is read-only and the value is auto-populated by the system if you have selected Modify Reference Commit option, and the Cost Line Item type (uuu_cost_li_type) of the selected Commit Line Item is Unit Cost.

> **Note**: If the conditions are not met, the system auto-populates the value as "Quantity," from the source commit distribution line item.

▶ Current Scheduled Value

This field is read-only, and the value is auto-populated by the system (regardless of the Cost Line Item type (uuu_cost_li_type). The value of this field can be updated when modifying an existing line is from an SOV sheet.

▶ Change Quantity

This field is read-only if the Cost Line Item type (uuu_cost_li_type) of the selected Commit Line Item is Lump Sum. If the Cost Line Item type (uuu_cost_li_type) of the selected Commit Line Item is Unit Cost, you can edit this field and enter the costed quantity.

▶ Change Amount

If the Cost Line Item type (uuu_cost_li_type) of the selected Commit Line Item is Lump Sum, you can edit this field and enter the costed amount. If the Cost Line Item type (uuu_cost_li_type) of the selected Commit Line Item is Unit Cost, the value of this field is calculated by the system as: Change Quantity * Unit Cost.

▶ New Schedule Value

This field is read-only, and the value is auto-populated by the system when modifying an existing line is from an SOV sheet. The value of this field is calculated by the system as: Current Scheduled Value + Change Amount.

Change Commit Business Processes

Change commit business processes let you change the value of a base commit and also update the SOV created by the contract. This business process is also known as a change order.

When multiple Base Commit BPs with Payment Applications and corresponding SOVs are included in a project/shell, you can create multiple Change Commit records that update corresponding payment application SOVs.

You can use CSV import to create change commit business processes or to add SOV line items for an existing business process. You can export change commit business process templates at the log level (for header and line item templates with no data exported) and at the record level (for line item templates with SOV data exported). You can then modify the templates and import them to create records (at the log level) or to add line items to an existing record (at the record level).

An **Integration** interface must be defined to support CSV import. If you cannot import the file, contact your Administrator.

Also, new records can be created and line items added using Integration through Web Services. Integration through Web Services must be coordinated with Oracle Primavera Unifier Essentials Consulting Services.

Import New Change Commit Records

You can export a CSV template that includes the upper form and detail form fields as columns. These fields include the header fields from the upper form and the line item SOV fields from the detail form, including the detail line item fields defined in Integration.

You can modify the exported CSV template and import it to create the upper form header information and the detail line items for the new business process.

To export a copy of the change commit business process template:

1) Navigate to the change commit business process log.
2) Click the **Actions** menu and select **Export CSV Template** or **Export Microsoft Excel Template**.

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

To modify the exported change commit business process template:

1) Open the exported CSV or Excel file in Microsoft Excel.
2) Enter the business process information into the spreadsheet. Each upper form header record must begin with an "H". Each line item must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Enter data into the required fields, as well as non-required fields as needed.

> **Notes:**
> - Data for formula-based columns is ignored.
> - If auto-populated data is provided, the system will import the value, and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
> - Any line items with the Amount equal to zero will not be imported.
> - Use to add new business process records only; not to modify existing business processes.
> - All data created through the CSV import is rolled up to the cost sheet
> - For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.

To import the change commit business process template:

1) Navigate to the change commit business process log.
2) Click the **Actions** menu and hover over **Import**.
3) Select either **Data From CSV File** or **Data From Microsoft Excel File**.
4) Browse to select the file to import, and then click **Next**.
5) Add any attachments to the import.
6) Click **Upload** when finished.

   If there are any import errors, you can open the CSV file to view and correct the error. No records are imported if any rows contain an import error.

Import Change Commit Line Items Into a BP

You can export a template that includes the detail form fields as columns for a specific business process. These fields include the detail form line item fields defined in Integration.

You can then modify the exported template and import it to create line items for the business process. The exported template contains SOV record information.

To export the change commit line item template:

If multiple tabs are designed for the line items in the business process, only the data in the Standard tab is exported. For the other tabs, the tab name is included in the exported data for reference, but no data in these tabs is exported. Data from all columns in the Reference Base Commit is exported.

1) Navigate to the change commit business process log.
2) Click **Create** to create a business process.
3) Select a **Reference Base Commit** for the business process. If you do not select a Reference Base Commit, the exported template will not contain data. Data from all columns in the Reference Base Commit is exported.
4) Open the **Menu Options** (≡), hover over **Export Line Item Template**, and then select **CSV** or **Microsoft Excel**.

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

To modify the change commit line item template:

1) Open the exported CSV or Excel file in Microsoft Excel. The SOV line items are listed.
2) Enter the line item information into the spreadsheet. Each line must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Enter data into the required fields, as well as non-required fields as needed.

> **Notes:**
> - Data for formula-based columns is ignored.
> - If auto-populated data is provided, the system will import the value, and will not override the imported values except for fields auto-populated by Base Commit, Change Commit, or from SOV.
> - Any line items with the Amount equal to zero will not be imported.
> - Ensure that you are importing the records you want to import. Any line

items that you import will be added after any existing line items.

- Use to add new lines only, not to modify existing lines
- All data created through the CSV import is rolled up to the cost sheet
- For data to import correctly, you might have to change some of the cells in the CSV file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.

To import the change commit line item template:

1) Navigate to the change commit business process log.
2) Open a business process from the log.
3) Click the **Actions** menu and hover over **Import**.
4) Select either **Data From CSV File** or **Data From Microsoft Excel File**.
5) Browse to select the file to import, and then click **Next**.
6) Add any attachments to the import.
7) Click **Upload** when finished.

   If there are any import errors, you can open the CSV or Excel file to view and correct the error. No records are imported if any rows contain an import error.

Totaling Cost Breakdown Values

This section explains the following topics

> **Note:** The following applies when the "**Total the Cost Breakdown values to the line item**" option is checked in the form.

▸ Totaling Cost Breakdown to the Line Item
   Totaling cost breakdown values to the line item
▸ Totaling Line Item in Payment Application
   Totaling the line in the Payment grid of Payment Application
▸ Line Item and Sum of Costed Line
   When the line item field value does not match the sum of costed line values
▸ Summary Line item
▸ Summary Row Totals
   ▸ Summary total
   ▸ Line item total

> **Note:** If the sum of costed lines ranges between a -0.01 to 0.01 difference from the originating line item values, the system does not

generate an error or prevent the BP record from moving to the next step.

Totaling Cost Breakdown to the Line Item

The totaling cost breakdown to the line item can be done for:

▶ Line items with editable numeric data element columns (line item and costed lines)
▶ Line items with editable numeric data element columns (line item and costed lines)
▶ Line items with cells that are based on formula
▶ Line items with cells that are percentages

The following explains each option.

Line items with editable numeric data element columns (line item and costed lines)

You can see the sum of all the costed line item values after entering the pertinent values in the editable fields (line item and costed lines). That is, when you enter values in the costed line items, the system sums up those values and displays the resulting value in the corresponding cell of the line item.

Example

Contracts with Cost Break down

Enter the costed line item information in the "Other Amount this Period" field. After you click elsewhere, the system displays the sum total of the costed line item values in the "Other Amount this Period" field of the line item.

Line items with editable numeric data element columns (line item and costed lines)

If the fields are read-only, there are not summations.

Line items with cells that are based on formula

When the line item cell has a formula definition, the sum (roll up) for the cell in the line item is not generated from the costed line items. The calculation for this cell is based on the line item values.

Example

"Completed and Stored to Date" is a formula field = Total Previous Payments <uuu_spa_prev_amt> + Requested this Period <spz_total_tp> + Stored Materials Amount <uuu_spa_mat_stored>. As a result, the cell value for "Completed and Stored to Date" in the line item = Total Previous Payments <uuu_spa_prev_amt> + Requested this Period <spz_total_tp> + Stored Materials Amount <uuu_spa_mat_stored>.

During runtime, the system Data Element (DE) uuu_spa_prev_amt is calculated by the system as the sum of following (from SOV):

▶ The uuu_spa_prev_amt, and
▶ The data element selected in the "Total Previous Payments = Total Previous Payments + ..." option

By default, the "Amount" field from the system detail form is selected by default in this option and the formula for uuu_spa_prev_amt equals the sum of:

▶ The uuu_spa_prev_amt from SOV, and

▶ The amount from the SOV.

