

ENOVIA Costing and Analytics Foundation

User's Guide

3DEXPERIENCE R2017x



| The 3DEXPERIENCE Company

Copyright and Trademark Information

3DEXPERIENCE Platform is based on the V6 Architecture © 2007-2017 Dassault Systèmes.

The **3DEXPERIENCE** Platform for 2017x is protected by certain patents, trademarks, copyrights, and other restricted rights, the full list of which is available at the 3DS support site: <http://help.3ds.com/>.

Certain portions of the **3DEXPERIENCE** Platform R2017x contain elements subject to copyright owned by third party, the full list of which is also available at the 3DS support site mentioned above.

You will require an account with support in order to view this page. From the support page, select your desired product version and language to launch the appropriate help. Select **Legal Notices** from left frame. This displays the full list of patents, trademarks and copyrights for this product.

Any copyrights not listed belong to their respective copyrights owners.

Table of Contents

Chapter 1 About ENOVIA Costing and Analytics Foundation	6
Application Overview	7
Cost Analytics Roles.....	7
Conventions used in this Guide	8
Getting the Most Out of This Guide	8
Chapter 2 Getting Started with ENOVIA Costing and Analytics Foundation	10
About using ENOVIA Costing and Analytics Foundation	11
Chapter 3 Searching	12
About Searches	13
Selecting from Lists	13
Searching for Parts.....	14
Searching for Change.....	14
Searching for Suppliers and Supplier DUNS Number.....	15
Chapter 4 Working With Cost Templates	16
About Cost Templates.....	17
Managing Cost Templates.....	17
Viewing details for a Cost Template	18
Creating a Cost Template.....	20
Delete Cost Template Revision.....	22
Editing Details for a Cost Template	29
To Change Owners of Costs and Cost Reports	32

Chapter 5 Cost Management	35
Managing Costs.....	36
Viewing Details for a Cost.....	37
Creating a New Cost.....	42
Editing Details of a Cost	45
Revising a Cost.....	46
Deleting a Cost	46
List Parts with Key Cost Criteria.....	47
Import Mass Part Costs.....	53
Chapter 6 MEP Cost Management	59
Viewing an MEP Part Cost.....	60
Creating an MEP Part Cost.....	60
Editing an MEP Part Cost.....	63
Import Mass MEP Part Costs	63
Chapter 7 Working with BOM Cost Reports	68
About BOM Cost Reports	69
Managing BOM Cost Rollup Reports	69
Viewing BOM Cost Reports.....	70
Creating BOM Cost Reports.....	85
Comparing Two BOM Cost Rollup reports.....	87
Comparing Two BOM Cost Rollup reports across Parts.....	88
Comparing Two Multi Level AVL reports	89
Comparing Two Multi Level AVL reports across Parts	90
Cost Change History Report.....	91
Cost Change History Graph in Kava Chart	92

Chapter 8 BOM Management for Cost Analyst.....	94
Import and Create BOM	95
Creating a Cost Part	97
Creating Import Files.....	98
Importing and Creating BOM.....	99
Exporting Mass Part Cost.....	101
Chapter 9 CR Costing.....	103
Getting Started with CR Costing	104
About CR Costing.....	105
Assigning a Responsible Cost Analyst.....	105
Changing the Responsible Cost Analyst.....	106
Related Cost PowerView.....	107
Set Costing Option	107
Listing Affected Parts	109
Chapter 10 Related Cost Management	110
Viewing Intermediate Cost.....	111
Viewing Summary Cost.....	111
Creating an Intermediate Cost.....	112
Selecting Affected Part to Cost.....	116
Mass Create Intermediate Cost for Selected.....	119
Listing Intermediate Costs on Part-Cost Summary Page.....	120
Creating CR Summary Cost.....	120
Editing Intermediate Cost.....	121
Editing Summary Cost.....	123
Changing Location Type.....	125
Changing Include Children in Rollup.....	126
Exporting Affected Parts to Cost.....	126
Importing Intermediate Costs.....	127
Deleting Selected Intermediate Cost.....	131
Deleting Selected Summary Cost.....	132
Processing Intermediate Costs	132

Chapter 11 CR Cost Impact Report.....	136
Generating a CR Cost Impact Report	137
Viewing a CR Cost Impact Report.....	138
Setting an Annualized Volume.....	141
Excluding Removed Parts.....	141
Setting an Approval Report	142
Exporting a CR Cost Impact Report.....	142
Deleting a CR Cost Impact Report	143
Chapter 12 Currency Exchange Rates	144
Viewing Currency Exchange Rates	145
Adding a Currency Exchange Rate.....	145
Deleting a Currency Exchange Rate.....	146
Editing a Currency Exchange Rate.....	146
Chapter 13 Extending Cost elements to have Labor Rate	148
Creating a New Location	149
Editing a Location.....	150
Glossary	151

About ENOVIA Costing and Analytics Foundation

Welcome to the *ENOVIA Costing and Analytics Foundation User's Guide*. This guide is intended for users who need to quickly become familiar with the ENOVIA Costing and Analytics Foundation.

In this section:

- [Application Overview](#)
- [Cost Analytics Roles](#)
- [Conventions used in this Guide](#)
- [Getting the Most Out of This Guide](#)

Application Overview

In designing and building a product, manufacturing companies want to manage their costs by estimating, tracking, and managing product costs very early in a product's lifecycle. Because a substantial portion of a product's cost is dictated by design decisions, companies can use a *design-to-cost* philosophy to manage a product's costs from inception. Design engineers can associate cost information with each part in a BOM/EBOM, such as Target Costs, Estimated Costs, Engineering Costs and Internal Manufacturing Costs, process to resolve any product cost issues early in the design cycle, and evaluate parts that are critical for profitability.

Cost Analytics Roles

If you are a:	Roles
Cost Analyst Administrator	<ul style="list-style-type: none">• Creating, Modifying and Deleting the Cost Templates• Changing the Owners of the Costs and Cost Reports.
Cost Analyst	<ul style="list-style-type: none">• Creating Cost's for the Part created• Creating Cost Part• Creating multiple Cost's for a Part by Importing through an Excel sheet.• Creating Cost for an MEP Part's through Importing through an Excel sheet• Importing and creating Sub-parts for a Part• Listing the Cost, No cost or All Cost objects of a Part and exporting it.• Generating the BOM Cost rollup report, Consolidated BOM Cost rollup Report and Multilevel AVL Report for a Cost of a Part and exporting it.• Comparing the Reports generated.• Viewing the Cost Templates
Design Engineer or Senior Design Engineer	<ul style="list-style-type: none">• Creating an EC part, a CR and a CO

Conventions used in this Guide

In this guide and within the application, the following terms have specific meanings that need to be distinguished:

- Remove/Delete—The term “delete” is used to refer to an action that deletes an item from the database, which means the item is no longer available for viewing or selection. The term “remove” is used to refer to an action that disconnects one item from another. The disconnected item is still in the database and is still available for connecting to another item and for viewing.
- Add/Create—Similar to the remove/delete distinction. ”add” - means to connect or to associate an existing item to another item and “Create” - means to add an item to the database.

Getting the Most Out of This Guide

This *ENOVIA Costing and Analytics Foundation User’s Guide* is intended to help you use ENOVIA Costing and Analytics Foundation to perform tasks appropriate to your designated role. It is intended to help cost analysts, design engineers, and CR coordinators manage costs for a product. Here are some suggestions for using this guide:

Chapter 2 - Getting Started with

This chapter contains background information about items used throughout ENOVIA Costing and Analytics Foundation.

Chapter 3 - Searching

This chapter shows how to use the search tools to locate items you need to work with.

Chapter 4 - Working With Cost Templates

This chapter describes the tasks that cost administrators can perform when working with Cost Templates.

Chapter 5 - Cost Management

This chapter deals with Cost Management which includes cost creation, editing, cost activation, mass import of costs, and other functionality such as search that can be performed on part cost.

Chapter 6 - MEP Cost Management

This chapter includes the MEP cost creation, editing and importing MEP Cost for multiple parts.

Chapter 7 - Working with BOM Cost Reports

This section deals with the generation of BOM Cost Rollup report, Multilevel AVL Report and Consolidated BOM Cost roll-up Report. It also includes the comparison of BOM Cost Rollup report.

Chapter 8 - BOM Management for Cost Analyst

This chapter deals with creation of multiple subparts and Costs by importing through an excel sheet.

Chapter 9 - CR Costing

This chapter tells you about the CR.

Chapter 10 - Related Cost Management

This chapter includes Intermediate/Summary Cost creation, editing, deleting, exporting affected parts to cost, mass editing, mass import of Intermediate Costs and other functionality such as process Intermediate Costs.

Chapter 11 - CR Cost Impact Report

This chapter includes the creation a CR Cost Impact report to estimate costs-of-change during a CR/CO process.

Chapter 12 - Currency Exchange Rates

This section includes the creation, viewing, and editing of currency exchange rates.

Chapter 13 - Extending Cost Elements to have Labour Rate

This section describes Item Labor Cost which is calculated from Labor Rate for the location selected and Item Labor Hours that is entered.

2

Getting Started with ENOVIA Costing and Analytics Foundation

This section describes how to get started with ENOVIA Costing and Analytics Foundation.

In this section:

- [About using ENOVIA Costing and Analytics Foundation](#)

About using ENOVIA Costing and Analytics Foundation

You use ENOVIA Costing and Analytics Foundation depending on your role, whether you are a Cost Analyst, a Cost Analyst Administrator, or a Design Engineer.

This table lists how to use the product depending on your role:

If you are a:	Start by performing these tasks and referring to these sections:
Cost Analyst Administrator	<ul style="list-style-type: none">• <u>Managing Cost Templates</u>
Cost Analyst	<ul style="list-style-type: none">• <u>Creating a Cost Part</u>• <u>Import Mass Part Costs</u>• <u>Import and Create BOM</u>• <u>List Parts with Key Cost Criteria</u>• <u>Managing BOM Cost Rollup Reports</u>
Design Engineer or Senior Design Engineer	<ul style="list-style-type: none">• <u>List Parts with Key Cost Criteria</u>

Searching

You can search for objects using the  (Search) menu on the global toolbar. Add Existing menus on pages, or buttons in dialog boxes to search for objects to insert into the field. When searching for objects, you can optimize query performance by providing criteria in as many fields as possible; limiting the use of wildcards for type, name, and revision; and specifying a search vault, whenever possible.

In this section:

- [About Searches](#)
- [Selecting from Lists](#)
- [Searching for Parts](#)
- [Searching for Change](#)
- [Searching for Suppliers and Supplier DUNS Number](#)

About Searches

Searches can be initiated from many places within ENOVIA Cost Analytics.

See the section listed below for details on the type you're searching for.

