



## **New Features in Primavera Unifier 16.2**

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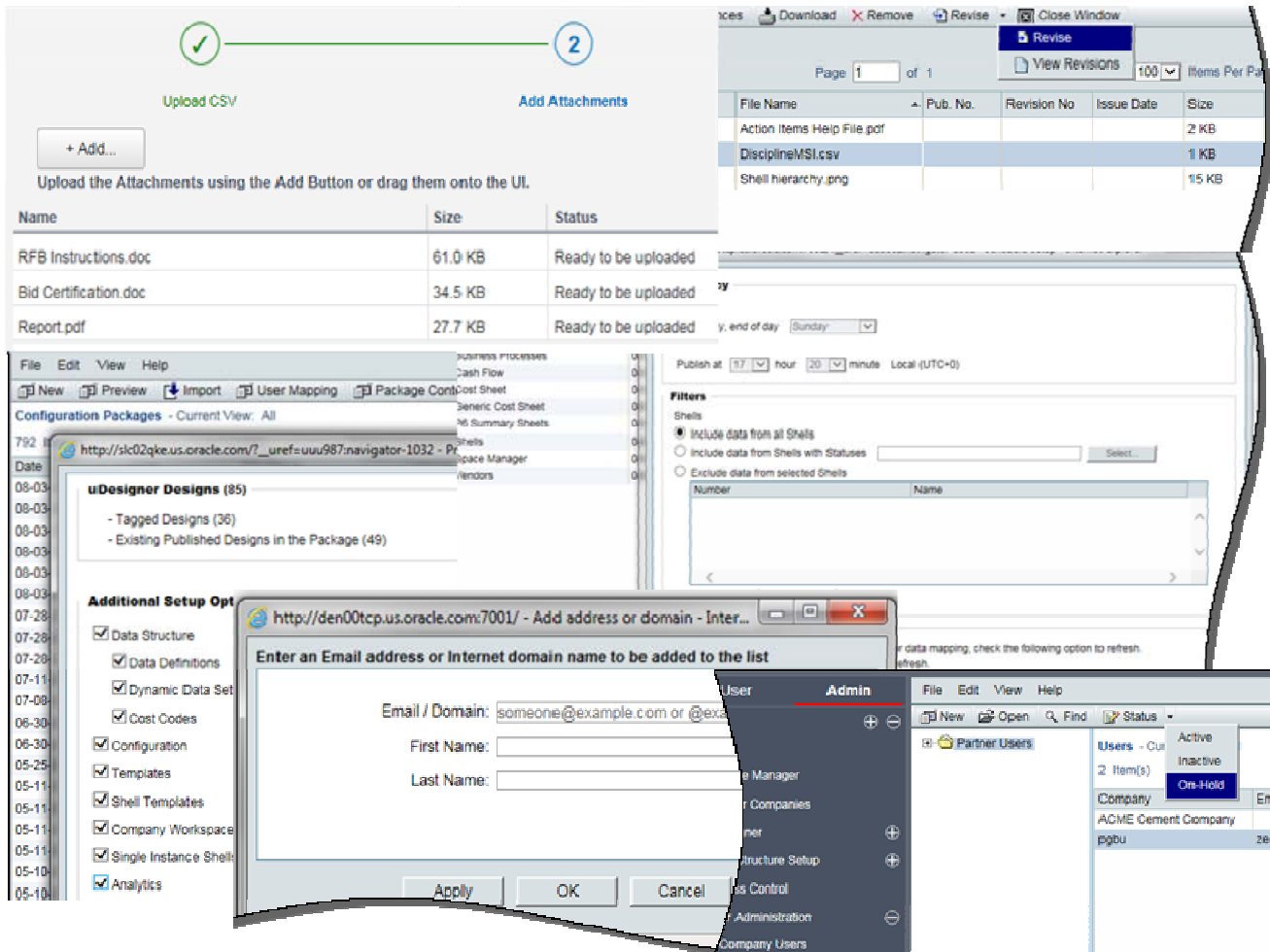
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# New Features in Primavera Unifier 16.2

New features include:

- Configuration packages
- Document Management enhancements
- Unifier Analytics enhancements
- Partner company and users enhancements
- Project mailbox enhancement