If the user selects some other option, for example, the data element "Amount Requested this Period," the formula for this field would become:

▶ The uuu_spa_prev_amt from SOV, and

▶ The amount Requested This Period from SOV

Line items with cells that are percentages

System-defined uuu fields and user-defined custom formula fields, which are treated as percentages field and set as formulas, do not sum up the values from the costed lines to the line item.

Totaling Line Item in Payment Application

The Total row, at the bottom of grid, displays the total for payment lines (costed line items) when the values are:

▶ Manually entered

▶ Formula based

▶ Percentages

In the total Row, all the numeric columns display the total of the Summary Line items.

> **Note:** With version 23 and later, a Total row on a non-standard tab of a line item grid is not displayed. For version 22 and earlier, the Total row displays a 0.

Line Item and Sum of Costed Line

When the line item field value does not match the sum of costed line values:

For fields that are editable, the line item cell displays a small triangle to indicate that the totals do not match.

> **Note:** The small triangle is displayed based on the selection that has been made in the Upper Form option "Costed line item total must be equal to the line item total". If the checkbox for **Costed line item total must be equal to the line item total** is *unchecked*, the red triangle does not display. If the checkbox for **Costed line item total must be equal to the line item total** is *checked*, the Data Element is configured to show the **Summary Total** as **Sum of All Rows** (there is a total mismatch), and the red triangle is displayed.

When the user clicks the small triangle, the system displays an information text and informs the user about the differences. This is applicable only for the line item.

> **Note:** The alert is not displayed for `uuu_spa_per_comp` field because the field values of costed lines and summary lines will always have a discrepancy.

Summary Line Item

The (Summary) Line item row is gray when the line is not editable.

The (Summary) Line item row is editable if the row is displayed:

▸ In bold font.
▸ With thick borders.

To be able to modify Line Items, you must select the "**Allow Modification of Line Items** option in the **Creation** step.

You can define whether or not you want the value of the Data Element (DE) `uuu_spa_per_comp` (from summary row) to apply to all costed lines automatically. This lets you avoid filling each costed line value manually and have a better user experience.

If the **Allow viewing of Costed line items** and **Allow Modification of line item** options are selected (checked) in the Upper Form of a Payment Application type BP (which references a Base Commit of SOV Type), the runtime SPA grid provides an **Apply line item value of <label of DE uuu_spa_per_comp> to costed lines** checkbox (in the upper-right corner of the grid) that lets you apply the line item value to costed lines.

When you select the **Apply line item value of <label of DE uuu_spa_per_comp> to costed lines** checkbox, the system copies the value of the data element uuu_spa_per_comp (from the summary lines) into the corresponding costed lines. The subsequent impact on fields uuu_spa_amt_tp / uuu_spa_qty_tp in the costed lines is similar to just as if you made a manual edit of uuu_spa_per_comp in the costed lines to trigger the update of these fields.

To proceed, select the **Apply line item value of <label of DE uuu_spa_per_comp> to costed lines** option (at the upper-right corner of the detail form). This selection impacts only those lines that are edited after checking the box, and the existing, or edited, lines will remain as they were.

If the **Apply line item value of Percentage Complete to Date to costed Lines** option is selected, the system performs all the form-level validations, for the Costed line items, after saving the line items (clicking **Save**).

The following scenarios explain the behavior, when you edit a line item, or costed rows, after checking the box.

Scenario 1

Scenario	Description
Scenario 1-a	The `uuu_spa_per_comp` is editable and the **Apply line item value of 'Percentage Complete to Date' to costed lines** options is selected (checked) when the user enters a value for field `uuu_spa_per_com` in the summary row: a) The corresponding `uuu_spa_amt_tp` or `uuu_spa_qty_tp` (depending on whether it is a *Lump sum* or *Unit Cost* type line item) in the summary row should get back-calculated as per the new value of uuu_spa_per_com. b) All child costed lines should get auto-populated with the same value as the summary cell for uuu_spa_per_com. c) The fields `uuu_spa_amt_tp` or `uuu_spa_qty_tp` for all costed lines get back-calculated according to the newly populated value of `uuu_spa_per_com`. In this case, the system stops at back-calculating the costed row values for `uuu_spa_amt_tp` or `uuu_spa_qty_tp` and does not roll the values into the line item value again (even if the option **Total the Cost Breakdown values to the line item** is checked). Here, if the back-calculated values of `uuu_spa_amt_tp` or `uuu_spa_qty_tp` total to a penny off from the line item cell value, the system adjusts that penny in the last costed line.

Scenario	Description
Scenario 1-b	The `uuu_spa_per_comp` is editable and the **Apply line item value of 'Percentage Complete to Date' to costed lines** options is selected (checked) when the user enters a value in the summary cell for fields `uuu_spa_amt_tp` or `uuu_spa_qty_tp`, depending on whether it is a *Lump sum* or *Unit Cost* type line item: a) The summary row field `uuu_spa_per_com` is calculated by the system. b) At the same time, all child costed lines get auto-populated with the same value as the summary cell for `uuu_spa_per_com`. c) The fields `uuu_spa_amt_tp` or `uuu_spa_qty_tp` (depending on whether it is a *Lump sum* or *Unit Cost* type line item) for all costed lines get back-calculated according to the newly populated value of `uuu_spa_per_com`. In this case, the system stops at back-calculating the costed row values for `uuu_spa_amt_tp` or `uuu_spa_qty_tp` and does not roll the values into the line item value again (even if the option **Total the Cost Breakdown values to the line item** is checked). Here, if the back-calculated values of `uuu_spa_amt_tp` or `uuu_spa_qty_tp` total to a penny off from the line item cell value, the system adjusts that penny in the last costed line.

Scenario	Description
Scenario 1-c	The `uuu_spa_per_comp` is editable and the **Apply line item value of 'Percentage Complete to Date' to costed lines** options is selected (checked) when the user enters a value in the summary cell for a field that impacts calculation of `uuu_spa_per_comp` (such as `uuu_spa_mat_stored` or `uuu_spa_other_tp`): a) The summary row field `uuu_spa_per_com` get calculated by the system. b) At the same time, all child costed lines get auto-populated with the same value as the summary cell for `uuu_spa_per_com`. c) The fields `uuu_spa_amt_tp` or `uuu_spa_qty_tp` (depending on whether it is a *Lump sum* or *Unit Cost* type line item) for all costed lines get back-calculated according to the newly populated value of `uuu_spa_per_com`. In this case, the system stops at back-calculating the costed row values for `uuu_spa_amt_tp` or `uuu_spa_qty_tp` and does not roll the values into the line item value again (even if the option **Total the Cost Breakdown values to the line item** is checked). Here, if the back-calculated values of `uuu_spa_amt_tp` or `uuu_spa_qty_tp` total to a penny off from the line item cell value, the system adjusts that penny in the last costed line.

Scenario 2

In this scenario, the uuu_spa_per_comp field is read-only, but any of the other fields that impact its calculation (`uuu_spa_amt_tp`, `uuu_spa_qty_tp`, `uuu_spa_mat_stored`, or `uuu_spa_other_tp`) are editable, and the option **Apply line item value of <label of DE uuu_spa_per_com> to costed lines** is checked. In such scenario:

Scenario	Description
Scenario 2-a	If the user modifies the summary cell value for any of the editable fields, the behavior will be similar to Scenario 1-b and Scenario 1-c, above.