If searching for:

- **Parts**, see [Searching for Parts](#)
- **Change**, see [Searching for Change](#)
- **Suppliers and Supplier DUNS Number**, see [Searching for Suppliers and Supplier DUNS Number](#)

Selecting from Lists

When entering details in dialog boxes, some fields show the  button to help you enter appropriate values for the field. Sometimes, this button opens a Find dialog so you can enter search criteria (see the section for searching for that particular item).

A select list may show when completing a dialog box or adding an item to a list, such as:

- Selecting a Type while creating a new Cost Object, a CR and a CO.
- Selecting a Supplier and Supplier DUNS Number while creating a New Cost for a Part.
- Selecting a Cost type while Listing Parts with Key Cost Criteria, Importing Mass Part Cost and generating reports using Update Totals.
- Selecting a Vault while Comparing reports Across Parts, creating a CR, creating a CO and Comparing reports Across Parts View.
- Selecting Change responsibility, Responsible Design Engineer, Reported Against, Distribution List, Reviewer List and Responsible Cost Analyst while creating a CR.
- Selecting a Part Number while creating Intermediate cost.
- Selecting Location Name while creating Cost CR by Summary.
- Selecting Reported Against, Design Responsibility, Responsible Manufacturing Engineer, Responsible Design Engineer, Reviewers List, Distribution List, Approval List while creating a CO.

Before you begin:

Open the dialog page where you need to select field values.

1. Click for the field.

The list of items is displayed if you have access to and their availability for this operation.

2. Choose the item or items you want to select. If you can select more than one item, the page shows a check box next to each item, which allows you select as many as you want. If you can select only one item, the page shows a button next to each item.
 3. Click **Done**.
-

Searching for Parts

Cost Analyst/Cost Analyst Admin/Design Engineer/Sr. Design Engineer can search for parts. You only need to enter criteria for those fields pertinent to what you are searching for. For any field that you do not want to enter specific criteria, use the * for the field value.

Entering Search Criteria: Parts

1. From the global toolbar, click  > **Search** and select Parts in the Type field.

Or

Click  > Parts from the global toolbar.

2. Part Search Page will open. You can specify the remaining fields in order to refine your search.
-

Searching for Change

Cost Analyst/Cost Analyst Admin/Design Engineer/Sr. Design Engineer can search for CR/CO. You only need to enter criteria for those fields pertinent to what you are searching for. For any field that you do not want to enter specific criteria, use the * for the field value.

Entering Search Criteria: Change

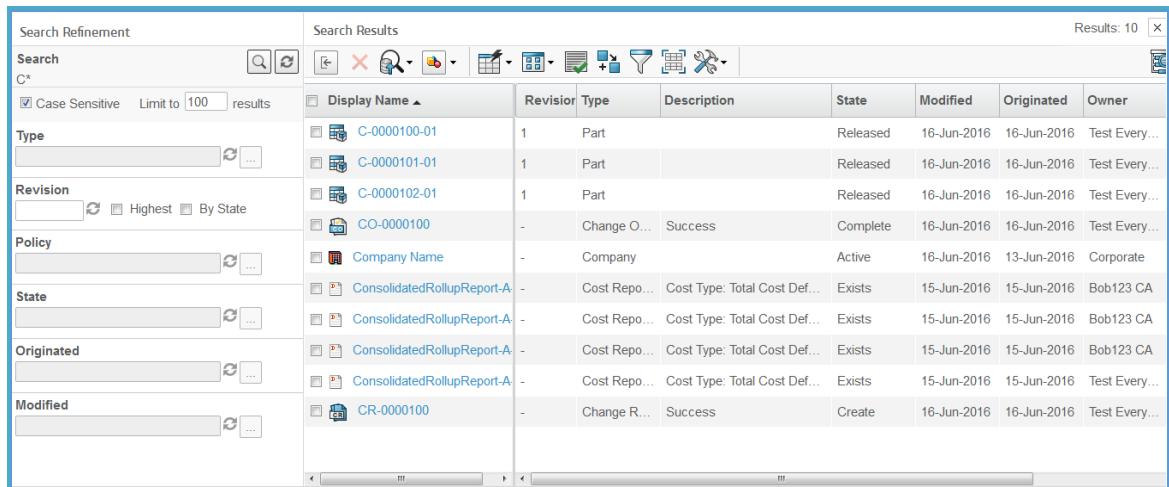
1. From the global toolbar, click  > **Search** and select CO/CR in the Type field.

Or

Click  > **Change** from the global toolbar.

2. A Search Page will open which will list all the CR's and CO's displayed. You can specify the remaining fields in order to refine your search.

- Click on **Search**. This will list all the CO's and CR's.



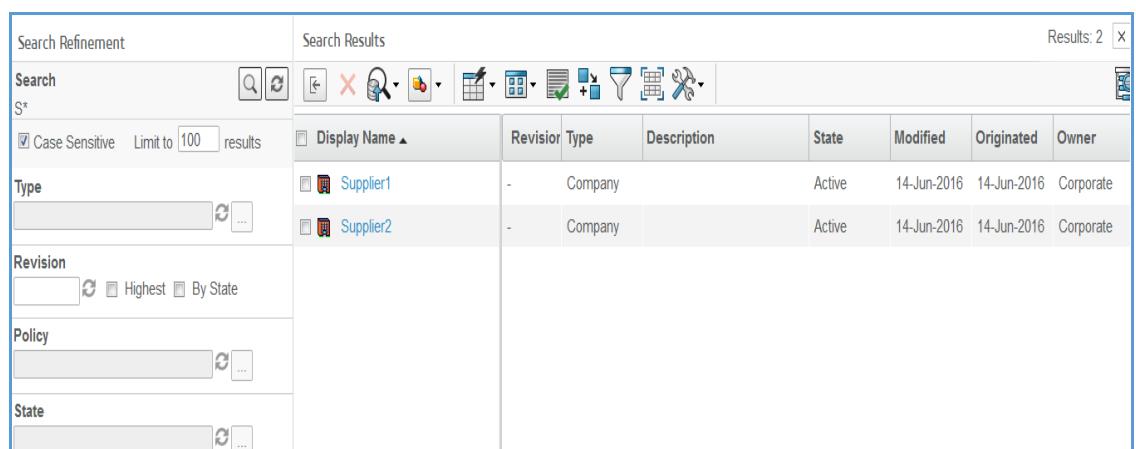
The screenshot shows a search interface with a left sidebar for 'Search Refinement' and a right panel for 'Search Results'. The refinement sidebar includes fields for Search (C*), Type, Revision, Policy, State, Originated, and Modified. The results table has columns for Display Name, Revision, Type, Description, State, Modified, Originated, and Owner. The results list includes various entries like 'C-0000100-01', 'CO-0000100', and 'CR-0000100' with their respective details.

Search Refinement		Search Results						
Search	C*	Revised	Type	Description	State	Modified	Originated	Owner
<input checked="" type="checkbox"/> Case Sensitive	Limit to 100 results							
Type								
Revision								
Policy								
State								
Originated								
Modified								
<hr/>								
Display Name ▲								
C-0000100-01	1	Part		Released	16-Jun-2016	16-Jun-2016	Test Every...	
C-0000101-01	1	Part		Released	16-Jun-2016	16-Jun-2016	Test Every...	
C-0000102-01	1	Part		Released	16-Jun-2016	16-Jun-2016	Test Every...	
CO-0000100	-	Change O...	Success	Complete	16-Jun-2016	16-Jun-2016	Test Every...	
Company Name	-	Company		Active	16-Jun-2016	13-Jun-2016	Corporate	
ConsolidatedRollupReport-A	-	Cost Repo...	Cost Type: Total Cost Def...	Exists	15-Jun-2016	15-Jun-2016	Bob123 CA	
ConsolidatedRollupReport-A	-	Cost Repo...	Cost Type: Total Cost Def...	Exists	15-Jun-2016	15-Jun-2016	Bob123 CA	
ConsolidatedRollupReport-A	-	Cost Repo...	Cost Type: Total Cost Def...	Exists	15-Jun-2016	15-Jun-2016	Bob123 CA	
ConsolidatedRollupReport-A	-	Cost Repo...	Cost Type: Total Cost Def...	Exists	15-Jun-2016	15-Jun-2016	Test Every...	
CR-0000100	-	Change R...	Success	Create	16-Jun-2016	16-Jun-2016	Test Every...	

Searching for Suppliers and Supplier DUNS Number

This search facility enables you to find **Suppliers** with given **Supplier Name** or **Supplier DUNS Number**.

- To search for a specific **Supplier** you can provide a **Name**. Names can include wildcard characters, for example, 001* or *-Version 8. The default is *, which includes all names.
- Similarly you can search for a **Supplier** with specific **DUNS** number.
- Click **Search**.
- The Search results matching the search criteria is then displayed
- Select a **Supplier** and Click **Submit**.



The screenshot shows a search interface with a left sidebar for 'Search Refinement' and a right panel for 'Search Results'. The refinement sidebar includes fields for Search (S*), Type, Revision, Policy, and State. The results table has columns for Display Name, Revision, Type, Description, State, Modified, Originated, and Owner. The results list includes entries for 'Supplier1' and 'Supplier2' with their respective details.

Search Refinement		Search Results						
Search	S*	Revised	Type	Description	State	Modified	Originated	Owner
<input checked="" type="checkbox"/> Case Sensitive	Limit to 100 results							
Type								
Revision								
Policy								
State								
<hr/>								
Display Name ▲								
Supplier1	-	Company		Active	14-Jun-2016	14-Jun-2016	Corporate	
Supplier2	-	Company		Active	14-Jun-2016	14-Jun-2016	Corporate	

Working With Cost Templates

Cost Analyst Administrators work with Cost Templates.

In this section:

- [About Cost Templates](#)
- [Managing Cost Templates](#)
- [Viewing details for a Cost Template](#)
- [Creating a Cost Template](#)
- [Delete Cost Template Revision](#)
- [Editing Details for a Cost Template](#)
- [To Change Owners of Costs and Cost Reports](#)

About Cost Templates

The **Cost Template** is used to configure the various parameters that are used while creating the **Cost** objects and calculation of **Rollups**.

These parameters include –

- The different types of **Costs**
- The setting if an attribute should be **mandatory** or **optional**.
- The **Item Level Formula** and **Rollup Formula** for the attribute
- **Category** for each attribute specifying if it's a **Location** level attribute, **Quote** level attribute, **Item** level attribute, **Target** level attribute or **Total** level attribute.