# Configuration Packages

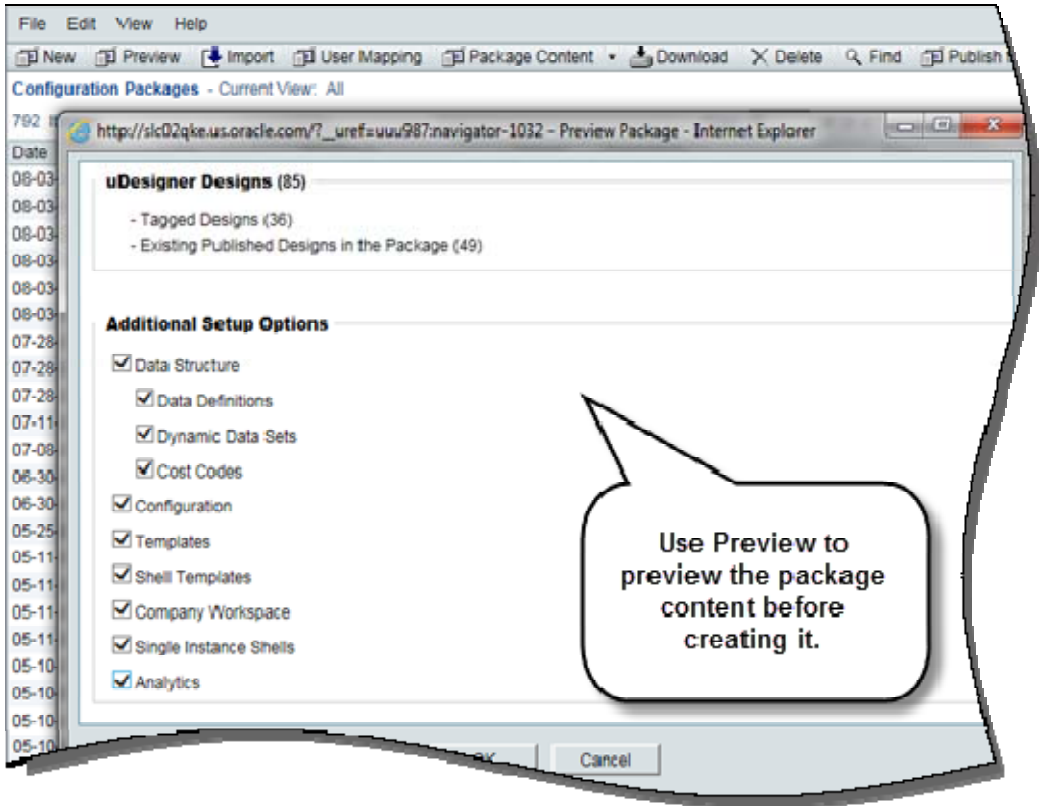
Unifier 16.2 provides a more holistic solution to production bundles by including additional components such as cost sheet, cash flow, schedules of values, dashboards, fund sheets, rules, etc. Production bundles are now called configuration packages.

In Unifier versions 15.2 and 16.1, if additional setup options in the Create New Bundle interface are selected, then the production bundle automatically includes configurations and setups of tagged shell templates, single instance shells and company workspace along with permissions, users and groups associated with those tagged uDesigner designs.

In Unifier 16.2, this automatic inclusion of configurations and setups of tagged uDesigner designs has been removed. In this release, tag options are provided in setup and configuration logs of Unifier objects. You must explicitly tag a configuration and/or setup if you want to include it in a configuration package. For first time export, there is a dependency on tagged uDesigner designs. For subsequent exports, as long as data elements used in the setup has been included in the published package, designs need not be tagged for configuration packages. During import, the system performs a dependency check. Import fails even if there is a single error.

Impacted areas:

- Change of name from Production Bundles to Configuration Packages. This impacts labels in Access Control and Permissions tabs in users and groups.
- Tag options are now provided in all Configuration logs; logs display two additional columns – Tag, and Last Packaged Date.
- Setup information for uDesigner objects such as Space Manager, Configurable Manager, etc., in shell templates, single instance shells and Company Workspace.
- Setup information of company level (global) templates.
- Setup information of embedded sheets such as cost sheet, funding sheet, configurable manager sheets in shell templates.
- Analytics setup.
- Label changes in Configuration Packages log: Production Bundles log = Configuration Packages log; Publish = Publish for Production, Bundle Content = Package Content.
- Tag options have changed in supported logs. For example, the Tag list in a single instance shell log displays Configuration Package and Clear instead of Production and Clear.
- Tag options in uDesigner are no longer tied to a server setting. For example, the Tag list in the Designer – Business Processes log displays Design Bundle, Configuration Package, and Clear instead of Staging, Production, and Clear.
- Create New Package window is modified and displays new options.
- A new Preview function that enables you to preview the package content prior to creating the package. Dependency and other errors are displayed when you click OK. (See screenshots below.)



Report Close Window

Package Content Errors/Warnings - Current View: All

2 Item(s)

Error Type	Error Message	Package Type	Component	Design ID	Name	Description	Shell Number
Error	[PG_DP2] is not complete or its latest version is not deployed yet.	Design Bundle	uDesigner Designs	up14	PG_DP2		
Error	[152 Change Commit WF] is not complete or its latest version is not deployed yet.	Design Bundle	uDesigner Designs	uxchang2	152 Change Commit WF		

**To view this feature:** In Company Workspace, Administration mode, navigate to Configuration Packages. Prior to that, tag designs, configurations, templates and shell templates plus components, as needed, in their respective logs.

# Document Management

Primavera Unifier 16.2 provides document-related enhancements, primarily associated with files attached to business processes, in order to improve usability and user experiences. They include:

- Document revisions on business processes. Documents are published along with their revisions. This also applies to document upload to the Document Manager.
- Document review, especially when there are multiple line items with attachments.
- Adding file attachments to business process records via CSV import.