Scenario	Description
Scenario 2-b	If the user modifies the costed row value for any of the editable fields (existing functionality), the corresponding costed row value of `uuu_spa_per_com` gets calculated by system. This does not result in roll up, or impact, the summary cell value of `uuu_spa_per_com`, even if the option **Total the Cost Breakdown values to the line item** is checked.
	You can select (check) the **Apply line item value of <label of DE uuu_spa_per_com> to costed lines** option and the proceed to deselect (uncheck) it. Deselecting the option does not revert any of the changes that you had made when the option was selected, but it impacts the future operation and the subsequent summary value changes for uuu_spa_per_com will not automatically copy into the costed lines.
	If you make manual changes (after deselecting the option), select the option again:
	▶ The manual changes that you had made remain as they were.
	▶ The roll-down behavior from summary to costed rows occurs for all the subsequent summary row changes.
	If you select (check) the **Apply line item value of <label of DE uuu_spa_per_com> to costed lines** option, the system lets you only push the values down from the line items to the costed row (`for uuu_spa_per_com`).
	Even if the option **Total the Cost Breakdown values to the line item** is enabled, the system does not allow roll-up from the costed rows to line item for the following Data Elements:
	▶ `uuu_spa_per_com`
	▶ `uuu_spa_amt_tp`
	▶ `uuu_spa_qty_tp`

Summary Row Totals

The costed lines can be defined to roll up to their summary line items as "Sum of all rows" by using the form option "Total the Cost Breakdown values to the line item" (for a Payment Application BP which has reference to a Contract type BP).

You can define:

▶ The fields from costed lines sum up to the summary line item.

▶ The fields from costed lines do no sum up to the summary line item.

The values in summary line item fields populate as defined (Manual, Formula, or Auto-populate).

The following subsections provide details about when the option **Total the Cost Breakdown values to the line item** *is checked* (Summary Row Totals) or *is not checked* (Line Item Total).

Summary Total

During runtime, if the upper form option "Total the Cost Breakdown values to the line item" *is checked*, then the Summary row values in Payment Applications grid displays per "Summary Total' option, selected by the user in detail form. The following table "Summary Total" provides details:

Costed Row Data Element Settings in Data Entry / Access	Costed Row Data Element Settings in Summary Total	Summary Row Value
Manual / Editable/Editable Required	As Defined	Editable. The value shows as 0 or $0.00, per Data Element (DE) Data Definition (DD). The user can double-click into the cell and enter any value as per the DE Data Definition**. If the user deletes the value in the cell, it reverts to 0 (zero) or $0.00, whichever applicable.
Manual / Editable/Editable Required	Sum of All Rows	Editable. The value shows sum of all costed lines. The user can double-click into the cell and enter any other value, per the DE Data Definition**. If the user deletes the value in the cell, it reverts to 0 (zero) or

Costed Row Data Element Settings in Data Entry / Access	Costed Row Data Element Settings in Summary Total	Summary Row Value
		$0.00, whichever applicable.
Manual / Read-Only	As Defined	Read-Only. Value: 0 (zero) or $0.00
Manual / Read-Only	Sum of All Rows	Read-Only. Value: Sum of all costed lines
Formula (Always Read-Only)	As Defined	Read-Only. Value: Calculated according to the formula defined for the DE. **Note**: If the DE is set as Formula, the option **As Defined** is selected for the **Summary Total**.
Formula (Always Read-Only)	Sum of All Rows	Read-Only. Value: Sum of all costed lines
Auto-populate / Editable/Editable Required	As Defined	Editable. The value shows the auto-populated value, per definition. The user can double-click into the cell and enter any value as per the DE Data Definition**. If the user deletes the value in the cell, it reverts to 0 (zero) or $0.00, whichever applicable.
Auto-populate / Editable/Editable Required	Sum of All Rows	Editable. The value shows sum of all costed lines. The user can double-click into the cell and enter any value as per the DE Data Definition**. If the user deletes the value in the cell, it reverts to 0 (zero) or $0.00, whichever applicable.
Auto-populate / Read-Only	As Defined	Read-Only. Value: The auto-populated value, per definition

Costed Row Data Element Settings in Data Entry / Access	Costed Row Data Element Settings in Summary Total	Summary Row Value
Auto-populate / Read-Only	Sum of All Rows	Read-Only. Value: Sum of all costed lines

** If there is a total mismatch, a red triangle symbol appears in the cell and when you click the red triangle symbol the cell displays the difference.

During runtime, the following DEs (summary row total value fields) are exception to the above settings:

▶ `scheduled_value`

▶ `uuu_spa_prev_amt`

▶ `uuu_spa_per_comp`

The properties for the fields above are set as "Manual," but the system calculates the value of these fields as a system-calculated hard-coded formula.

▶ The summary cells for these three fields are calculated per system-defined hard-coded formula for each line.
▶ The fields are Read-Only, Editable, or Required per setting.
  ▶ If Editable, or Required, you can double-click into the cell and enter any other value, per the DE Data Definition.
  ▶ If there is a total mismatch, a red triangle symbol appears in the cell; when you click the red triangle symbol, the cell displays the difference.

Line Item Total

If the "Total the Cost Breakdown values to the line item" option is unchecked, even if the "Summary Total" option has been defined in detail form, the costed lines do not roll up to the summary rows in any of the forms. The following table lists additional scenarios:

Item	Checkbox "Total the Cost Breakdown values in the line item" in the BP upper form	Checkbox "Costed Amount must be equal to the line item total" in the BP upper form	Summary Total definition for a numeric Data Element on the BP detail form	Expected behavior of corresponding summary cell during runtime
1	Unchecked	Unchecked	As Defined	Blank, editable/require

Item	Checkbox "Total the Cost Breakdown values in the line item" in the BP upper form	Checkbox "Costed Amount must be equal to the line item total" in the BP upper form	Summary Total definition for a numeric Data Element on the BP detail form	Expected behavior of corresponding summary cell during runtime
				d/read-only, per definition.
2	Unchecked	Unchecked	Sum of All Rows	Blank, editable/required/read-only, per definition.
3	Unchecked	Checked	As Defined	Blank, editable/required/read-only, per definition.
4	Unchecked	Checked	Sum of All Rows	Blank, editable/required/read-only, per definition.
5	Checked	Unchecked	As Defined	If the DE is set to "Manual," the summary cell is 0 (zero). The field is editable/required/read-only, per definition. If the field is editable/required, you can change the value.
5	Checked	Unchecked	As Defined	If the DE is set to "Formula," the summary cell is calculated per formula. The field is read-only.

Item	Checkbox "Total the Cost Breakdown values in the line item" in the BP upper form	Checkbox "Costed Amount must be equal to the line item total" in the BP upper form	Summary Total definition for a numeric Data Element on the BP detail form	Expected behavior of corresponding summary cell during runtime
5	Checked	Unchecked	As Defined	If the DE is set to "Auto-populate," the summary cell shows the auto-populated value. The field is editable/required/read-only, per definition. If the field is editable/required, you can change the value.
6	Checked	Unchecked	Sum of All Rows	The summary cell is populated by the system as sum of all rows. This field is editable/required/read-only, per definition.
7	Checked	Checked	As Defined	If the DE is set to "Manual," the summary cell is 0 (zero). The field is editable/required/read-only, per definition. If the field is editable/required, you can change the value. **Note:** This behavior overrides the

Item	Checkbox "Total the Cost Breakdown values in the line item" in the BP upper form	Checkbox "Costed Amount must be equal to the line item total" in the BP upper form	Summary Total definition for a numeric Data Element on the BP detail form	Expected behavior of corresponding summary cell during runtime
				"Costed Amount must be equal to the line item total" checkbox and must be allowed.
7	Checked	Checked	As Defined	If the DE is set to "Formula," the summary cell is calculated per formula. The field is read-only. **Note:** This behavior overrides the "Costed Amount must be equal to the line item total" checkbox and must be allowed.
7	Checked	Checked	As Defined	If the DE is set to "Auto-populate," the summary cell shows the auto-populated value. The field is editable/required/read-only, per definition. If the field is editable/required, you can change the value. **Note:** This behavior overrides the

Item	Checkbox "Total the Cost Breakdown values in the line item" in the BP upper form	Checkbox "Costed Amount must be equal to the line item total" in the BP upper form	Summary Total definition for a numeric Data Element on the BP detail form	Expected behavior of corresponding summary cell during runtime
				"Costed Amount must be equal to the line item total" checkbox and must be allowed.
8	Checked	Checked	Sum of All Rows	The summary cell is populated by the system as sum of all rows. The field is editable/required/read-only, per definition. The system applies the "Costed Amount must be equal to the line item total" checkbox and prevents if you manually change the value to something other than sum of all rows.