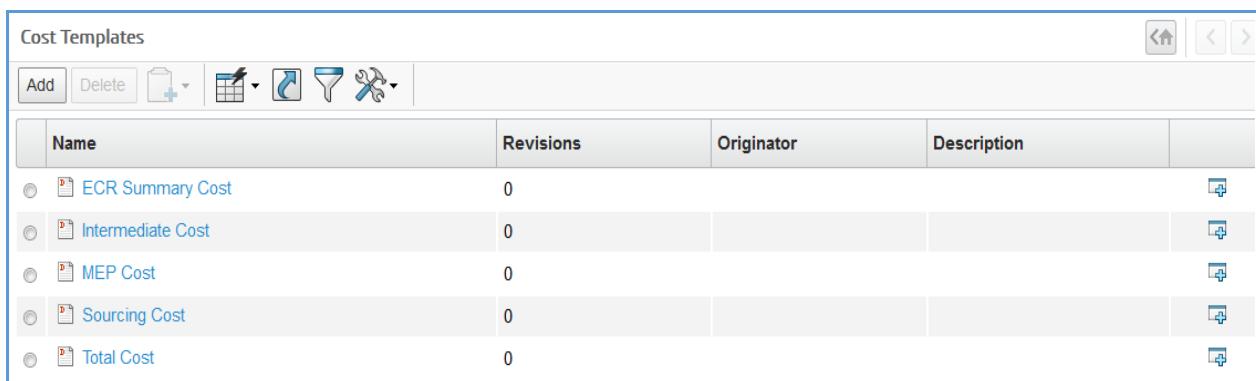
The **Cost Administrator** can edit and modify the settings by editing the **Cost Template**. The **Cost Administrator** can create and manage the **Cost Template** revisions.

The **Cost Template** stores all the information required for calculating the rollups for **Parts**.

Managing Cost Templates

The Cost Administrators and Cost Analysts can list all Cost Templates for their company. The list shows the latest revisions of each template; use a template's Revisions category to view prior revisions.

From the global toolbar, click  > **People and Organizations** > **View Cost Templates**.



Name	Revisions	Originator	Description
ECR Summary Cost	0		
Intermediate Cost	0		
MEP Cost	0		
Sourcing Cost	0		
Total Cost	0		

For each template, this page lists these details:

- **Name.** The name of the template. Click the name to see more details. See [Viewing details for a Cost Template](#)
- **Revision.** The revision level of the template. This page lists only the highest revision level.

- **Originator.** The person who created the template.
 - **Description.** A brief description of this template.
- Opens the Properties page for the Cost Template in a new window.
See [Viewing details for a Cost Template](#)

1. Use the page toolbar to work with Cost Templates:

- **Add:** Creates a new Cost Template. [Creating a Cost Template](#)
- **Delete.** Deletes the latest revision of the Cost Template.

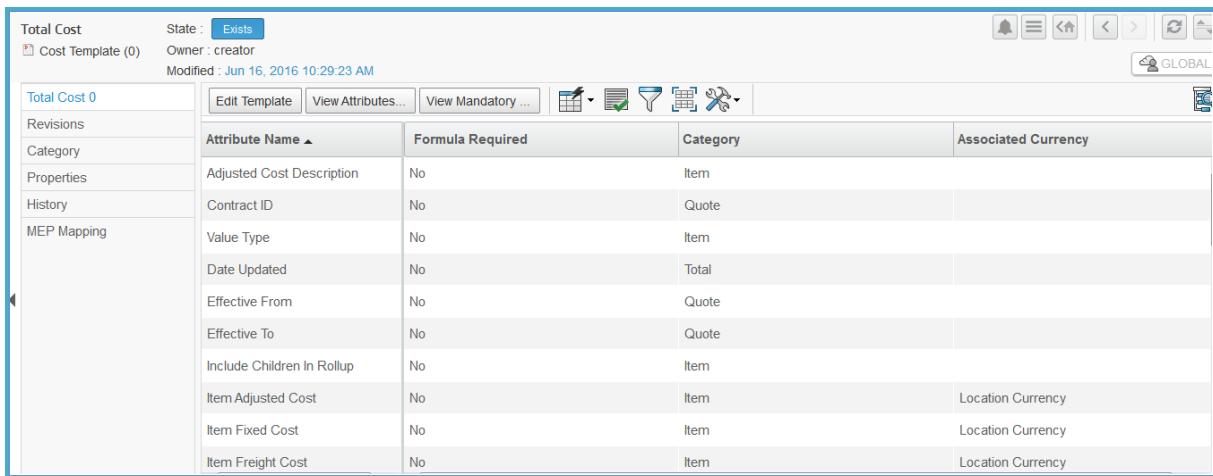
Viewing details for a Cost Template

The Cost Administrators and Cost Analysts can view details about a Cost.

1. To view the details, click on the Name of the **Cost Template**.
2. Click on **Edit Template**.
3. The Edit Template Page opens the selected template for editing. See [Editing Details for a Cost Template](#)
 - **View Mandatory Attributes**
 - **View Mandatory Attributes with Formula**

View Mandatory Attributes

1. From the page toolbar, Click on **View Mandatory Attributes**.



The screenshot shows a software interface for managing cost templates. At the top, there's a header bar with various icons and a 'GLOBAL' button. Below the header, a toolbar has buttons for 'Edit Template', 'View Attributes...', and 'View Mandatory ...'. The main area is a table titled 'Total Cost' with a row for 'Cost Template (0)'. The table has columns for 'Attribute Name', 'Formula Required', 'Category', and 'Associated Currency'. There are 10 rows of data in the table, each corresponding to a different cost attribute like 'Adjusted Cost Description', 'Contract ID', etc. The 'Category' column shows values like 'Item', 'Quote', 'Total', and 'Location Currency'.

Total Cost	State : Exists	Owner : creator	Modified : Jun 16, 2016 10:29:23 AM
Edit Template View Attributes... View Mandatory ... 			
Total Cost 0			
Revisions			
Category	Attribute Name ▾	Formula Required	Category
Properties	Adjusted Cost Description	No	Item
History	Contract ID	No	Quote
MEP Mapping	Value Type	No	Item
	Date Updated	No	Total
	Effective From	No	Quote
	Effective To	No	Quote
	Include Children In Rollup	No	Item
	Item Adjusted Cost	No	Item
	Item Fixed Cost	No	Item
	Item Freight Cost	No	Item

2. The Mandatory Attributes of the Cost Template are displayed.

Mandatory Attributes	
Range Value	Selected Mandatory Attributes
Buy	Location Name Location Type Location Currency Production Make Buy Code Cost Value Type
Make	Location Name Location Type Location Currency Production Make Buy Code Cost Value Type
Unassigned	Production Make Buy Code Location Name Location Type Location Currency

View Attributes with Formula

- From the page toolbar, click **View Attributes with Formula**
- The Attributes with formulas of the Cost type are displayed.

Attributes with Formula	
Attribute Name ▲	Formula Required
Item Labor Cost	Labor Rate * Item Labor Hours + $\Sigma()$
Total Adjusted Cost	Item Adjusted Cost + Σ (Total Adjusted Cost * Quantity)
Total Cost	Total Cost Of Material + Total Freight Cost + Total Fixed Cost + Total Variable Cost + Total Adjusted Cost + Total Labor Cost + $\Sigma()$
Total Fixed Cost	Item Fixed Cost + Σ (Total Fixed Cost * Quantity)
Total Freight Cost	Item Freight Cost + Σ (Total Freight Cost * Quantity)
Total Labor Cost	Item Labor Cost + Σ (Total Labor Cost * Quantity)
Total Labor Hours	Item Labor Hours + Σ (Total Labor Hours * Quantity)
Total Quoted Material Cost	Item Material Cost + Σ (Total Cost Of Material * Quantity)
Total Target Cost	Item Target Cost + Σ (Total Target Cost * Quantity)
Total Variable Cost	Item Variable Cost + Σ (Total Variable Cost * Quantity)

Creating a Cost Template

To List the Cost Templates; see [Managing Cost Templates](#)

From the page toolbar, click **Add**

1. Select the Cost Type and Mandatory Attribute Identifier from Drop-Down list. For each Mandatory Attribute Identifier, range values are displayed. If the Cost Type has some location level attributes and the Cost Type is related to Location then these attributes will be listed in all the ranges by default.

Range Value	Selected Mandatory Attributes	Add/Remove Attribute
Euro	Target Cost Currency	[...]
Pound	Target Cost Currency	[...]
USD	Target Cost Currency	[...]

2. Select the Mandatory Attributes for range values from Add/Remove Attribute ellipse. If the Cost Type, for which the template is to be created, have some location level attributes and the Cost Type is related to Location then these attributes will be default selected and disabled. Select the attributes and click on **Done**.

Note: - Total Level attributes are not present in **Select Attributes** page as they are derived attributes and cannot be edited manually. Select Mandatory Attribute Identifier as Default, when mandatory attributes are to be specified but the identifier does not have any range value to attach with.

3. Click **Next** to enter Formula Required, Category and Associated Currency for listed attributes.

Step 2 of 3: Create Cost Template



Fields in red italics are required.

Refer to context-sensitive help for details on category.

Attributes	Formula Required	Category	Associated Currency
Tooling Currency		Item	
Tooling Number		Item	
Total Cost Currency		Item	
Production Make Buy Code		Item	
Tooling Cost	No	Item	--
Total Cost	Yes	Item	--
Tooling CAR Number		Item	
Tooling Capital		Item	

4. Click **Next** to enter formula for numeric attributes. Set/edit the formula for each listed attribute by clicking on **Edit** icon

Step 3 of 3: Create Cost Template



Fields in red italics are required.

Cost Attributes	Formula	Edit
Total Cost	Tooling Spent Y1 + Tooling Spent Y2 + Tooling Spent Y3 + $\Sigma()$	
Total Target Cost	Item Target Cost * Quantity + $\Sigma()$	

Previous **Done** **Cancel**

5. Click **Done** to create the New **Cost Template**.

Delete Cost Template Revision

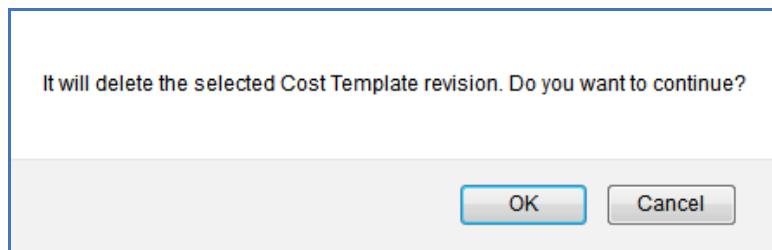
The Cost Administrator can delete the latest revision of **Cost Templates** for any Cost Type.

To delete the latest revision of Cost Templates

1. From the page toolbar, click on **Delete**.

Name	Revisions	Originator	Description	
ECR Summary Cost	0			
Intermediate Cost	0			
MEP Cost	0			
Sourcing Cost	0			
Total Cost	0			

2. Select the Cost Type and Click on **Delete**. Warning Message will be acknowledged to you “It will delete the selected Cost Templates(s) revision. Do you want to continue?”