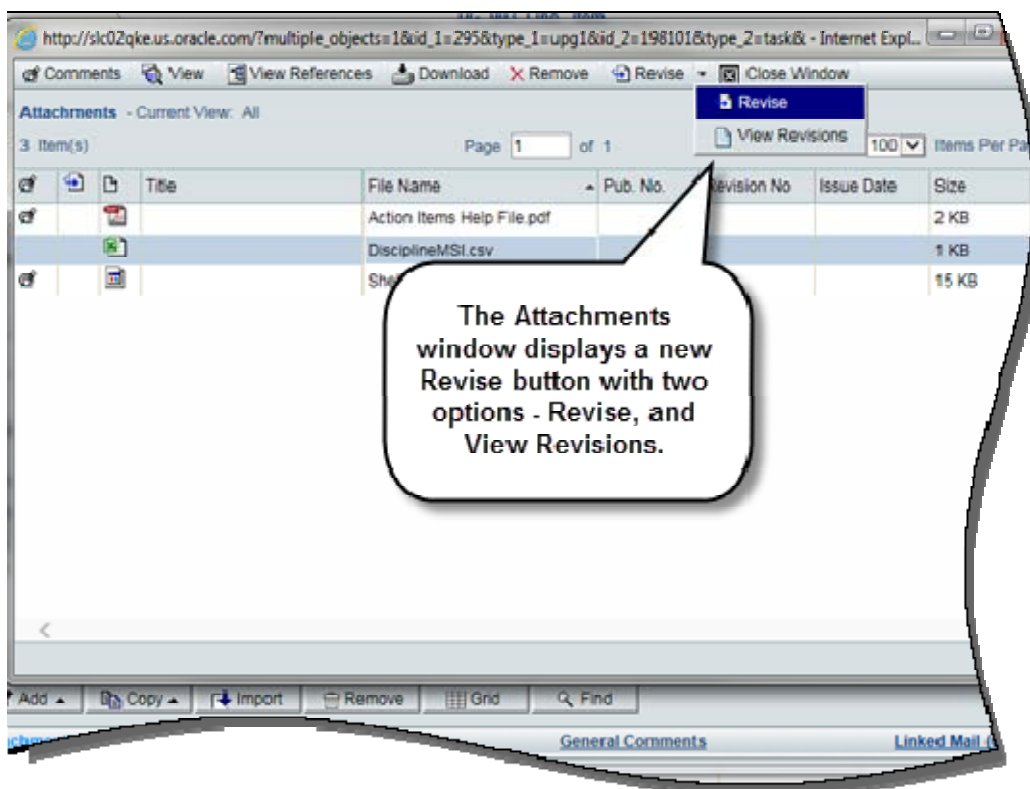
In addition, new folder and document web services are enabled through the Document Manager REST API.

## Document Revisions on Business Processes

Starting from Unifier 16.2, you can revise documents attached to business process records. In prior versions, in order to revise an attached document, you have to first remove existing attachments and then re-upload the revised files.

Enhancements:

- A new Revise button is available on the Attachments screen with two list options -- Revise and View Revisions, for any line item or a record.
- The option 'Revise automatically if the file with the same name exists' is now enabled, while attaching documents to business processes.
- When a document is published, all its revisions are published as well. This also applies to cases where you directly upload documents to the Document Manager – manually or via the auto-publish feature (uuu\_dm\_publish\_path).
- Revisions through Webservice are now supported.



**To view this feature:** Assuming a business process has been designed to support attachments, navigate to the business process log. Open a record with attachments (at a supported step, if it is a workflow business process). Click the Attachments link at the bottom the record or a line item's detail form.



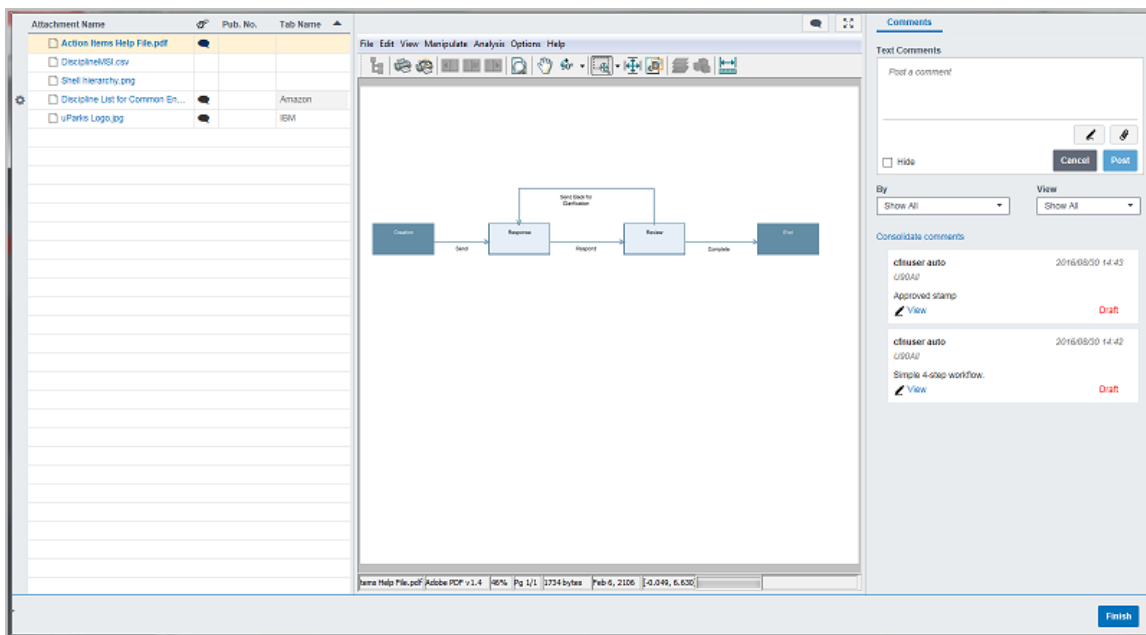
### Document Review Enhancements

This Unifier 16.2 enhancement facilitates document review when attachments are present on a business process record and its line items. In prior Unifier versions, reviewing line item attachments is a tedious process. You must open each line item to access its attachments. Note that the new Review functionality requires an AutoVue connection.

A new toolbar option, Review is available in supported business processes (line item and document), which allows you to review all attached documents -- record and line item in the same screen. Choose an attachment, view the attachment in the right pane and be able to comment in the Comments tab. If the document is attached to a line item, the line item tab corresponding to that line item is displayed next to the Comments section. If enabled, you can edit the fields in the detail form of the tab. (Editing is not supported in cost business processes of Summary Payment Applications type.)