Request for Bid (RFB) Business Processes

The Request for Bid (RFB) feature allows companies to invite bids from vendors and suppliers.

> **Note:** The system lets your company designate only one **Vendors** business process as the RFB master vendor list (master vendor BP/vendor master BP).

The bid invitation can be addressed to a specific set of vendors or can be opened to the public. The bidders are provided with a simple Unifier Essentials interface that does not require special training to use. Bidders receive email notifying them that they have received a bid invitation so they can log on to the system and submit their bids.

In addition to receiving emails for Personal Tasks, CC'd Tasks, Overdue Personal Tasks, Record Workflow Complete, and Decline Tasks, RFB also includes email subjects for Login Information, Bid Invitation, and Due Date Change.

The bidder portal enables the bidder to use the Announcement icon ( ) to view announcements by the owner company. The Bidder Business Process log (Bidder BP log) enables the bidder to view all requests, their titles, due date, and status.

The Bidder BP log has the following options:

- **View:**
  - Active
  - All
- **Refresh:** To refresh the log items.
- **Print:** To print the log contents.
- **Search:**
  - Status with values of All, Open and Closed
  - Search parameters based on Bidder log setting
- **Find on Page:** To find content on the visible page.
- **Help:** To view help options.

The *gear menu* ( ), in front of each record, is context sensitive and provides the following conditions and corresponding options:

Condition	Options
Bid has been received and no submissions have been made	Open - Opens the requestor's form Create - Will open the bid form
Bid has been submitted	Open - Opens the requestor's form View Submission Withdraw Submission - Confirmation asking user to confirm action. After a successful withdrawal, an alert will be seen **Note:** After a bid has been withdrawn, options seen will be: Open

Condition	Options
Bid has been closed	View Submission - This will open the submitted bid
	Double-clicking the record will open the submitted bid form.

The preview pane, on the right side, contains:

▶ The form content, based on the current state of the record.
  ▸ If the bid is active (just received a RFB or submitted a bid), the requestor form is displayed.
  ▸ If the bid is closed, the content of the submitted bid is displayed.
▶ The Attachments tab is displayed.

The Mailbox provides a preview of a selected email, in the right pane. The Mailbox has an Inbox and a Sent Items section. The Inbox lets bidders view all the mails received from Unifier Essentials.

When you send an email to a bidder, the system includes information in the subject line that helps the recipient identify that the message is for an RFB and it lists the RFB Record Number. The body of the message includes additional information, such as the Record Number and Title, and indicates the type of change made to the RFB.

When you receive an email from a bidder, the system includes information in the subject line that helps you identify that the message is for an RFB, it lists the RFB Record Number, and it indicates that the recipient received the original RFB request. The body of the message includes additional information, such as the Project Name and Project Number, critical bidder information such as the name of the company, first and last name of the contact, and the contact's email address, and a text field in which the bidder has entered additional information.

The RFB type BP supports the **Grid** feature when the RFB design includes the subtype: **Line Item with CBS Code**. The **Grid** feature is available both in the Requestor and Bidder sides, within the Line Item tab.

Request for Bid (RFB) Type Business Process Form (Private)

If you have been invited for a private bid, you receive an RFB business process form that is not configured for public bidding. In such case, the upper form and detail form contain the following elements:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Logs** and open an RFB BP.
3) Open a record.

The record details screen opens with the following elements:

▶ **Send**
▶ **Save**
▶ **Menu Options**
▶ **Tabs**

- **General**
- **Line Item**
- **Winning Contract**
- **Proposal Management**

The Menu Options enables you to perform the following actions:

- **Print**

  To print the form (HTML, PDF, Custom)
- **Reload**

  To reload the information presented.
- **Terminate Record**
- **Transfer Ownership**
- **Undo Accept Task**
- **Help**

  To access the BP help
- **Close**

Tabs (**RFB Creation Form**)

On the left pane, the **RFB Creation Form** tab contains the following field blocks:

- **General**
- **Details**
- **Calculation**

On the right pane, the **RFB Creation Form** tab contains the following tabs:

- **Attachments**
- **Comments**
- **Linked Records**
- **Linked Mail**
- **Workflow Progress**
- **Audit Log**
- **Reference Records**

Tabs (RFB Line Item List)

On the left pane, the RFB Line Item List tab contains the following toolbar options:

- **Form View**
- **Grid View**
- **Add**
- **Actions**
- **Refresh**
- **Print**

▶ **Search**

▶ **Find on Page**

On the left pane, the RFB Line Item List tab contains the following columns:

▶ **No.**

▶ **Attachments**

▶ **Linked Records**

▶ **WBS Code**

▶ **Short Description**

▶ **Line Item Last Update Date**

▶ **Item Quantity**

▶ **Item Unit Cost**

▶ **Unit of Measure**

▶ **Amount**

The **Total Amount** is displayed at the bottom of the left pane.

On the right pane, the RFB Line Item List tab contains the following tabs:

▶ **Line Item Details**

▶ **Attachments**

▶ **Linked Records**

When the RFB record is first completed, the **Winning Contract** tab will be visible.

On the left pane, the **Winning Contract** tab contains the following toolbar options:

▶ **Form View**

▶ **Grid View**

▶ **Refresh**

▶ **Print**

▶ **Search**

▶ **Find on Page**

On the left pane, the **Winning Contract** tab contains the following columns:

▶ **No.**

▶ **Attachments**

▶ **Linked Records**

▶ **Short Description**

When the bid is initiated, the **Proposal Management** tab will be visible.

On the left pane, the **Proposal Management** tab contains the following toolbar options:

▶ **Add**

▶ **Send Invitation**

▶ **Actions**

▶ **Refresh**

▶ **Find on Page**

On the left pane, the **Proposal Management** tab contains the following columns:

▸ **Attachments**
▸ **Mail**

Inviting to RFB

For public bidding, invitations are sent to the Vendors that you have selected from the Vendors business process (a company-level BP). The Vendors BPs can be found using the following steps:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, select **Company Logs**, and then select **Vendor**.

To start the bidding process:

1) Go to the shell tab and switch to **User** mode.
2) In the left Navigator, select **Logs**, and the select **Request for Bid**.
3) Open the bid that you want to send.
4) Go to the **Proposal Management** tab.

   If this is the first time you are sending an invitation, click **Add** to open the **Add Vendors** window, select the applicable Vendors BPs, and move them from the **Available** block to the **Selected** block. When all the applicable vendors have been selected, click **Add**. See *Public Bidding* (on page 276) and *Private or Non-Public Bidding* (on page 278) for more details about the options in the **Proposal Management** tab.

5) Select a vendor from the log.

   If you are sending an invitation for the first time, click **Send Invitation**. *Unifier Essentials* sends two emails:

   1. An invitation email, which contains the Unifier Essentials Login URL.
   2. A credential email, which contains the user name and password.

   If a vendor who has received an invitation loses their password, the vendor can change their password with the **Forgot Password** link on the Sign In page. For best results, bidders should change the password at the first log in, and then sign in using the newly set password.

The left section includes the general information about the requestor and the bid.

To modify the date, click the date icon, modify the date, and click **Done**.

The right panel includes the list of invitees to whom the invitations have been either sent out or will be sent in future.

When you click **Add**, a new full-screen window overlay appears (similar to BP Picker) that lets you select the list of vendors (from the Master Vendor List BP) that you want to add to the invitees list.

Add vendors by selecting items from the **Available** list and moving them to the **Selected** list, using the arrow buttons in the middle. Click **Add** when finished.

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

▸ **Open Vendor Details**

▶ **Remove**
▶ **Send Mail**

Be aware that these options change depending on the Status of each invitation. For example, Send Mail is not available for vendors whose Status is Not Invited and Remove is visible but only functional for vendors whose Status is Not Invited.

The right pane displays the following tabs:

▶ **Attachments**
▶ **Mail**

> For correspondence with internal team members. Unopened emails are displayed in boldface type to indicate that they have not been viewed.

For an RFB BP that is enabled for public bidding, if you click **Send Invitation** after the BP is opened for public bidding, the system displays an overlay screen that lets you modify the due date. Modifying the due date in public bidding is similar to the same feature in private bidding.