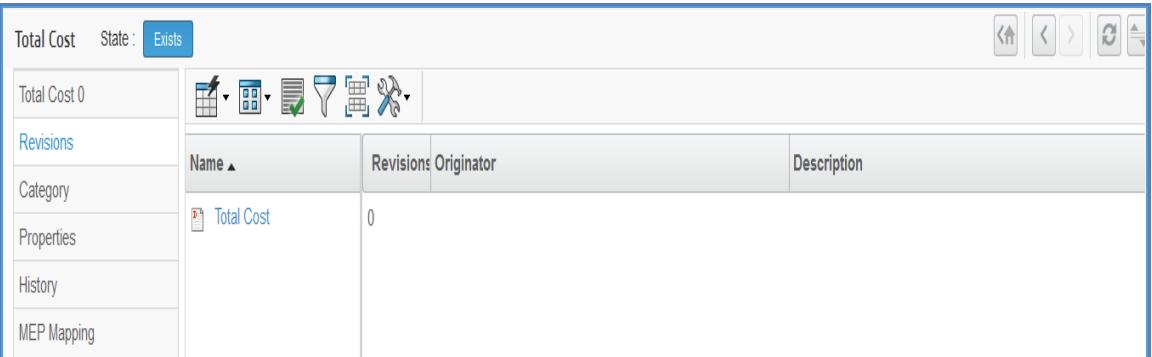
3. Initial revision of **Cost Template** will not be deleted and Warning Message will be acknowledged to you as “Cannot delete revision 0 of Cost Template for Intermediate Cost”.

Revision

Cost Administrator can able to view all revisions of respective **Cost Template**.

To view Cost Template Revision

1. Click on **Revision** from the page toolbar.



Name	Revisions	Originator	Description
Total Cost	0		

2. On click of **Cost Template** name or click , the information of respective revision is shown.

Category

Cost Administrator can view Categories defined for Cost Template. Category List can be divided into two sub-types

- **System Mandatory** –
This Category List is mandatory for Cost Template and Cost Administrator cannot remove it.
- **Non-System Mandatory** –
This Category List is not mandatory for Cost Template and Cost Administrator can remove it.

To view Cost Template Categories

1. From the page toolbar click on **Category**

	Category
<input type="checkbox"/>	Select All
<input type="checkbox"/>	Location
<input type="checkbox"/>	Total
<input type="checkbox"/>	Target
<input type="checkbox"/>	Item
<input type="checkbox"/>	Quote

Add New Category:

Cost Administrator can add new Non-System Mandatory Category to a Cost Template.

To add new Category in Cost Template

- From the page toolbar, click > **Add**

Click the button to select a different value for Associated Currency. Refer to [Selecting from Lists](#).

- The Currency Attributes that are selected will be available on the Edit Cost Template page in the Associated Currency List.

Add Category	
Fields in red italics are required	
Name	Moulding Cost
Associated Currency	Cost Value Type
<input type="button" value="Done"/> <input type="button" value="Cancel"/>	

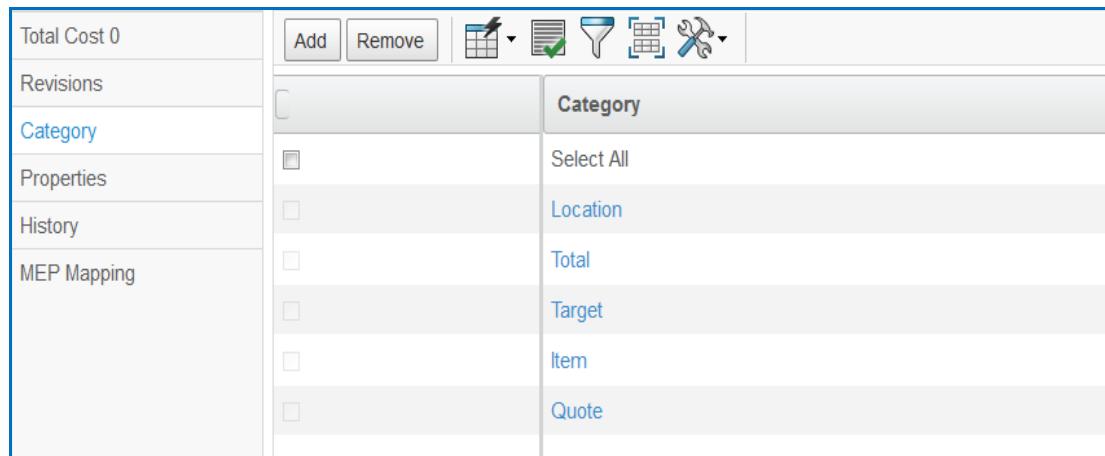
- Click **Done** from Select Currency page. Selected Currencies will be populated on Associated Currency field of Add Category page.
- Click **Done** from Add Category page to create a new Category for Cost Template.

Remove Category

Cost Administrator can remove Non-System Mandatory Category from **Cost Template**.

To remove new Category in Cost Template

1. From the page toolbar, click **Remove**.



The screenshot shows the 'Category' section of the Cost Template page. On the left, there's a sidebar with links: Total Cost 0, Revisions, Category (which is selected), Properties, History, and MEP Mapping. The main area has a toolbar with 'Add' and 'Remove' buttons, followed by several icons. A table lists categories: Select All, Location, Total, Target, Item, and Quote. Each category row has a checkbox in the first column.

	Category
<input type="checkbox"/>	Select All
<input type="checkbox"/>	Location
<input type="checkbox"/>	Total
<input type="checkbox"/>	Target
<input type="checkbox"/>	Item
<input type="checkbox"/>	Quote

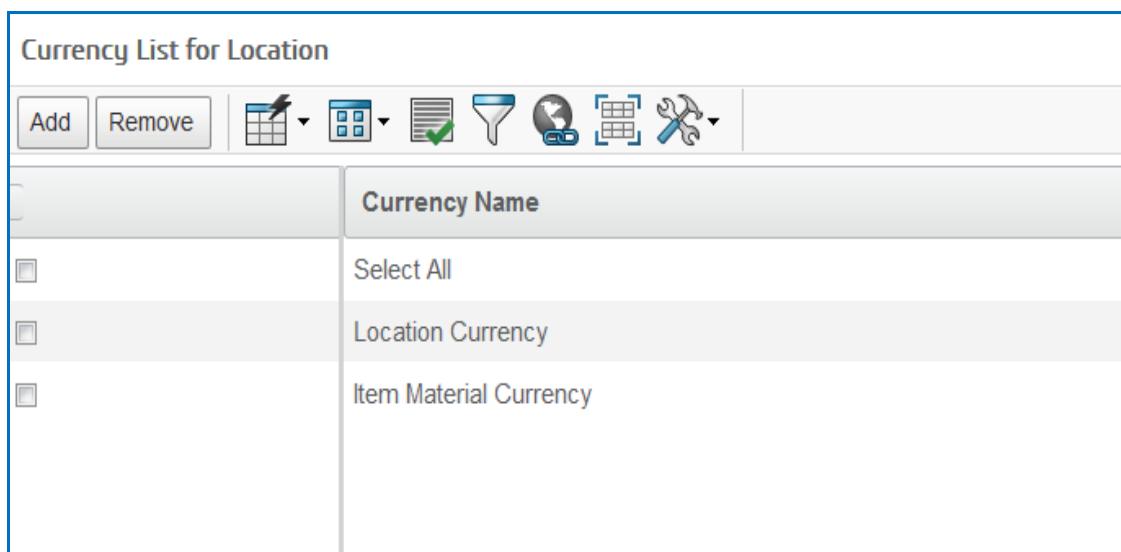
2. If the selected category(s) is/are in use then that will not be deleted and a popup message is displayed as “Can’t delete the listed category(s) tooling since it is in use”.

Currency List

Cost Administrator can add and remove the Currency List for particular Category.

To view Currency List for particular Category

1. From the page toolbar click on **Category**.
2. Click on the name of any Category to list the Currency List page of the Category selected



The screenshot shows the 'Currency List for Location' page. The title is 'Currency List for Location'. The toolbar includes 'Add' and 'Remove' buttons, along with other standard icons. A table lists currency names: Select All, Location Currency, and Item Material Currency. Each row has a checkbox in the first column.

	Currency Name
<input type="checkbox"/>	Select All
<input type="checkbox"/>	Location Currency
<input type="checkbox"/>	Item Material Currency

3. On the page toolbar, click **Add** to add a new currency to the attribute. All the non-numeric attributes will be listed for that attribute.
Select a currency for the attribute and click **Done**.

Select Currency

	Currency Name
<input type="checkbox"/>	Select All
<input type="checkbox"/>	Target Cost Currency
<input type="checkbox"/>	Include Children In Rollup
<input type="checkbox"/>	Total Cost Currency
<input type="checkbox"/>	Location Type
<input type="checkbox"/>	Cost Value Type

4. **Cost Administrator** can remove the listed Currency attributes from Action – Remove Currency List page.
5. If selected Currency is being used in Cost Template, warning message will appear as “Can’t delete the listed category(s) Location Currency since it is in use”.

Properties

Cost Administrator can view basic information of **Cost Template** from properties page

To view Properties Page

1. From page toolbar, Click on **Properties**.

Total Cost

State : Exists

Cost Template (0)

Owner : creator

Modified : Jun 16, 2016 10:29:23 AM

Name	Total Cost
Revision	0
Modified	6/16/2016 10:29:23 AM
Description	

Total Cost 0

Revisions

Category

Properties

History

MEP Mapping

2. This page displays basic properties of **Cost Template**, such as Cost Template name, revision, modify date and description.
3. Click on **Edit** link to edit the Description. Click on **Subscribe** link to subscribe to the revise event of the **Cost Template**. You will get Icon mail notifications when **Cost Administrator** updates the **Cost Template**.

MEP Mapping:

This command is visible to all Cost Templates except the template of MEP Cost type. The functionality is used to map attributes of the selected cost type to the attributes of MEP Cost type. The attribute mapping is required while generating Multilevel AVL Report. **Cost Administrator** can map those attributes with attributes of MEP Cost

To view MEP Mappings

1. From page toolbar, Click on **MEP Mapping**.

Total Cost State : Exists

The screenshot shows the 'Total Cost' page with the 'Exists' state selected. The 'MEP Mapping' section is highlighted. The table lists various cost attributes and their mappings:

Total Cost Attribute Name	MEP Cost Attribute Name
Item Adjusted Cost	Item Adjusted Cost
Item Fixed Cost	Item Fixed Cost
Item Freight Cost	Item Freight Cost
Item Labor Cost	Total Labor Cost
Item Labor Hours	Total Labor Hours
Item Material Cost	Item Material Cost
Item Target Cost	Item Fixed Cost
Item Variable Cost	Item Variable Cost
Total Adjusted Cost	Total Adjusted Cost
Total Cost	Total Cost

To edit MEP Mappings

- From page toolbar, click on the **Edit** link.