Note: Attachments on hidden and query-based tabs are not seen. Attachments are read-only in a form's View mode, or when the record is in Terminal status or is terminated.

Intelli-stamps in Markup: Unifier 16.2 ships default stamps which you can use on reviewed documents. These stamps essentially form a part of the Markup. While adding a new markup to a document, you can choose to add a stamp to a document.



The Review window's left panel lists record and line item attachments and their revisions. In the center panel, view and mark up the document in the AutoVue viewer. In the Comments tab, add and view comments to a selected document. In case of a line item attachment, view and edit the tab's detail form.

**To view this feature:** Navigate to the log of a line item or document business process. Open a record with attachments. Click the Review button the form's toolbar to view all attachments in one place.

## CSV Import of File Attachments

This Unifier 16.2 enhancement provides a means to include attachments when you use a CSV file to create a record or add line items. Use the last column (reserved for attachments) to specify attachment names for record and line items. View the new instruction line for adding attachments. Use “:” to separate multiple attachments for a specific row.

In Unifier, the Import screen has a new UI. It has two sections. Use the first section to upload the .csv file. Use the second section to upload the attachments - all together or one by one.

**1** Upload CSV

Select a CSV to upload or drag one onto this window

Select File

LinItemWorkOrder\_interface.csv

**2** Add Attachments

First, upload the CSV import file in which you have listed record and line item attachments.

**1** Upload CSV

+ Add...

Upload the Attachments using the Add Button or drag them onto the UI.

Name	Size	Status
RFB Instructions.doc	61.0 KB	Ready to be uploaded
Bid Certification.doc	34.5 KB	Ready to be uploaded
Report.pdf	27.7 KB	Ready to be uploaded

Click Add to add the documents. Then, click Upload.

Cancel Next >

### Document Manager REST API

Authorization: OWSM is used to authenticate the user for webservices call only. User credentials will be created in Weblogic Security Realms and it will pass as Authorization header in the request. If credentials match then REST service will be executed else a response code of 401 will be sent to the user.

Webservices include the following folder services and document services:

#### Folder Services

#	Web Service	Purpose
1.	Create folder	Create folders under one or more parent folders.
2.	Create folder by parent ID	Create folders under a specific folder, specified as node ID in the service call's path parameter.
3.	Update folder metadata by path	Update folders' metadata using the folder path.
4.	Update folder metadata by node ID	Update a specific folder metadata using the folder node ID.
5.	Get folder/document metadata by path	Get the folder or document metadata under a given folder path.
6.	Get folder/document metadata by parent node ID	Get the folder or document metadata using the parent folder node ID.

#### Document Services

#	Web Service	Purpose
1.	Create document by path	Add documents and their metadata to particular DM folders via web services. The web service adds documents to multiple folders based on the Path parameter in the data. Web service can add a revision to an existing document or create a new document.
2.	Create document by parent node ID	Add documents and their metadata to particular DM folders using the folder node ID. Web service can add a revision to an existing document or create a new document.
3.	Update document metadata by path	Modify the metadata for documents in a folder using the folder path value.
4.	Update document metadata by node ID	Modify the metadata for a particular document using the node ID.
5.	Get document by path	Retrieve all the documents under a folder using the folder path.
6.	Get document by parent node ID	Retrieve all the documents under a folder using the parent folder node ID.

# Unifier Analytics Enhancements

## Generic Cost Sheet Module

Starting with Unifier release 16.2, Primavera Analytics supports reporting and analyzing Generic Cost Sheet (CM0) data, related to generic cost codes. This is particularly useful for users of the Facilities Management and Real Estate Management (FMRE) application, where shell types are typically based on CM0.

A new Generic Cost Sheet module is available in the Analytics log. The UI displays Name, Data Source, and Label columns, where Name is the field used in OBI, and Data Source is a single or logical generic cost sheet data source. Label auto-populates from the selected data source and is editable. Map OBI custom fields to corresponding cost sheet columns that represent facts and dimensions. Configure up to 40 columns.