To view a list of emails sent:

1) Click the **Mail** tab in the right pane.
2) Use the column headings to sort the list by **From**, **To**, **Bidder Company**, **Subject**, or **Date**, or use **Find on Page ☐_ Find on Page**   to specify search criteria.

Audit Log in Requestor BP (Private Bid and Public Bid)

The system audits all emails sent to the bidder (initial invitation, revised attachments, and so on) and makes the information available in the **Audit Log** tab of the Requestor BP record. The **Audit Log** captures the following events when an email is sent to a bidder:

▶ Adding new addendums
▶ Revising Addendums
▶ Removing Addendums or original attachments

In all the preceding cases, the event name will be Bidding. Furthermore:

▶ For adding addendums, the Action name will be "Send Addendum <Attachment name>."
▶ For Revising addendums, the Action name will be "Send Revised Addendum <Attachment name>."
▶ When addendums or original attachments are removed, the Action name will be "Removed Addendum <Attachment name>" or "Removed Original Attachment <Attachment name>."
▶ Also, the attachment name is displayed in the **Audit Log** entry.

Language, Time Zone, and Date Format for Vendors BP

While creating a Vendors BP, you have an option to set the language, date format, and time zone specific to your bidders:

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

▶ Contact Language:

- Date Format:
- Time Zone:

> **Note**: The DEs mentioned above must be included in the RFB master vendor list BP (master vendor BP/vendor master BP) to be selected by the user in runtime.

The notifications follow the preferences of the user who has been specified in Bid Management Account field who is designated as the manager for all bidders or the company bid contact. This information can be found using the following steps:

1) Go to the **Company Workspace** tab and switch to **Admin** mode.
2) In the left Navigator, select **Company Workspace**, select **Open**, and then select **Bid Management Account**.

Selecting the above options enables the bidder to receive email notifications (also Unifier Essentials Bidder Portal web page content and Bidder forms) in the bidder's language, date format, and time zone.

If the above options are not available, or not selected, the bidder receives email notifications (also Unifier Essentials Bidder Portal web page content and Bidder forms) following the user preferences whose name is indicated in the **Bid Management Account** field.

> **Note**: If the RFB master vendor list BP (master vendor BP/vendor master BP) includes Date Format data element but no value is selected, the system displays a default date format (for example, MM/DD/YYYY HH:mm AM). The uppercase MM in the date format denotes month and lowercase mm denotes minutes. The Company Administrator must set the respective bidder's date format in the RFB master vendor list BP.

Unlike a standard user, a bidder user cannot change the preferences in the bidder portal. When this option is clicked, the **Preferences** set forth in Vendor information record (for the vendor) will be seen in view only mode.

Working with RFBs

The RFB business process has a reference process to a vendor list business process, which contains the pool of vendors to whom the RFB will be sent. This vendor reference process will populate the upper fields of the RFB at runtime. The system automatically launches this reference process, when the RFB is activated.

After the RFB Business Process is active in the system, the bid procedure runs as follows:

You (the person who starts the bidding process and sends the invite):

1) Start the bid procedure by opening the RFB, filling in the form, and sending it for internal review (if necessary).
2) When the internal review is complete, you:

a. Assemble the bid package and prepare the bid invitation for distribution.

b. Send out the bid invitations, along with a user name and password, so that the vendors can log on to Unifier Essentials and submit their bids.

After the bid invitations have been sent, you must wait for the bid due date to pass.

The vendors:

1) When the vendors receive the bid invitation, they log on to Unifier Essentials and open the bid request.

2) (Optional) The vendors can request clarification of any questions or issues before submitting the bid. (The vendors can use the Mailbox link on the bid request for this purpose.)

3) The vendors then submit their bids.

You (the person who started the bidding process and sent the invite):

1) When the due date for all bids is reached, you tabulate the bids for comparison.

2) Open discussions about the bids, if necessary.

3) Award the bid to a vendor and automatically generate a contract copying relevant details from bid record into the contract.

4) Select a winning bid, after discussions with the members of your team.

In Unifier Essentials, you can create a contract from the winning bid (the bid that was selected from multiple bids) automatically, and the contract that is generated automatically will have a copy of the data from the winning bid (terms and negotiating amounts), if any. For more information, see *Select Winning Bid* and *Auto-create Contract*.

Active bids in Bidder log

When you open the **Attachments** tab, the following blocks and sub-blocks will be present, depending on the bid status:

▸ Unpublished Attachments
   ▸ Addendums
▸ Published Attachments
   ▸ Original Attachments

All active bids can receive additional attachments, from the requestor. When the bidder opens or views the bidding in the log, the new or additional attachments will be shown under the **Addendums** block.

When a bid receives a new attachment, as addendums, the system sends a new email to all bidders. The system sends a similar email when an existing bid attachment is removed.

Sending the Bid Request for Internal Review and Approval

For most companies, an internal review is necessary for the purpose of verifying the scope of the project as well as other issues such as terms and conditions, architectural drawings, and structural materials.

To send the Bid Request for internal review and approval:

1) Navigate to the RFB log, and click **Create**. The RFB BP form opens.

2) Complete the form.

3) After you submit the form for review, use the **Workflow Actions** list to send the RFB into the workflow.

   After the approval request reaches the middle of the workflow, you receive the completed BP as a task in your **Tasks** log. When you open the form this time, you should see a **Send Invitation** button on the toolbar of the **Proposal Management** tab, with which you can start the bidding process.

After the bid request is approved, you can start the bidding process.

Starting the Bidding Process

After the RFB has completed the internal review and approval, you can start the bidding process.

To start the bidding process:

1) Go to the shell tab and switch to **User** mode.

2) In the left Navigator, select **Logs**, and then select **Request for Bid**.

3) Open the bid that you want to send.

4) Go to the **Proposal Management** tab.

   If this is the first time you are sending an invitation, click **Add** to open the **Add Vendors** window, select the desired Vendors BPs, and move them from the **Available block** to the **Selected** block. When all the desired vendors have been selected, click **Add**.

5) Select a vendor from the log.

   If you are sending an invitation for the first time, click **Send Invitation**. The system sends two emails:

   1. An invitation email (contains the Unifier Essentials Login URL).

   2. A credential email (contains the username and password).

   If a vendor who has already received an invitation loses their password, the vendor can change their password with the **Forgot Password** link in the Sign In page. For best results, bidders should change the password at the first log in, and then sign in to Unifier Essentials using the newly set password.

The following provides additional information regarding the bidding process:

▸ If you need, you can modify the bidding due date in the upper portion of the **Proposal Management** tab.

▸ The list of vendors you use to distribute the bid invitations can include your company's entire list of vendors or a list of "approved vendors" specific for the project you are working on.

▸ Your administrator can design a business process that filters the master list of vendors into a subset of this list for your project. If such a subset of the vendor list has been created for your project, this is the list of vendors you will see in the Bidders window, unless this is a public bid. For public bids, the filtered vendor list will be ignored.

▸ To see the approved list of vendors with more information, go to your project **Logs** grouping node in the Navigator and click the business process that created the vendor list for your project. The system will display the list of records in that business process. To see the approved list, click **View filtered Records** on the toolbar.

> **Note**: After you have sent out all the bid invitations, the system freezes the RFB until the bid due date passes. After the due date passes, you can compare the bids.

Filtering Bidders

During the BP run-time, the list of available bidders depends on the defined options.

▸ When you do not select set additional filter for a bidder in the RFB BP, and you are in a Shell, then:

If a Line Item type BP of sub-type, "Line item to filter Company BP record" exists and the option of, "Use Master Vendor list filtered at Project level" is checked, the list of vendors will be filtered based on this existing functionality.

▸ When you select set additional filter for bidder in the RFB BP and you are in a Shell, then:

A filtered list of potential bidders is listed which includes all those bidders referenced by the BP Data Picker and the system ignores the Line Item type BP of sub-type, "Line item to filter Company BP record." To see the approved list of vendors with more information, go to your project **Logs** grouping node in the left Navigator, and click the business process that created the vendor list for your project, and from the toolbar, click **View filtered records**.

The BP Data Picker:

▸ Does not need to be populated in the RFB form.
▸ Value will always be ignored, and the system uses the query conditions on the Data Picker to filter the list of vendors.