MEPMapping

The 'MEPMapping' dialog box displays the current mappings between Total Cost attributes and MEP Cost attributes. The table consists of two columns: 'Total Cost Attribute Name' and 'MEP Cost Attribute Name'.

Total Cost Attribute Name	MEP Cost Attribute Name
Item Adjusted Cost	Item Adjusted Cost
Item Fixed Cost	Item Fixed Cost
Item Freight Cost	Item Freight Cost
Item Labor Cost	Total Labor Cost
Item Labor Hours	Total Labor Hours
Item Quoted Material Cost	Total Fixed Cost
Item Target Cost	Item Fixed Cost
Item Variable Cost	Item Variable Cost
Total Adjusted Cost	Total Adjusted Cost
Total Cost	Total Cost

- Make the changes and click **Done**.

Editing Details for a Cost Template

The **Cost Administrator** can edit the latest revision of **Cost Template** of Cost Type. Whenever Cost Template is edited, a new revision of Cost Template will be created.

To edit the latest revision of Cost Template

1. On Cost Template details page, from page toolbar, click on the **Edit Template** link.

The screenshot shows the 'Cost Template' details page. At the top, there's a toolbar with icons for Home, Back, Forward, and Refresh. Below the toolbar, the page title is 'Total Cost'. There are tabs for 'State' and 'Exists'. A sidebar on the left lists sections: 'Revisions', 'Category', 'Properties', 'History', and 'MEP Mapping'. The main content area displays a table with columns: 'Attribute Name', 'Formula Required', 'Category', and 'Associated Currency'. The table rows include: 'Adjusted Cost Description' (No, Item), 'Contract ID' (No, Quote), 'Value Type' (No, Item), 'Date Updated' (No, Total), 'Effective From' (No, Quote), 'Effective To' (No, Quote), 'Include Children In Rollup' (No, Item), 'Item Adjusted Cost' (No, Item, Location Currency), and 'Item Fixed Cost' (No, Item, Location Currency).

2. Edit Mandatory Attribute Identifier and modify the mandatory attribute list.
3. Click **Next** to edit Formula Required, Category and Associated Currency for listed attributes.

The screenshot shows the 'Step 1 of 3: Edit Cost Template' dialog. It has tabs for 'Cost Type' and 'Total Cost'. Under 'Cost Type', there's a dropdown for 'Mandatory Attribute Identifier' set to 'Production Make Buy Code'. The main area is titled 'Range Value' and 'Selected Mandatory Attributes'. It shows three categories: 'Buy' (with attributes: Location Name, Location Type, Location Currency, Production Make Buy Code, Cost Value Type), 'Make' (with attributes: Location Name, Location Type, Location Currency, Production Make Buy Code, Cost Value Type), and 'Unassigned' (with attributes: Production Make Buy Code, Location Name, Location Type, Location Currency). There are 'Add/Remove Attribute' buttons and a 'Next' button at the bottom right.

Following parameters can be modified:

- **Attributes.** Lists all the attributes of the selected type.
- **Formula Required.** Specifies whether a formula is associated with the attribute. Only a numeric attribute can have a formula associated with it.

Step 2 of 3: Edit Cost Template



Fields in red italics are required.

Refer to context-sensitive help for details on category.

Attributes	Formula Required	Category	Associated Currency
Location Name		Location	
Adjusted Cost Description		Item	
Include Children In Rollup		Item	
Date Updated		Total	
Total Cost Currency		Total	
Total Cost Of Material	Yes	Total	Total Cost Currency
Total Labor Hours	Yes	Total	Total Cost Currency
Total Labor Cost	Yes	Total	Total Cost Currency

- Category.** Specifies the attribute's category: Location, Target, Item, Total, Quote and any categories defined for your system.
- Associated Currency.** The currency associated with the attribute in any currency calculations.
- Click **Next** to enter formula for numeric attributes. Cost Administrator can edit the formula for each listed attribute by clicking on Edit icon.

Step 3 of 3: Edit Cost Template



Fields in red italics are required.

Cost Attributes	Formula	Edit
Total Cost Of Material	Item Quoted Material Cost + $\Sigma(\text{Total Quoted Material Cost} * \text{Quantity})$	
Total Labor Hours	Item Labor Hours + $\Sigma(\text{Total Labor Hours} * \text{Quantity})$	
Total Labor Cost	Item Labor Cost + $\Sigma(\text{Total Labor Cost} * \text{Quantity})$	
Total Freight Cost	Item Freight Cost + $\Sigma(\text{Total Freight Cost} * \text{Quantity})$	
Total Fixed Cost	Item Fixed Cost + $\Sigma(\text{Total Fixed Cost} * \text{Quantity})$	
Total Variable Cost	Item Variable Cost + $\Sigma(\text{Total Variable Cost} * \text{Quantity})$	
Total Adjusted Cost	Item Adjusted Cost + $\Sigma(\text{Total Adjusted Cost} * \text{Quantity})$	
Total Cost	Total Quoted Material Cost + Total Freight Cost + Total Fixed Cost + Total Variable Cost + Total Adjusted Cost + Total Labor Cost + $\Sigma()$	
Total Target Cost	Item Target Cost + $\Sigma(\text{Total Target Cost} * \text{Quantity})$	
Item Labor Cost	Labor Rate * Item Labor Hours + $\Sigma()$	

4. Edit and build each individual formula by clicking on the **Edit** link provided against the Cost Attribute.
5. Both the Rollup level formula and the Item level formula can be edited.

Edit Formulae | Total Cost Of Material

Fields in red italics are required.

Item Level	Item Quoted Material Cost
	...
Roll Up Level	Total Quoted Material Cost * Quantity
	...

Done **Cancel**

6. To build individual formula, i.e. either **Item Level** or **Roll Up Level**,

Click on the provided.

Build Formula | Total Cost Of Material

Expression

Item Quoted Material Cost

[Clear](#)

Logical Expression
 Numeric Attributes

Quantity
 Total Cost Of Material
 Total Labor Hours
 Total Labor Cost

Operators <

+ - / * ** ()

Done **Cancel**

7. Build the formula by adding Attributes and Operators to the Expression box.
8. To add an attribute, choose it from the Attributes list and double-click on the attribute.
9. To add an operator to your formula, click the desired operator button. You can use the keyboard to add, edit, and delete characters as usual, and to position the cursor. For example, to subtract a number, you can enter the number using the keyboard. The application does not check for types in the attribute names so to add attributes, it's better to select attributes from

the Attributes list than to type in their names. When you click **Done**, the system checks for syntax errors.

10. The default set of operators allows you to build an arithmetic expression. To build a logical expression, check the checkbox for Logical Expression.
11. When you check the Logical Expression checkbox, the system adds the following logic operators to the set of operators.

EQ (equals to)
NE (not equal to)
LT (less than)
GT (greater than)
LE (less than or equal to)
GE (great than or equal to)
IF
THEN
ELSE
ENDIF

When you click **Done**, the system checks for syntax errors.

12. Click **Done**. The expression is listed in the **Step 3 of 3 - Edit Cost Template** page.
 13. Click **Done** from **Step 3 of 3 – Edit Cost Template** to create a new revision of **Cost Template** with user defined changes and when you click on attribute with formula link you will able to see the updated formula.
-

To Change Owners of Costs and Cost Reports

This section describes how **Cost Analyst Administrator** can change the owner of Cost Reports and Costs.

To Modify Cost Owners:

1. From the global toolbar, click  > **Engineering > Modify Cost Owners..**
2. A search page is shown. To refine your search you can specify the remaining attributes specified.
3. Click **Search** to perform the search.

Search Refinement		Search Results					Results		
Search									
<input checked="" type="checkbox"/> Case Sensitive	Limit to	100	results						
Type									
Cost Reports									
Name									
UpdateTotals*									
Revision			<input checked="" type="checkbox"/> Highest	<input type="checkbox"/> By State					
Policy									
State									
		Name	Type		Revisions	Description		Owner	
			UpdateTotals-AB300-1	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-10	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-11	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-11	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-12	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-13	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-13	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	
			UpdateTotals-AB300-15	Cost Reports	-	Cost Type: Total Cost Default, Def...		Test Everything	

- Click on the cost whose owner needs to be modified and then click on **Assign Owner**.
 - The **Assign Owner** opens a Search dialog that lists the Owners.

Search Refinement	Search Results	Results:
Search <input type="text"/> <input type="button"/> <input type="button"/>	<input type="button"/>	
<input checked="" type="checkbox"/> Case Sensitive Limit to <input type="text" value="100"/> results		
Type <input type="text" value="Person"/>	First Name ▲	Last Name
	<input type="radio"/> Bob	CostAnalyst
	<input type="radio"/> Test	Everything
		Company Name
Name <input type="text"/>		Company Name
Revision <input type="text"/>		
<input type="button"/> <input type="checkbox"/> Highest <input type="checkbox"/> By State		

- Select the owner for which you want to reassigned ownership.
 - Click **Submit**.

To Modify Cost Report Owners:

1. From the global toolbar, click  > **Engineering** > **Modify Cost Report Owners**.
 2. A search page is shown. To refine your search you can specify the remaining attributes specified.
 3. Click **Search** to perform the search.

Search Refinement		Search Results					Results
Search		<input type="button" value="Assign Owner"/>	<input type="button" value=""/>				
<input checked="" type="checkbox"/> Case Sensitive	Limit to <input type="text" value="100"/> results						
Type							
Cost Reports							
Name							
UpdateTotals*							
Revision							
	<input type="radio"/> Highest <input type="checkbox"/> By State						
Policy							
	<input type="radio"/>						
State							
	<input type="radio"/>						

4. Click on the cost Report whose owner needs to be modified and then click on **Assign Owner**.
5. The **Assign Owner** opens a Search dialog that lists the Owners.

The screenshot shows a search interface for assigning an owner. On the left, there is a 'Search Refinement' panel with fields for 'Type' (set to 'Person'), 'Name', and 'Revision'. On the right, the 'Search Results' panel displays a table with columns for 'First Name', 'Last Name', and 'Company'. Two entries are shown: 'Bob' with 'CostAnalyst' as the last name and 'Company Name' as the company, and 'Test' with 'Everything' as the last name and 'Company Name' as the company. There are also icons for search, refresh, and other actions at the top of the results panel.

First Name	Last Name	Company
Bob	CostAnalyst	Company Name
Test	Everything	Company Name

6. Select the owner for which you want to reassign ownership.
7. Click **Submit**.

Cost Management

Cost information is associated with a Part as Costs. Costs enable Cost Analysts to track and analyse cost information easily for products from the part level up. Cost Analysts will create costs for each part in a product. Cost Analysts can modify Costs and also create multiple costs using mass import facilities.