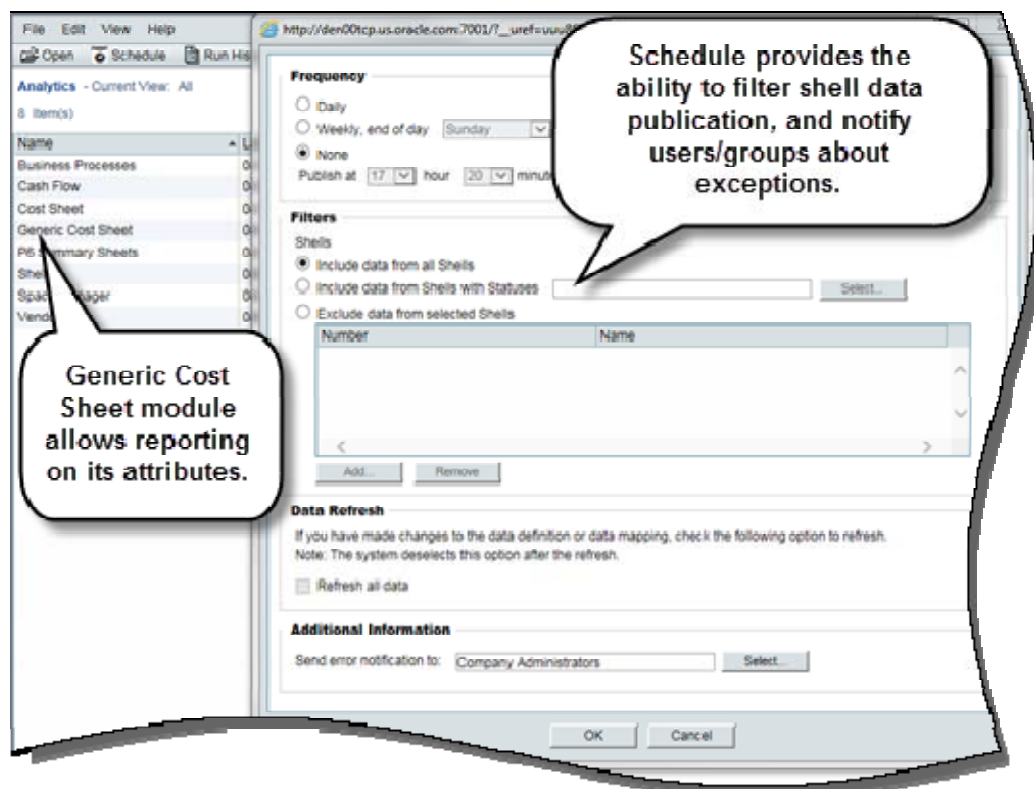
## Schedule

Two new sections are added to the Schedule interface:

- In the new **Filters** section, Shells options enable you to set up filtering conditions on the published shell data. Send data from all shells, shells with specific statuses (inactive, active, on-hold, or view-only), or specify shells whose data is to be excluded during data publication.
- In the **Additional Information** section, select the user or group to be notified in case of failed runs.

## Analytics in Shell Dashboard Portlet block

Use a Portlet block to directly load specific Primavera Analytics analyses by inserting a targeted URL within it. (This is in addition to the current Analytics block functionality that allows you to launch and view dashboards in Primavera Analytics.) Note: On-premises customers must make additional configurations in OBIEE to allow the OBI analysis to render properly.



**To view this feature:** In Company Workspace, Administration mode, navigate to the Analytics log. View the new Generic Cost Sheet module and the enhanced Schedule functionality and UI.

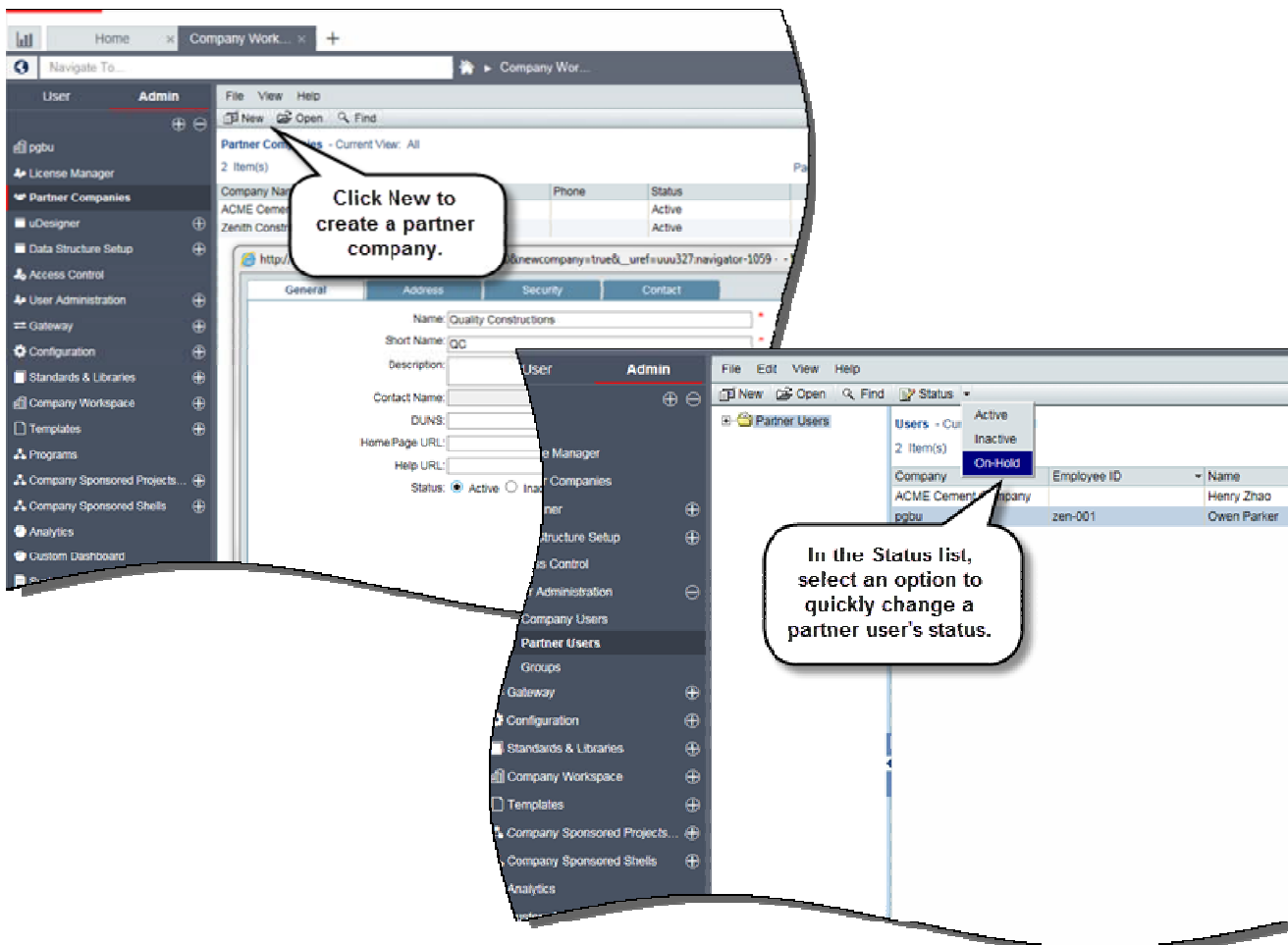
# Partner Company and Partner Users Creation

Unifier 16.2 provides a simplified process for creating partner company and partner users. Company administrators of on-premises companies can now create partner companies.