If no query conditions are defined for the BP Data Picker, you will see the list of all vendors.

If the BP Data Picker is placed in the hidden block, you can filter the list of vendors through the defined query conditions.

Public Bidding

For public bidding, invitations are sent to the Vendors that you have selected from the Vendors business process (a company-level BP). The Vendors BPs can be found using the following steps:

1) Go to the **Company Workspace** tab and switch to **User** mode.
2) In the left Navigator, select **Company Logs**, and then select **Vendor**.

Public Bids: Requestor BP - Invite form

When you select the **Invite** option (from the menu icon), after the BP has been opened for public bidding, the **Invite** overlay page opens. The following blocks are displayed on the **Invite** overlay page:

▶ **General**

This block has the following fields:

- ▸ **Title**
- ▸ **Requester Name**
- ▸ **Phone**
- ▸ **Due Date**
- ▸ **Email**

▶ **Invitation**

This block has the following toolbar options:

- ▸ **Add**

  To add invitee.

- ▸ **Send**

  To send password.

This block has the following columns:

- ▸ **First Name**
- ▸ **Last Name**
- ▸ **Company**
- ▸ **User Id**
- ▸ **Sent Date**

The **Invite** overlay page has the following tabs (right pane):

▶ **Attachments**

Go to this tab to add additional attachments through using the **Browse** or **Document Manager** options, similar to the *Private or Non-Public Bidding* (on page 278).

All the attachments that have been added, from this form, are shown in the Addendums as well as the Attachments tab of the Requestor form (Request for Bid), similar to the *Private or Non-Public Bidding* (on page 278).

In the Requestor form (Request for Bid), **Attachments** tab, you can see the attachments that have been added from the **Proposal Management** tab. After uploading a file to the **Attachments** tab, the bidder is allowed to rename the file to ensure that meaningful names are used within the proposal.

The new column, Addendums, can be seen under the Attachments tab in the BP log of the RFB records. The additional attachments, added from the **Invite** form and sent to bidders, are also shown under the Attachments tab in the BP log, but they will be listed as Addendums.

The requestor can make changes to the attachments. Changes made to the **Attachments** tab, before an invitation is sent out to the invitees, will be audited and displayed on the **Audit Log** tab of the **Request for Bid** tab.

▶ **Mail**

Go to this tab to send email to the vendors, when the bidding is open (select **Send** and then select **Mail**).

The emails that have been sent to the bidders are shown in the **Mail** tab, similar to the *Private or Non-Public Bidding* (on page 278). The **Mail** tab includes headings such as From, To, Bidder Company, Subject, and Date. Unopened emails are displayed in boldface type to indicate that they have not been viewed.

Private or Non-Public Bidding

In the **Proposal Management** tab, click **Add**, select vendors, and click **Add** to send the invitation to the Vendors.

Private Bids: Requestor BP

In an RFB, the Requestor can send an email to the bid-invitees from the Linked Mail tab. The Requestor is also able to send emails from the **Proposal Management** tab. You can add attachments in the **Attachments** tab, within the Proposal Management tab, while the bid is open.

> **Note:** On the Attachments tab, the attachments must be identified as being added as addenda. This ensures that when the Bidder opens the bid (or views the bid) from the log, the newly added attachments are shown as addendums for the open bids.

The following explains each tab in detail.

Tab	Description
The **Attachments** tab has two sections:	**Unpublished Attachments:** The attachments added from the **Browse** option are displayed under **Unpublished Attachments**. The **Unpublished Attachments** has two sections: ▶ **Addendums:** When the bid is still open, it lists all the additional attachments that have been added, using the **Browse** option (the paper-clip icon) in the invite form. ▶ **Original Attachments:** Lists attachments that have already been sent as part of the bid invitation (and are originally attached to the Requestor form (Request for Bid) through the **Browse** option) but have not been published yet. **Published Attachments:** The attachments added from the **Document Manager** option are displayed under **Published Attachments**. The **Published Attachments** has two sections: ▶ **Addendums:** When the bid is still open, it lists all the additional attachments that have been added, using the **Document Manager** option (the paper-clip icon) in the invite form. ▶ **Original Attachments:** Lists attachments that have already been sent as part of the bid invitation (and are originally attached to the Requestor form through the **Document Manager** option) but have been published.

Tab	Description
	There are two ways to add attachments (click the paper-clip icon): ▸ **Browse** ▸ **Document Manager** When you click to add an attachment, the system displays the message: `All the invitees will receive the addendums. Do you want to continue?` ▸ If you select **Yes**, you can add the attachment. ▸ If you select **No**, the Upload File window does not open. Any attachment that gets added under the Attachments tab will be shown in the Requestor form (**Attachments** tab), as **Addendums**. You must send emails to all invitees regarding any added, removed, or updated attachments to the bids. The *gear menu (⚙)*, for the items within the **Attachments** tab, let you conduct the following functions on each item: ▸ **Revise**: To revise the document contents. ▸ **Review**: To review the document contents. ▸ **Download**: To download the document. ▸ **Remove**: To remove the document. ▸ **Rename:** To change the name of the document. When you select any of the *gear menu* options, the system displays the message: `All the invitees will receive the addendums. Do you want to continue?` The **Attachments** tab log (grid) columns in the Invite form and the Requestor form are similar to any other BP form. The **Upload Date** column (under the toolbar section and to the right) lists the dates that each attachment was uploaded. Any Attachments that are added from the Invite form as addendums are shown in the Attachments tab of the Requestor form (as addendums) after the form becomes editable. The attachments that were added as addendums can be identified under the

Tab	Description
The **Mail** tab:	The **Mail** tab lists all emails sent to bid invitees. When you select **Send** and then select **Mail** from the Invite form, a new email window will display which contains the following columns, similar to the **Linked Mail** tab: ▸ Flag: Flagged mails can be identified by using this column. ▸ Attachments: When attachments are added to an email, the **Attachment** icon is seen. ▸ From: Shows the requestor name (logged in username). ▸ To: Shows the selected bid invitees. You can select one or more invitees, and you can send emails while the bid is open. ▸ Subject: Shows the subject of the email that is sent. ▸ Date: Shows the date the email is sent. The system adds the sent emails (from the Invite form) to the Mail tab in the Invite form, and the Linked Mail tab in the Requestor form. The sent bid-invitations are displayed in the Mail tab of the Invite form. The Mail tab includes headings such as From, To, Bidder Company, Subject, and Date. Unopened emails are displayed in boldface type to indicate that they have not been viewed. **Note**: Emails must be sent only through the Invite form. The Linked Mail tab does not let you send emails to the bid-invitees. The emails sent to the bid-invitees from the **Invite** form are also shown in the **Linked Mail** tab. All the mails sent to bid invitees from the **Invite** form should also be shown in **Linked Mail** tab.

Bidders and Passwords

The bidders *who have used* the system before:

▸ Will not receive a new password when they create/submit a new bid.
▸ Are expected to use the password they had used from the previous bid to log in to Unifier Essentials.
▸ Can use the "Forgot Password" process, if they have forgotten their password.
▸ Receive an email from Unifier Essentials containing the new bid and the URL that they can use.

The new bidders *who have not used* the system before, receive an email from the system inviting them to the bid followed by a second email that contains a user name and system-generated password.

Comparing the Bids (Standard View)

After the bidding process ends (after the bid due date has passed), you can open a bid tabulation to compare the bids you received. A default bid tabulation sheet is available in the system, or your company may have a custom-designed bid tabulation sheet.

To compare bids:

1) Open the Request for Bid (RFB) record.
2) Click the **Proposal Management** tab to view the bids you received. After the bid is closed, upon selecting the bid, you can only view the information of the invitation that was sent, along with the bids that have been received.
3) From the list, select the vendors you want to compare and click **Compare**. The Bids Comparison window opens, showing the bids you selected. From the toolbar, check **Star Vendors Only** to view the data of only shortlisted vendors. To compare the line item total with reference to the selected proposal, select a proposal from the **Compare with** list. The list includes all proposals selected for comparison.
4) Click **Save** or **Cancel** after making any edits.