In this section:

- [Managing Costs](#)
- [Viewing Details for a Cost](#)
- [Creating a New Cost](#)
- [Editing Details of a Cost](#)
- [Revising a Cost](#)
- [Deleting a Cost](#)
- [List Parts with Key Cost Criteria](#)
- [Import Mass Part Costs](#)

Managing Costs

1. To access the Parts, use the Search tool, as described in [Searching for Parts](#)
Click on the Part name whose costs need to be viewed.
2. From the Part Properties Page click on **Categories > Cost**.
3. This page lists the Cost and contains the following columns:
 - **Name.** Click on any name in this column to view the Properties page of the  **Cost**, or Click  at the end of the row to view the **Properties** page in a new browser window.
 - **Type.** The **Cost** type.
 - **Revision.** The revision of the **Cost** object.
 - **Description.** The Description of the **Cost** object.
 - **State.** The state of the **Cost** object.
 - **Location.** Location the **Cost** object is associated with.
 - **Location Type.** The Location type i.e. **Default** or **Alternate**.
 - **Location Currency.** The **Currency** associated with the Location.
 - **Total Cost.** The Total Cost for the object.
 - **Total Cost Currency.** The Currency in which the Totals are calculated.
 - **Reference Documents.** This field shows an icon if the associated object has Reference Documents attached to it.
 - **Reference Reports.** This field shows an icon if the associated object has Reference Reports attached to it.

Action Links

<u>Creating a New Cost</u>	This link is used to Create a new Cost for a Part.
<u>Editing Details of a Cost</u>	This link is used to Edit details of a Cost
<u>Working with BOM Cost Reports</u>	This link is used to generate Reports
<u>List Parts with Key Cost Criteria</u>	This link is used to List Cost/Non-Cost/All Cost Objects of a Part.
<u>View Reference Reports of Parts</u>	This link allows you to View the reference Reports of a Part
<u>Promote</u>	This link is used to promote the selected Cost object
<u>Change Include Children in Rollup</u>	This link is used to change the value of the attribute 'Include Children in Rollup' for the selected Cost

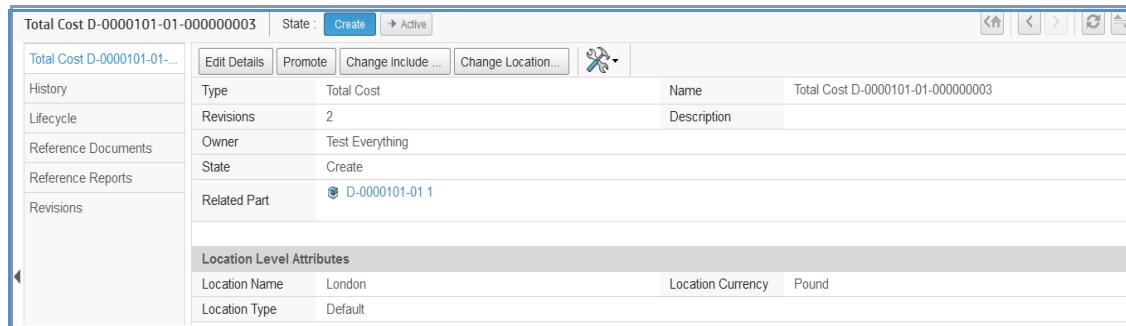
<u>Change Location Type</u>	This link is used to change the Location Type for the selected Cost
<u>Deleting a Cost</u>	This link is used to delete the selected Cost object

Viewing Details for a Cost

Click on a highlighted Cost name from anywhere in the Application to open the Cost Properties page. The **Page Toolbar** of **Cost** includes:

Note: This toolbar is specific to Total Cost type. You can define a different toolbar to a newly added Cost Type.

- **History** is the **AEF History**.(Refer to [History](#))
- **Lifecycle** is the **AEF Lifecycle**.(Refer to [Lifecycle](#))
- **Reference Document** allows you to view the documents associate with the Cost.
- **Reference Report** shows the Reference reports associated with the cost generated as a result of Rollup Calculations.
- **Revisions** lists the revisions of the cost.(Refer to [Revisions](#))



Properties

The **Properties** page of the **Cost** shows all the details of the **Cost**. It displays all the attributes and its values for the **Cost**. The following links are shown on the Properties page.

- [Edit Details](#)
- [Promote](#)
- [Change Include Children in Rollup](#)
- [Change Location Type](#)

Note: -This is applicable for Cost Types that are related to Location

Edit Details

If you click on **Edit Details** the Edit page slides in that enables you to edit Cost.

Promote

If you click on **Promote**, the Cost gets promoted to the next state of its lifecycle

Change Include Children in Rollup

When you click on this link, a confirmation message is shown that the value of attribute **Include Children in Rollup** will be changed from **Yes** to **No** or vice-versa. You can click **Cancel** to abort this operation. Change in this attribute does not revise an **Active Cost** object.

Change Location Type

Change Location Type link allows you to change the **Location Type** for the selected **Cost** object from **Default** to **Alternate** and vice-versa. When you change the Location type from Default to Alternate, you have to select another cost object that would be made as Default. Changing **Location Type** for an **Active Cost** object does not revise the object.

View Reference Reports of Parts

This link allows you to view the reports related to the Costs.

The following links are available in the Actions Menu shown on the Summary page.

- [Comparing Two BOM Cost Rollup reports](#)
- [Comparing Two BOM Cost Rollup reports across Parts](#)

History

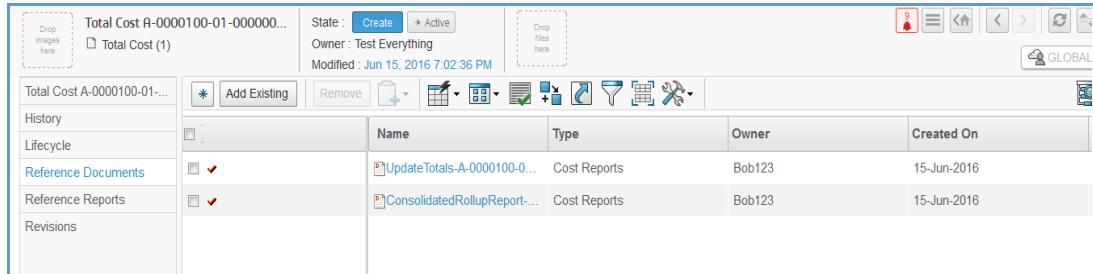
Shows Log of all Actions performed for a Cost.

Lifecycle

When a **Cost** is created, it is in the **Create** state of the Lifecycle. A Cost Analyst makes the Costs Active for a Part by moving them to Active state in the Cost lifecycle. The lifecycle for a Cost can be viewed by clicking the Lifecycle link under the Categories menu of Cost. The Lifecycle page displays all the states in the Cost's lifecycle.

Reference Documents

The documents related to the Costs are listed under the Reference Documents node of the Cost page toolbar. Reference Document can be connected to a Cost in any lifecycle state.



To view reference documents

- From the page toolbar click on **Reference Documents**

This page contains the following columns:

- Image** Indicates whether the **Reference Document** contains an attachment file generated by background process run in **ENOVIA Cost Analytics**.
- Name**. Name of the document. This column contains highlighted links. Click on any name in this column to view the Attachment for that object and click at the end of the row to view the Properties page in a new browser window.
- Type**. The Cost Document type.
- Owner**. User who is currently assigned management of the document.
- Created On**. Date when the document was created.

To add an existing document to the list

- Click **Add Existing**. The Find page appears where you can define criteria to search for objects that currently exist

To Create a New document

- Click **Create New**.

Step 1 of 2:Specify Details



Fields in red italics are required.

Name	<input type="text"/>	<input checked="" type="checkbox"/> AutoName
Type	Document	<input type="button" value="..."/>
Policy	Document Release	<input type="button"/>
Title	<input type="text"/>	
Description	<input type="text"/>	

Next **Cancel**

- **Name.** Type a document name into the Name text box or select the auto name checkbox.
- **Type.** Type of document is to be created.
- **Policy.** The Policy of document is to be created.
- **Title.** Title of the document.
- **Description.** Description for the new document.

2. Click **Next**. By selecting appropriate paths we can upload any kind of documents.

Step 2 of 2: Upload Files



File Format	Comments
<input type="button"/> No file selected. generic	<input type="text"/>
<input type="button"/> No file selected. generic	<input type="text"/>
<input type="button"/> No file selected. generic	<input type="text"/>

Previous **Done** **Cancel**

3. Click **Done**.

To remove reference documents

To remove documents from the list, click items you want to disconnect from the Part.

1. To select all documents for removal, click the check box in the title bar.
2. Click **Remove**

Reference Reports

The Reports related to the Costs are listed under the Reference Reports node of the Cost Object toolbar. When you run the Rollups or Totals, a file with the Calculated Totals data is created and attached to the Cost as a Reference Report. Reference Report can be connected to a Cost in any lifecycle state.

The Reference Reports page shows a list of Reports that are connected to the Cost with the Reference Reports relationship

To view reference Reports

- From the page toolbar click on **Reference Reports**.

Actions					
Name	Type	Description	Created By	Created On	
ConsolidatedRollupReport	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016	
ConsolidatedRollupReport	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016	
UpdateTotals-A-0000100-01	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016	
UpdateTotals-A-0000100-01	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016	

This page contains the following columns:

- Name** - Name of the Report. This column contains highlighted links. Click on any name in this column to view the details of the Report.
- Type** - The type of Cost Report.
- Description** - Description of the Report
- CreatedBy** – The User who is currently assigned management of the document.
- CreatedOn** - Date when the document was created.

To delete reference Reports

To remove Reports from the list, click the item you want to disconnect from the Cost

- To select all Reports to be deleted, click the check box in the title bar.
- Click on **Actions > Delete**.
- Only the owner of the Report has the access to delete the reports.

Revisions

All the revisions of the Cost object are listed under the Revisions link of Categories menu.

To view revisions of a Cost

Click on **Revisions** of the Page toolbar.

Total Cost A-0000100-01-000000...		State : Create → Active		Drop files here		(6/16/2016 3:17:11 PM)	(6/16/2016 3:16:53 PM)	Drop images here	GLOBAL	
History		Lifecycle		Reference Documents		Reference Reports		Revisions		
Name	Revisions	Type	State	Description						
Total Cost A-0000100-01-000	1	Total Cost	Create							

This page contains the following columns:

- Name** - Name of the Cost

- **Revision** - Revision of the **Cost**
 - **Type** - Type of the **Cost**
 - **State** - State of the **Cost**
 - **Description** - Description of the **Cost**.
-

Creating a New Cost

The **Cost Analyst** can create a new Cost. This helps the Cost Analysts to create costing information for the Part based on the various parameters such as associated location, Production Make Buy Code etc. **Design Engineers** and **Senior Design Engineers** can also view this costing information.