Prior to Unifier 16.2, this function could be performed by site administrators only. Company administrators added partner companies and their users from a pool created by the site administrators.

Impacted areas:

- Partner Companies log: Toolbar options have changed. Create replaces Add. Click New to open the Company Creation window with four tabs: General, Address, Security, and Contact.
- User Administration, Partner Users: Click New to create a partner user. In the user creation window, first select a partner company in the Partner Company list. When partner users are created, the system checks to ensure that the partner user license is not exceeded. The Status list allows you to change the status of a partner user without opening the user properties.
- The site administration interface has also changed. The site administrator cannot create partner companies in this log. Instead, partner companies and associated users can be created from Partner Companies and Partner Users logs, respectively.



**To view this feature:** Create partner companies: In Company Workspace, Administration mode, navigate to the Partner Companies log. Create partner users: In Company Workspace, Administration mode, navigate to the User Administration, Partner Users log.

## Project Mailbox - Approved Email List Enhancements

Unifier 16.2 provides the ability to define a domain or email address to enable communication between a Unifier project mailbox and external email recipients. (In prior versions, this communication was possible only with external email addresses added to the Approved Email List under Standards & Libraries in the Company Workspace tab.) The enhancement now allows company administrators to type the domain address of external users to the approved email list.

Impacted areas in the Approved Email List Log:

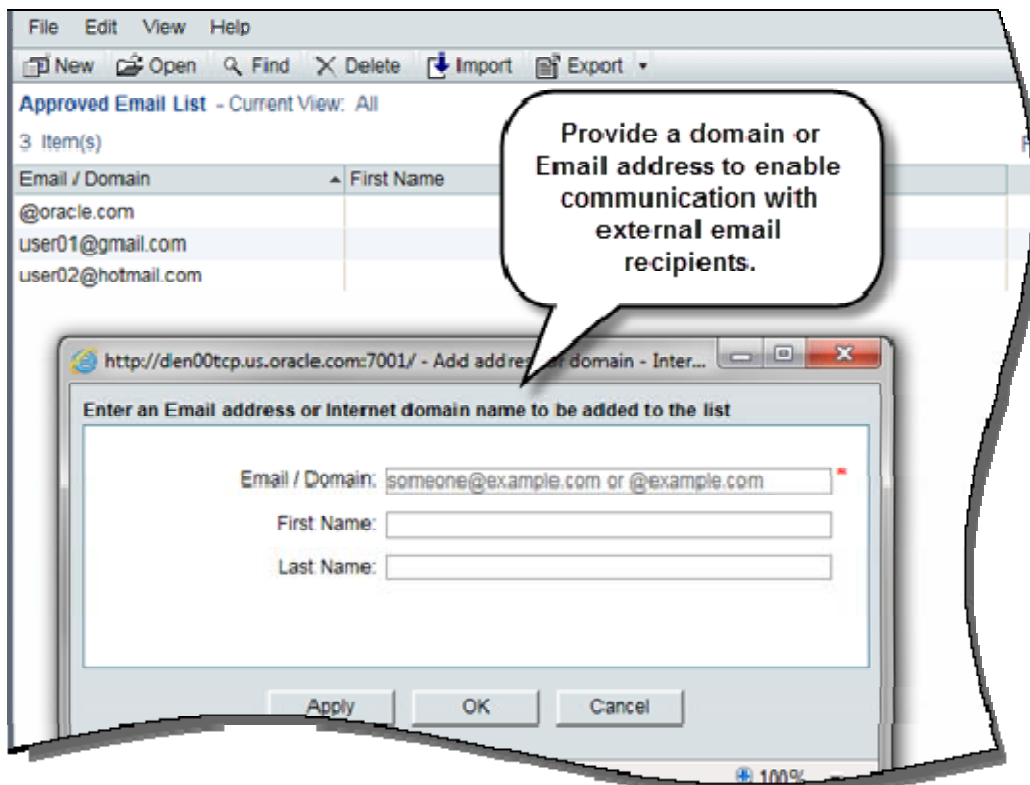
### **Add window:**

- Window name: Add/Edit Approved Emails is changed to Add address or domain.
- Window header: Enter an Email address or Internet domain name to be added to the list.
- Email / Domain field: This is a required field. Enter either the address or the domain name.
- First Name and Last Name fields are optional fields for email address. If domain name is selected, these fields are disabled.
- Validations specific to domain name are provided. Existing validation for email address, which prevents users from using @ as the starting character, has been removed.

**Approved Email List Log:** Column name of Email in the log is now Email / Domain.

**Find:** Corresponding changes are seen in Find, allowing you to search on email address or the domain address.

**Export/Import:** The CSV file for all Export options (All, Selected Row, Structure) include both domain and email addresses. The list displays the domain names, followed by email addresses. The Import CSV template can include email addresses and domain names. Validations are performed during import. In addition, First and Last Name field values entered in the Domain rows are ignored.



**To view this feature:** In Company Workspace, Administration mode, navigate to the Approved Email List log under Standards & Libraries.