Record Details tab

By default, the Bids Comparison sheet opens in the **Record Details** tab where you can view requestor estimates and proposals in a multiform view.

Reorder bids by hovering the top of the bids and dragging them to the desired position.

Use the **Bidder Qualification** list to designate each bid as Qualified, Not Responsive - Disqualified, or Not Responsible - Disqualified.

Hover the top of a bid to view a menu in which you can:

▸ **Send Email**

▶ **Open Vendor Details**

▶ **Open Proposal**

Line Items tab

To view the bid comparison in a grouped grid view, navigate to the **Line Items** tab.

The grid contains a **Short Description** column, a **Requestor Estimates Column**, and **Vendor Column Groups**.

The **Short Description** column lists all lines entered by the requestor and additional lines entered by each vendor. Additional lines display 0.00 for vendors who have not quoted.

The **Requestor Estimates Column** contains data elements selected for comparison for the detail form. This column is fixed and cannot be sorted.

Each **Vendor Column Group** contains all data elements that have been included for comparison from the detail form. The lowest amount per line item among all visible vendors in the grid displays in green. The highest amount per line item among all visible vendors in the grid displays in red.

Select Winning Bid

To select the winning bid:

1) Open the RFB record.
2) Go to the **Proposal Management** tab.
3) Select the bid to accept.
4) Click **Award**.

> **Note:** If you click **Yes** to proceed, awarding the winning contract removes all existing line items from the **Winning Contract** tab and replaces them with the line items per the selected winning contract.

Requestor Upper Forms

The Bid Picker (Winning Bid) is available on any Requestor Upper Forms of an RFB type Business Process as a second Detail tab (Winning Bid). The "Select Winning Bid" properties window lets you select a bid, clear bid selections, and find bids.

▶ You cannot select a winning bid unless the bidding process has been completed.

▶ After the bidding process has been completed, you can select a bid and click Select. When you select a bid as the winner, then:

▶ The winning bid picker displays the name of the company that has been selected (Company Name).

If the Requestor form has the second Detail tab (Winning Bid), all the lines of the winning bid form will be copied into the second Detail tab (Winning Bid). Lines are copied according to the matching DEs from the Bidder Detail form and the Bid Comparison Sheet. If additional DEs have been included in the Bid Comparison Sheet, the additional DEs will be copied into the second Detail tab (Winning Bid) if the second Detail tab (Winning Bid) contains the matching DEs. The DEs in the Bidder Detail form and the DEs in the Bid Comparison must match so you can copy data.

For each copied line item, the value of the CBS Code (`bitemID`), or a CBS Name (`bi_item`) must be mapped from the corresponding line item in the standard tab Detail line item.

Example

Assume a standard tab that has 3 line items and each line item is associated with a CBS Code. When bids are requested, these 3 line items will be copied into the Bidder Detail tab so that the Bidder can bid on those 3 line items. The Bidder form (Bidder Detail tab) does not allow placing `bitemID`, `bi_item` DEs. As a result, the Bidder form line items will not display the CBS Code, or the CBS Name.

When Bidder A adds 2 more line items to the Bidder form before submitting the bid. After all bids have been submitted, the Bid Comparison Sheet column for Bidder A shows 5 line items (3 line items from the Requestor standard tab, and the 2 line items that have been added by Bidder A, manually).

If Bidder A is selected as winner, and the requestor adds more line items such as the negotiated amount, price, quantity, and so forth, the Bid Comparison Sheet, for the winner (Bidder A) will have more information than originally included by Bidder A, when Bidder A submitted the bid.

> **Note**: The additional line items that the requestor has added must be captured in the "Bid Comparison Sheet" by the requestor by way of adding corresponding DEs.

All line items, within the second Detail tab (Winning Bid) must be valid before an RFB record can be successfully routed to next step. If you change the value of a "Winning Bid" picker on the Requestor Upper form, the existing line items in the tab (<winning bid tab name>) will be removed and the system sends a confirmation request. If you confirm the change, the Winning Bid selector displays the new value and all the line items from the second Detail tab (Winning Bid) will be deleted.

If you use the Clear option in the winning bid selector window, the existing line items in the tab (<winning bid tab name>) will be removed and the system sends a confirmation request. If you confirm the change, the confirmation window and the winning bid selector window will close, the winning bid selector value will be cleared, and all line items from second Detail tab (Winning Bid) will be deleted, including line items add manually.

The system saves the following information to the database, each time you make a winning bid selection:

▸ Winning Bid picker value
▸ Winning Bid Detail tab line items

▶ Any DEs on Requestor Upper form which are set to auto-populate from winning bid picker

As a result, if you select a winning bid and perform an Undo Accept Task, then:

▶ Winning bid will stay as selected
▶ Winning bid tab Detail line items will persist and not revert
▶ Fields that receive AP from winning bid will be persisted and will not revert
▶ Other DEs will be reverted back as per existing functionality

> **Note**: If the winning bid picker is blank, but the Winning Bid Detail tab
> has line items that have been manually added, the manually added line
> item will be removed when you perform an Undo Accept Task.

If you close a form window without saving the form:

▶ Winning bid Picker, auto-populated fields, and the winning bid Detail tab line items will still be saved as records
▶ Other fields will not be saved (as per existing functionality)

To clear the winning bid related information, you can do one of the following:

▶ Clear, or reselect, the winning bid Detail tab to its previous value before performing Undo Accept Task.
▶ If you performed Undo Accept Task, click Accept Task, and reselect, or deselect the winning bid picker.

If there is more than one assignee on a step:

▶ When user 2 tries to select the winning bid, if user 1 has already done a selection, user 2 will receive an alert notifying user 2 that some of the line items have already been saved to the winning bid tab (<winning bid tab name>) and the action taken by user 2 will remove all those lines and recreate lines as per new information in the DE (<label of DE `uuu_rfb_winning_bid`>) selection.
▶ New line items will be created in the winning bid Detail tab as per user 2's response.

The special runtime behavior of the winning bid Detail tab is connected to the winning bid selector DE (`uuu_rfb_winning_bid`). You can select not to place the winning bid selector DE (`uuu_rfb_winning_bid`) on the form and still use the winning bid Detail tab by naming it something else. The winning bid Detail tab will behave like any other non-standard detail tab in such a scenario.

Also, similar to other Detail tabs in Business Processes, you can delete line items from the winning bid Detail tab if it is configured as such.

Additional information about selecting winning bid

To keep winning bid details hidden from the bidder, if a user signs in as a "Bidder," the requestor Winning Bid Detail tab will remain hidden.

If you select a bid using the winning bid selector on RFB Upper form, the winning bid will be highlighted in the following window:

▶ Select Winning Bid: By way of displaying the selected bid in bold typeface.
▶ Show: By way of displaying the "Winning Bid" column.

▶ Compare: By way of displaying the selected bid in bold typeface.

> **Note**: The DE of DD = Bid Picker will not be available for bulk editing or bulk action.

When you copy an RFB record to create an RFB record, note that:

▶ Not all the line items in the winning bid Detail tab are going to be copied.
▶ The picker "Winner Bid" will not be copied.
▶ DEs will be copied, similar to the standard copy behavior for records in the system.

Auto-create Contract

When an additional Detail tab (for the Requestor section of all RFB type Business Process forms) is available, you can use the second **Detail** tab (non-standard tab) to record the lines of the winning bid, as the user copies the data from the **Bid Comparison Sheet**.

In general, the **Bid Comparison Sheet**, for a preferred bidder, contains more information than the information submitted by the bidder.

The second **Detail** tab is similar to that of any other non-standard **Detail** tab on any other Cost-type BP which allows multiple tabs.

To be able to use this feature, the following conditions must exist:

▶ The "uuu_rfb_winning_bid" data element must be included in the RFB requestor form.
▶ At least one bidding process must be completed.

After these conditions are met, you can select the winning bid.

The **Result** window displays all the completed bids. You can select one bid as the winning bid and after selecting that bid the system copies all the lines of the winning bid onto the **Winning Bid** tab.

The system copies the lines base on the matching data elements available on the:

▶ **Bidder** detail form
▶ **Bid Comparison Sheet**

The destination record is created by auto-creation and selecting a Winning Bid is not required for successful auto-creation.