To create new **Cost object**

1. On Cost Summary page from page toolbar, Click **Actions > Create New**

The screenshot shows a software dialog box titled "Part s22 Unknown: Create Ne...". The dialog has a light blue header and a white body. It contains several input fields and buttons. At the top right is a question mark icon. Below it, a message says "Fields in red italics are required.". The first field is labeled "Type" with the value "MEP Cost" and a browse button "...". The next field is "Name" with an empty input box and a checked checkbox "Auto Name". The third field is "Description" with an empty input box. The fourth field is "Owner" with the value "Bob". At the bottom right are two buttons: "Next" and "Cancel".

2. Choose the Type of Cost to be created by Clicking on for selecting the **Type**

In case of addition of a new type, register it, and restart the server before creating any Costs of that type. The Cost Administrator needs to edit the Cost Template to add the new type in the Cost Template xml file. The other settings required for new type should be made in the properties file. Please refer to the **Admin Guide** for the steps required for basic property file configuration.

-
- **Name** - The **Cost** names can be generated automatically by the system, or you can type a new **Cost name**.
Type a unique Cost name into the **Name** text box.
Or

Select the option **Auto Name** for auto name generation.

- **Description** - Type concise details that describe the new Cost. Type any alphanumeric characters (numbers, letters, or allowed symbols) in this text box.
- **Owner**. The owner of this Cost object being created is the user who has logged into the VCP

3. Click on **Next**.

Enter the attributes required to create the Cost. The fields in red italics are the mandatory attributes required for Cost creation. The list of mandatory attributes may vary for each range of the mandatory attribute identifier in Cost Template. Refer to [About Cost Templates](#)

4. Depending on the selected range of the mandatory attribute identifier corresponding list of mandatory attributes will be displayed.
5. The Cost Attributes page shows the **Location level** attributes, **Target level** attributes, **Item Level** attributes and **Quote Level** attributes.

- **Location Level Attributes:**

- **Location Name** - Name of the Location for which the **Cost** is being Created
- **Location Type** - Select the Location type from the drop-down list. Select Default if the Cost created is a default one or alternate if the Cost is an Alternate one.

➤ **Location Currency** - It is retrieved from the selected location. Its default value is USD.

➤ **Labor Rate** - It is retrieved for the selected Location and it's a read only field. If labor is not there for a location then it is taken as zero.

- **Target Level Attributes:**

- **Item Target Cost** - Enter the desired cost for an Item

➤ **Target Cost Currency** - Enter the associated Currency for the Item Target Cost.

- **Item Level Attributes**

➤ **Production Make Buy Code** - This field decides if the Part is going to be manufactured or purchased. Select Make or Buy accordingly.

➤ **Cost Value Type** - Select the Value Type of the Cost.

➤ **Item Quoted Material Cost** - Enter the item quoted material cost for the associated location.

➤ **Item Quoted Material Currency** - Select the item quoted material currency for the associated location

➤ **Item Freight Cost** - Enter the item freight cost for the associated location

➤ **Item Labor Hours** - Enter the Number of labor hours for the associated location

➤ **Item Labor Cost** - It's a read only field. Once labor hours are entered and the pointer is clicked anywhere else on the page, item labor cost is calculated from item labor hours and labor rate (Formula defined in Cost Template).

➤ **Item Variable Cost** - Enter the item variable cost for the associated location

➤ **Item Fixed Cost** - Enter the item fixed cost for the associated location

➤ **Item Adjusted Cost** - Enter the item adjusted cost for the associated location

➤ **Adjusted Cost Description** - Enter the Adjusted Cost Description for the **Cost**

➤ **Include Children in Rollup** - Specify if the Parts at sublevels are to be included in the Rollup or not.

➤ **Quote Level Attributes** – These are the attributes that need to be filled in if the **Production Make Buy Code** is **buying**.

➤ **Supplier Name** Click on the button  to search for the **Supplier Name**.

➤ **Supplier DUNS Number**. Click on the button  to search for the **Supplier DUNS Number**.

➤ **Contract ID**. This specifies the Contract ID for a purchased item

➤ **Effective From**. The date/time from when the Item Quoted Material Cost becomes effective.

➤ **Effective To**. The date/time till when the Item Quoted Material Cost is effective.

6. Click **Done** to create the new **Cost**.

The mandatory attributes are specified in the Properties file. Refer to *Admin guide* for more details.

When you click **Done**, the system checks for the following errors:

- The Cost name must be unique among Costs for this Part.
 - The Part must have only one Cost with its Location Type set to Default.
 - The Location Name must be unique among the Part's Costs.
-

A Part may have only one Cost of type Total Cost per location; however, a Part may have an equivalent to it, which can be produced at or procured from the same manufacturing plant or Location. You can create a Cost for an MEP (Manufacturing Equivalent Part; see [MEP Cost Management](#))

For details on creating an MEP, see the *Engineering BOM Management User's Guide*.

Editing Details of a Cost

The latest revision of the **Cost** can be edited. This operation is not allowed on any previous revision of **Costs**. The **Cost** will be either edited or revised depending on its state. In **Create** state, cost will be edited and in **Active** state, cost will be revised.

To edit a Cost

1. Select a Cost from the Costs Page (Refer to Managing Costs)

If the Cost is of the latest revision, the Edit Details page allows you to modify the existing data.

Edit Total Cost s1-000000006 1	
?	Total Cost s1-000000006
Type	Total Cost
Description	test
Revisions 1	
Related Part s1 1	
Owner Bob	
State Create	
Location Level Attributes	
<i>Location Name</i>	
New York	
Done Cancel	

2. Attributes **Location Name**, **Location Type**, **Labor Rate**, **Item Labor Cost** and **Include Children in Rollup** are non-editable on this page.

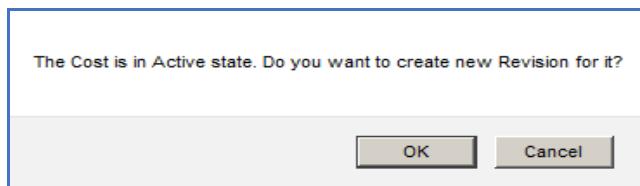
Note: -This is applicable for Cost Types that are related to Location.

3. Click **Done**.
-

Revising a Cost

If you edit an **Active Cost** object it creates a revision of it. The following operations take place when a **Cost** object is being revised.

1. Click on **Edit Selected** on an **Active Cost**. If the Cost is the latest revision, it can be revised.
2. You will be given a warning that a new revision will be created on revising the **Active Cost** object.



3. Click on **Ok** to continue revising the Cost or **Cancel** to abort the operation.
-

Deleting a Cost

The **Cost Analyst** can delete a **Cost** of a Part. The **Delete** operation can be performed only on the **Latest Revision** of the **Cost**. In case of any intermediate revision, this operation is not allowed.

To Delete a Cost:

1. On Cost Summary page select the appropriate **Cost** and Click on **Delete Selected**.
 2. A Confirmation message appears, Click **Ok** to delete the Costs and Click **Cancel** to exit the process.
 3. In case you are trying to **delete** the **Default Cost** object, all the **Reference Reports** and **Reference Documents** connected to the Default Cost object are moved to the new Default Cost.
-

The following error checking is performed while deleting the Level specification for the Parts Search

- Make sure the user is the **Owner** of the **Cost** being deleted.
- Make sure there is a **Default Cost** associated to the Part if the **Cost** being deleted is **Default Cost**. You should select other alternate Cost to be made as default.

List Parts with Key Cost Criteria

The process of identifying and adding Costs to a BOM/EBOM can be cumbersome and time-consuming. You can list the Parts in an EBOM with or without Costs, and you can import mass cost data for Cost types

To search for Part with **Cost**

1. From Costs' page, go to **Actions > List Parts with Key Cost Criteria**.

Part s1 1: List Parts with Key Cost Criteria

Fields in red italics are required.

Part Name	s1 1
Search Type	<input checked="" type="radio"/> Cost Object <input type="radio"/> No Cost Object <input type="radio"/> All Objects
Cost Type	Total Cost
Levels	DownTo... 1
State	

Location Attributes

Field	Operator	Enter Value	Select Value
Location Name			
Location Type			

Find Cancel

- **Part.** The name of the Part for which the search is performed
- **Search Type** can be mainly classified as
 - **Cost Object** – Search for Parts having associated Cost objects of the specified Cost Type.
 - **No Cost Object** – Search for the Parts with No Cost Object connected of the specified Cost Type.
 - **All Objects** -- Search for all the Parts with or without Cost Object connected of the specified Cost Type.
 - **Related Location** - Search for Parts, which do not have a Cost Object having the Specified related location.

- **Cost Type.** Select the Type of Cost for which you want to perform list parts from the Type Chooser.
 - **Levels.** Select the Levels to search for the Parts with the specified levels or select “All” option to perform search for all levels of the parts in the **EBOM**. In this case a background process is invoked and the search result is attached as a **Reference Document** to the **default Cost** object of the **Part** on which the search was performed. Refer to Admin guide for the Details about the settings for Background process.
 - Attributes such as **state** and all **Location Level** attributes are in the **basic** search. All the attributes of the cost object are available in the Advanced Search.
 - You can also perform the search based on the **Location** attributes for a Part
2. Click **Advanced Search** to perform a detailed level search with specific criteria for each Cost attribute. In advanced search, all the cost attributes related to a particular cost type are listed,
 3. In advanced search, for searching costs with an attribute value between a range, you should give the lower value and upper value separated by a space ' ' in the first textbox.
E.g. To search for costs with Total Cost between 0 and 100
You should enter ‘0 100’ in the available textbox
 4. Click **Find** to perform the search.

Part A-0000100-01 1: Child Parts With Key Cost Criteria

Level	Find Number	Part Name	Part Revision	Part Type	Cost	Cost Rev	Cost Type	State	Location Name	Location Type	Location Currenccy
0		A-0000100 1		Part	Total Cost...	1	Total Cost	Create	Japan	Alternate	Yen
0		A-0000100 1		Part	Total Cost...	1	Total Cost	Create	France	Default	Euro
0		A-0000100 1		Part	Total Cost...	1	Total Cost	Create	London	Alternate	Pound
1	1	A-0000101 1		Part	Total Cost...	1	Total Cost	Create	Japan	Alternate	Yen
1	1	A-0000101 1		Part	Total Cost...	1	Total Cost	Create	France	Default	Euro
1	2	A-0000102 1		Part	Total Cost...	2	Total Cost	Active	France	Default	Euro
1	2	A-0000102 1		Part	Total Cost...	1	Total Cost	Active	London	Alternate	Pound

The search results have the following fields

1. Header

- **Level** – This column indicates the level of the Part in the EBOM.
- **Find Number** - This column indicates the Find Number of the Part in the EBOM.
- **Part Name** – This is the Name of the Part in the EBOM.
- **Part Revision** – This field specifies the Part revision.
- **Part Type** – This field specifies the Part Type.
- **Cost** – This field specifies the Cost associated with the Part

- **Cost Revision**— This field specifies the revision of the Cost connected with the Part.
- **Cost Type**— This is the type of cost for which Cost Objects have been listed.
- **State** – This field specifies the state of the Cost associated with the Part
- **Location Name** - This field specifies the Location for the Cost associated with the Part
- **Location Type** - This field specifies the Location Type for the Cost associated with the Part
- **Location Currency** – This field specifies the Location currency.
- **Production Make Buy Code** – This field indicates if the Cost type is Make or Buy.
- **Icon**  - The Click on this icon opens the **Properties** page for the associated **Cost** object.