# Currency Format Enhancement

Unifier 16.2 provides the option to *not* display a currency symbol. This is useful for customers who track non-cost field values using Currency Amount data definition.

A Show Currency Symbol check box is provided in the Region Format tab of User Preferences and User Preference Templates. Default is checked. The enhancement impacts all areas where the currency data element is displayed with symbol – dashboards, logs, cost sheets, cash flow, etc.

The image shows two screenshots of a table. The top screenshot shows a table with columns: Item #, Contract No, Title, Amount, and Last U. The bottom screenshot shows a table with columns: Record #, Contract No, Title, Amount, and La-. A speech bubble points to the difference in the Amount column between the two screenshots.

Item #	Contract No	Title	Amount	Last U
005	5	Div 16 - Electrical 1	\$600,000.00	Stude
004	4		\$1,300,000.00	Stude
003	3		\$1,300,000.00	Stude
002	2		\$1,800,000.00	Stude
0001	16		\$1,205,000.00	Stude

You have the option to show or hide currency symbols.

Record #	Contract No	Title	Amount	La-
BI-000005	5	Div 16 - Electrical 1	600,000.00	Stu
BI-000004	4	Div 11 - 15	1,300,000.00	Stu
BI-000003	3	Div 06 - 10	1,300,000.00	Stu
BI-000002	2	Div 00 - 05	1,800,000.00	Stu
BI-000001	16	Div 16 - Electrical	1,205,000.00	Stu

### To view this feature:

- User Preferences: Click Preferences, Region Format tab in the Username list. Clear the Show Currency Symbol check box.
- User Preference Templates: In Company Workspace, Administration mode, navigate to Standards & Libraries, User Preference Templates.

## Gateway Enhancements for Unifier

**Business processes:** Unifier 16.2's business process data can be provided for third party integration via Gateway. After deploying a business process to Gateway, it is available as a new object in Unifier Provider, which now supports dynamic data mapping from Gateway. Map the newly created objects in Unifier Provider:

- To an existing pre-defined object in Gateway (per release 16.1).
- To a new object created in Gateway (16.2 enhancement).

After object mapping is completed in Gateway, it can then be used for creating data mapping templates and business flows in Gateway. In addition, in Unifier 16.2:

- Text, Project/Shell Creation and Resource Types business processes are now available for third-party integration via Gateway.
- Line item business processes create two objects in Gateway – one to sync record information and the other to sync line item information.
- In earlier releases, the request to import/export data from Unifier fails in case of an issue with a record. In this release, during an import or export request, processing of records will continue for those cases where there are **no issues**.

**User-defined reports:** Project- and company-level user-defined reports that have been enabled for integration can now be deployed to Gateway for exchange of report data with a third-party application. In Gateway, new UDR objects are created under Unifier's Data Dictionary. Names of UDR objects must be unique in relation to other Unifier objects, including UDR objects.

**Unifier REST services:** New services are now available through Gateway integration:

- Get SOV
- Get Column Data
- Update Column Data
- Get Shell List
- Get Exchange Rate
- Update Exchange Rate

The corresponding default objects are created in Gateway to support the REST services.

**Document exchange support through Gateway:** Business process integration supports adding record and line item attachments when records are created in Unifier. It also supports the export of these attachments to a third-party application receiving the records via Gateway. The documents are then deleted in Gateway after the export. No additional configurations are required for sending and receiving attachments; the exchange occurs by default. Note: If the receiving third-party application does not support documents integration, the flow will still be completed without transferring the documents.





## Business Process Creation and Updates

In Unifier 16.2, regardless of the mode of record creation and update, the processing logic for the following is the same as the manual method:

- Query Based Data Element (QBDE)
- Query filters set for data pickers

In prior versions of Unifier, the processing logic varied when records are created using Webservices, CSV, etc. Certain validations and design settings are not honored in these methods.

**Query Based Data Element:** A QBDE in Unifier allows users to view data from other business processes, sheets, cash flow, etc in the upper form or detail form of a business process. QBDEs are based on the data definition of “SYS Numeric Query Based”. The query for these elements is set in uDesigner.

In addition to the Web Interface (Unifier Application in the browser), the evaluation of QBDE are now done in the following areas:

- CSV import for record creation
- CSV import for line item creation
- Webservice methods for record creation along with line items
- Webservice methods for line item creation
- Webservice methods for record updates
- Bulk Edit
- Bulk Update
- Creating BP records using BP Template

**Data picker data elements:** Currently, queries for data pickers such as BP Data Picker, Shell Data Picker, User Data Picker, CM Data Picker, and Role Data Picker are ignored when records are created using means other than manual. Starting with Unifier 16.2, the evaluation of data picker query conditions will also be done in the following areas:

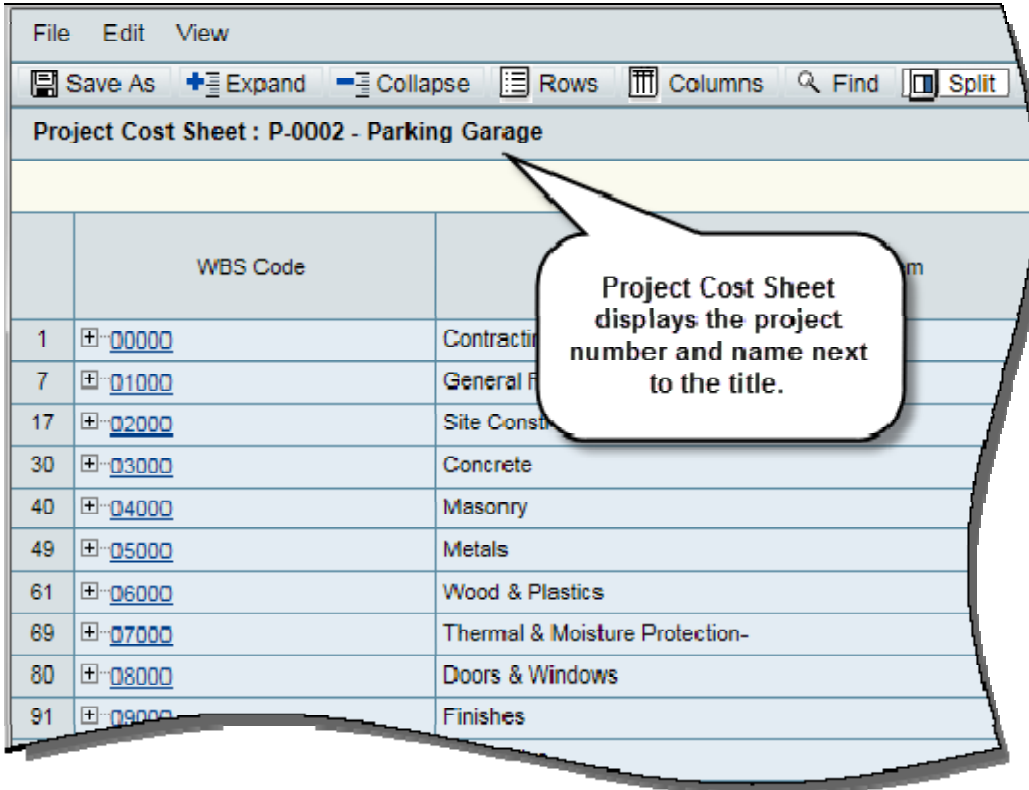
- CSV import for record creation
- CSV import for line item creation
- Webservice methods for record creation along with line items
- Webservice methods for line item creation
- Webservice methods for record updates

**Audit log:** All updates will be audited regardless of the method used.

# Additional Enhancements

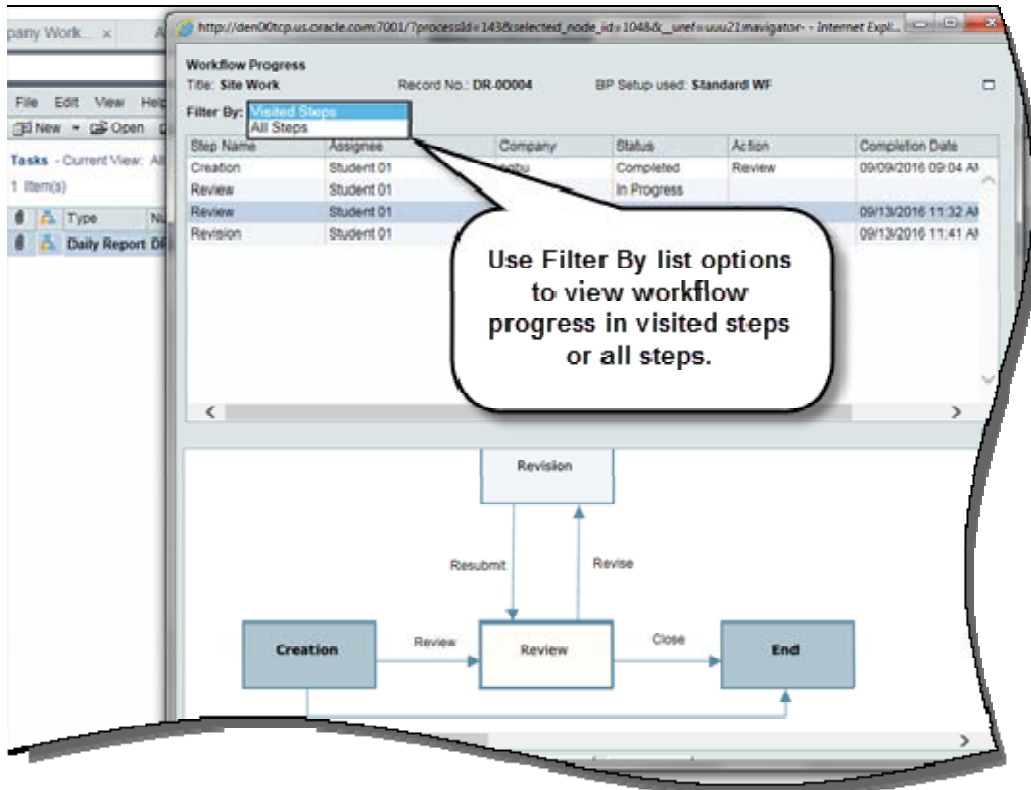
## Project Information Block in Project Cost Sheet

Project Cost Sheet now displays the project number and name next to the title.



**Filter by Steps Visited in Workflow Progress**

Starting from Unifier 16.2, a Filter By list is provided with two options: Visited Steps (default) and All Steps. Select Visited Steps to view only the visited steps, including the current step along with its tasks. Select All Steps to view all the steps in the workflow. This is particularly useful when you want a filtered view of the workflow progress in business processes with long workflows.



**Ability to Define Query-Based Tabs in Business Processes Using Space Data Pickers**

In Unifier 16.2, there is an enhancement on Space QBTs on business processes. In addition to the existing support for Space pickers (uuu\_phy\_space\_picker data element), Space data pickers are also supported for defining QBTs. Space attributes are the reference objects.