The BP Creator is available after all the mapping to the second Detail tab (Winning Bid) is complete.

What the Vendor Does

Use the instructions in this section to familiarize vendors with the Unifier Essentials interface so they can submit bids.

When a bidder is invited to bid for the first time, the system sends two emails simultaneously:

▶ Invitation email, which contains the URL to log on to Unifier Essentials.

▶ Credential email, which contains the username and system-generated password.

> **Note:** For best results, a bidder should change their password at the first log in, and then sign in using the newly set password.

About the Bid Due Date Time

Be aware that the due date and time for the bid reflect the time of the server on which Unifier Essentials is running. (Unifier Essentials servers operate on Pacific Standard Time.)

To sign in:

If you received a bid invitation, you should also have received an email containing a link to Unifier Essentials, a user name, and a password.

1) Open the bid invitation, and click the link provided.
2) At the login screen, enter the user name and password provided in the email.

    The Unifier Essentials home screen opens.

To submit a bid:

1) In the left Navigator, select **Request for Bid/Bids** (or **Request for Bid Private/Bids** if you have been invited for a private bid). A bid log appears on the right pane showing a list of open bids you have been invited to submit.

    By default, the system displays only open bids. If you want to see all the bids you have been invited to submit, use the View menu. Click the arrow and choose All from the list. The system will display all your bids, past and present.

2) In the Request for Bid log, double-click the name of the RFB you have received. The **Request for Bid** form opens.

    Before you submit the bid, you can communicate with the requestor about any questions or issues that need clarification. The Request for Bid form provides a link to a Unifier Essentials Mailbox feature. To send a communication:

    a. Click the **Linked Mail** tab at the top of the window. The Linked Mail tab shows a chronological list of any existing communications.

    b. Click **Add** and then select **New Mail**. An email-type form opens, where you can send a communication to the requestor.

3) To participate in the bid, you must accept the request for bid using the **Accept** button in the upper-right corner.

4) Fill in the upper-form fields that are required.

5) Go to the **Line Item List** tab and add line items to the form through one of the following methods:

    a. Click the **Add** button. Then, in the right pane, fill in the fields on the Line Item Details tab and click **Save** or **Save & Add New**. The line item detail you entered appears in the log on the left pane.

    b. Use the **Export** button to export a CSV or Excel template of the line item form to be opened in a separate application that reads CSV or Excel files. After the correct information has been added to the CSV or Excel file, use the **Import** button to create line items based on the data in the CSV or Excel file. For more information about this process, see *Importing Line Items to a Request for Bid*.

6) (Optional) To add an attachment to the bid, open the Attachments tab in the right pane and click **Attach Files** and then select **Browse**. A file upload window opens.

   a. Within this window, click **Browse** to search your system for files to attach. Alternatively, you can drag and drop files into the window.

   b. Navigate to the file you want to attach and select it. Then click **Open**. The file name appears in the list

   c. Click the **Upload** button. After the file has been uploaded, the window will close automatically.

      On the Request for Bid form, Unifier Essentials indicates the attachment in the lower-left corner of the window. You can click **Attachments** to verify that the attachment is correct, or rename or remove an attachment.

7) Click **Submit Proposal** to finalize the bid, or **Save** to save changes to the bid.

The following rules apply when a bidder accesses new forms:

▸ If the Requestor has created the bid request in Classic view, the bidder will be able to perform all subsequent actions (such as View the request/Create Bids in Classic view).

▸ If the Requestor has created the bid request in Standard view, the bidder will be able to perform all subsequent actions (such as View the request/Create Bids in Standard view).

▸ After the bid is submitted and the due date is passed, Unifier Essentials opens the RFB form in Standard view.

To withdraw a bid:

1) Sign in to Unifier Essentials.

2) In the left Navigator, select **Request for Bid/Bids** (or **Request for Bid Private/Bids**, if you were invited for a private bid). A bid log appears on the right pane.

3) In the log, double-click the name of the RFB you received. The Request for Bid form opens.

4) Click the **Withdraw** button in the upper-right corner of the window.

To view or print the bid after submitting it:

1) Sign in to Unifier Essentials.

2) In the left Navigator, select **Request for Bid/Bids** (or **Request for Bid Private/Bids**, if you were invited for a private bid). A bid log appears on the right pane.

3) In the log, select the bid record that you want to view or print.

4) Click the Print button and select one of the following:

   ▸ **Print**

   ▸ **Export To CSV**

   ▸ **Export To Excel**

Importing Line Items to a Request for Bid

You can export a template for CSV or Excel that includes the line item detail form fields as columns for the Request for Bid business process. These fields include the detail form line item fields defined in Integration.

You can then modify the exported template and import it to create line items for the RFB.

> **Note:** To import or export line item templates, you must first accept the bid.

To export the request for bid line item template:

1) Navigate to the Request for Bid business process log.
2) Open a bid from the log.
3) Go to the **Line Item List** tab.
4) Click Export and select one of the following options:
   ‣ **Export Line Item Template in CSV**
   ‣ **Export All Line Items in CSV**
   ‣ **Export Line Item Template in Microsoft Excel**
   ‣ **Export All Line Items in Microsoft Excel**

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

To modify the request for bid line item template:

1) Open the exported CSV or Excel file in Microsoft Excel. The line item columns are listed.
2) Enter the line item information into the spreadsheet. Each line must begin with a "D". For multiple tabs, you must enter appropriate tab name in the Tab Name column.
3) Enter data into the required fields, as well as non-required fields as needed.

   > **Notes:**
   >
   > ▪ Data for formula-based columns is ignored.
   > ▪ Any line items with the Amount equal to zero will not be imported.
   > ▪ Ensure that you are importing the records you want to import. Any line items that you import will be added after any existing line items.
   > ▪ Use to add new lines only, not to modify existing lines
   > ▪ All data created through the CSV or Excel import is rolled up to the cost sheet
   > ▪ For data to import correctly, you might have to change some of the cells in the CSV or Excel file to Text type. For example, if you have a CBS code of 1-1, Microsoft Excel can interpret this entry as a month-day combination and reformat it to Jan-1. In this case, your data import will fail because this data is now an invalid CBS code.
   > ▪ Image picker data elements will not be shown in the CSV or Excel template.

To import the request for bid line item template:

1) Navigate to the Request for Bid business process log.
2) Open a bid from the log.
3) Go to the **Line Item List** tab.
4) Click Export and select one of the following options:

> ▸ **Data From CSV File**
> ▸ **Data From Excel File**

5) Browse to select the file to import, and then click **Next**.

6) Add any attachments to the import.

7) Click **Upload** when finished.

   If there are any import errors, you can open the CSV or Excel file to view and correct the error. No records are imported if any rows contain an import error.

Changing Vendor Email Address

You can change the bidder email in the **RFB Vendors BP** by selecting **Line Item Type Vendor** and then selecting **Bidder Email**.

If you accept the change (click **Finish Editing** or **Save** and then click **Yes**), the system updates the vendor record, with the new email address.

▸ If there are active bids for the vendor, the system sends an email to the vendor with their username and password.

▸ If there are no active bids, the system changes the email address, but the system does not send an email to the vendor.

   Unifier Essentials deactivates the old email address.

   If you change the vendor's email to an email that exists in the system, the following message will be displayed: Existing email or username cannot be used.

If you do not accept the change (click **Finish** and then click **No**), the system reverts to the original email address.

To change the vendor email address through integration or Bulk Edit:

If you update the vendor's email address on the vendor record by way of integration or Bulk Edit, the system updates the record with the new email address and sends an email to the vendor, if the bids are active.

> **Note**: The system does not send an email to the vendor if the bids are inactive.

Entering Values in Fields

This topic provides information about entering data in fields.

Field	Entering Data
Date Picker	When entering a date in the Date or Date Only pickers, the "Today" and "Now" options are not available.
Date Only Picker	When entering a date in the Date or Date Only pickers, the "Today" and "Now"

Field	Entering Data
	options are not available.
Drop-down (Pull Down)	The quick search does not have a search bar, and by default, the cursor is placed at the end of 'Search.' The label must be cleared before entering value.