Refine Search

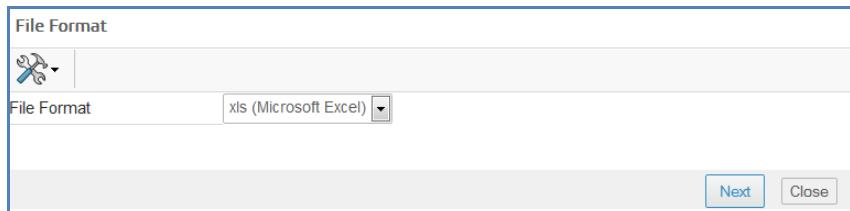
On the page toolbar, click **Actions > Refine Search** to refine your search further. The List Parts with Key Cost Criteria page is displayed again with your previous search criteria, so you can modify it.

Export

On the page toolbar, Click **Actions > Export** to save the results of your search to an Excel or CSV file on your system.

To export results to a file

1. File Format. Select the format from the drop-down list to store the result.
2. Click **Next**



3. Click filename to download.

Mass Promote Selected Part Costs

You can mass promote Part Costs from the Create state to the Active state. View the list of Costs for a Part; see [List Parts with Key Cost Criteria](#)

Check the parts you want to promote and click **Actions > Mass Promote Selected Part Costs.**

Delete Selected

You can delete the selected or all cost objects. This link is visible only when search type is “Cost Objects”.

1. Select the appropriate check boxes against each Cost and Click on the **Delete Selected** to delete a Cost.
2. Select the checkbox at the Header and Click on the **Delete Selected** to delete all the Cost.
3. In case all the objects have been deleted, the Page is refreshed. If some object cannot be deleted, the object details and the reason why it could not be deleted, is displayed on the summary page.

The Summary page contains the following information

- **Part:** This field gives the name of the Part connected to the Cost.
- **Revision:** This field specifies the revision of the Part.
- **Cost:** This field gives the Name of the Cost object that could not be deleted.
- **Revision:** This field specifies the revision of the Cost object that could not be deleted.
- **Reason:** This field gives a brief description of the reason why the cost object could not be deleted.

Part A-0000100-01 1: Child Parts With Key Cost Criteria											
Level	Find Number	Part Name	Part Revision	Part Type	Cost	Cost Rev	Cost Type	State	Location Name	Location Type	Location Current
0		A-000010C 1		Part	Total Cost... 1		Total Cost	Create	Japan	Alternate	Yen
0		A-000010C 1		Part	Total Cost... 1		Total Cost	Create	France	Default	Euro
0										Alternate	Pound
1	1									Alternate	Yen
1	1									Default	Euro
1	2	A-000010C 1		Part	Total Cost... 2		Total Cost	Active	France	Default	Euro
1	2	A-000010C 1		Part	Total Cost... 1		Total Cost	Active	London	Alternate	Pound

Edit Selected

This can be done only for Total Cost objects. Selected Total Cost Objects can be edited with this option

- If any cost objects are in Active state then a window pops up with the message, “Some Cost(s) are in Active state. Do you want to create new Revision for them?”
- On click of **OK** button the mass edit page is displayed.

You can specify or edit existing data, using dropdowns, date selectors as well as text box. On click of **Done**, validation is done for all the data and for invalid data, an alert message is given as ‘Enter Valid Values’. If the data is valid, it is updated in database.

In the **column** drop down the attribute to be edited is to be selected.

Then there are two buttons as described below:

- **Apply to Selected:** On clicking this button only selected rows are updated.
- **Apply to all Rows:** On clicking this button all rows are updated.

Selecting the text boxes or drop downs can directly modify the fields.

The behavior of the attributes is described in the table below:

Field Name	Input Type	Comment
<i>Part Name</i>	Not Editable	Part name Corresponding to the Total Cost.
<i>Total Cost Name</i>	Not Editable	Name of Total Cost
<i>Cost Revision</i>	Not Editable	Revision of the Cost.
<i>Location Name</i>	Not Editable	Location Name corresponding to the Total Cost.
<i>Labor Rate</i>	Not Editable	Labor rate corresponding to the Location.
<i>Location Type</i>	Not Editable	Values indicate default or alternate.
<i>Location Currency</i>	Dropdown	Shows range values of the attribute Location Currency. Currencies will be those that exist in the company's currency exchange rate table.
<i>Production Make</i>	Dropdown	Values indicate Buy/Make.

<i>Buy Code</i>		
<i>Cost Value Type</i>	Dropdown	Takes values Estimate/Actual/Quote. Default is Estimate.
<i>Item Target Cost</i>	Editable Textbox	Default is set to 0. (Only Numeric value)
<i>Target Cost Currency</i>	Dropdown	Shows range values of the attribute Target Cost Currency. Currencies will be those that exist in the company's currency exchange rate table.
<i>Item Material Cost</i>	Editable Textbox	Default is set to 0.
<i>Item Material Currency</i>	Dropdown	Shows range values of the attribute ItemMaterialCurrency. Currencies will be those that exist in the company's currency exchange rate table.
<i>Item Freight Cost</i>	Editable Textbox	Default is set to 0.
<i>Item Labor Hours</i>	Editable Textbox	Default is set to 0.
<i>Item Labor Cost</i>	Editable Textbox	Calculated from Item Labor Hours and Labor Rate.
<i>Item Variable Cost</i>	Editable Textbox	Default is set to 0.
<i>Item Fixed Cost</i>	Editable Textbox	Default is set to 0.
<i>Item Adjusted Cost</i>	Editable Textbox	Default is set to 0.
<i>Adjusted Cost Description</i>	Editable Text area	Default is set to blank.
<i>Supplier Name</i>	Text/chooser button	Click on the ellipsis button to search for the Supplier Name
<i>Supplier DUNS Number</i>	Text/ chooser button	Click on the ellipsis button to search for the Supplier DUNS Number.
<i>Contract ID</i>	Editable Textbox	This specifies the Contract ID for a purchased item
<i>Effective From</i>	Text/calendar link	The date/time from when the Item Quoted Material Cost becomes effective
<i>Effective To</i>	Text/calendar link	The date/time till when the Item Quoted Material Cost is effective

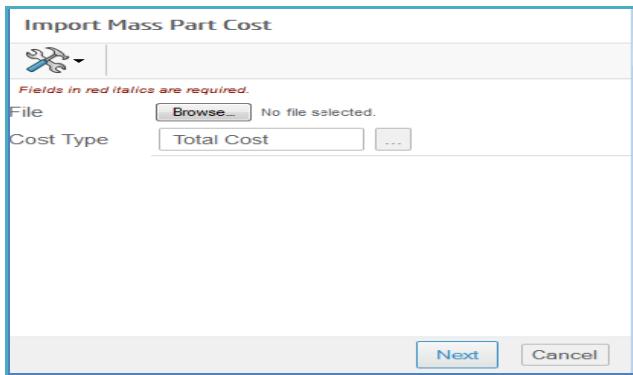
Note: Item Labor Cost is calculated from Item Labor Hours and Labor Rate.

Import Mass Part Costs

This feature will allow you to import cost related data for a list of Parts from a spreadsheet (XLS file) and it satisfies the need to manage the cost related data for a collection of BOM items. The **Import Mass Part Cost** link will appear on the Engineering Actions tab.

To Import the Mass Costs:

1. Click on  > Engineering > Import Mass Part Cost.
2. A pop-up window appears which enables you to upload the file containing the multiple cost.
 - **File.** The file from which the Cost Data needs to be imported into eMatrix.
 - **Cost type.** The type of cost for which the cost objects need to be imported.



3. Click **Next** to import the Part List Cost data from a specified file
4. Click **Cancel** to cancel the request

The data in the file is loaded on the screen.

- **Links**
- [Mass Edit](#)
- **Header Fields**

Note: - The fields that would be displayed in the header depend upon the property file

setting.emxCostAnalytics.ImportMassPartCost.AttributeList.type_CostType.

This setting should contain all the attributes that need to be displayed on import mass part cost page for the particular cost type.

By default this attributes are mentioned in property file for TotalCost type.

- **Validation Icon:** This icon represents the action that will be taken for the associated cost object
- **Part Name:** This is the Name of the Part for which we are importing the cost object.
- **Part Revision:** This is the Part revision for which we are importing the costs.
- **Part Type:** This is the Part type for which we are importing the costs.

- **Cost Name:** The name of the cost object that should be created. If no name is specified, the cost will be created using an auto name.
- **State:** The state in which the cost object should be created.
- **Location Name:** Name of the Location for which the Cost object is being Created
- **Location Type:** Specifies if the Location is of type Default or Alternate.
- **Location Currency:** This specified the preferred Currency for the selected Location
- **Production Make Buy Code:** This field decides if the Part is going to be manufactured or purchased.
- **Cost Value Type:** Specifies the Value Type of the Part.
- **Item Target Cost:** This indicates the desired cost for an Item
- **Target Cost Currency:** This specifies the associated Currency for the Item Target Cost.
- **Include Children In Rollup:** This field indicates if the subparts should be considered in the rollup calculations or not.
- **Item Quoted Material Cost:** This field specifies the Item Quoted Material Cost for the cost object being created.
- **Item Quoted Material Currency:** This field specifies the Currency associated with the Item Quoted Material Cost
- **Item Freight Cost:** This field specifies the Item Freight Cost for the cost object being created
- **Item Labor Hours:** This field specifies the Item Labor Hours for the cost object
- **Item Variable Cost:** This field specifies the Item Variable Cost for the cost object
- **Item Fixed Cost:** This field specifies the Item Fixed Cost for the cost object
- **Item Adjusted Cost:** This field specifies the Item Adjusted Cost for the cost object
- **Supplier Name:** This field specifies the Supplier Name in case the Production Make Buy Code is Buy
- **Supplier DUNS Number:** This field specifies the Supplier DUNS Number
- **Contract ID:** This field specifies the Contract ID for the cost object
- **Effective From:** This field specifies the from affectivity date for the cost object
- **Effective To:** This field specifies the to affectivity date for the cost object

5. Click **Done**
 6. Click **Cancel** to cancel the request.
-

Note: -You should not import Labor Cost because it needs to be Calculated on the basis of formula (Item Labor Hours * Labor Rate) Specified in Total Cost Template, which is non editable.

- If a part does not have any costs. Only one cost should be added for that Part in the excel file
- Part Name, Part Revision and Location Name are mandatory columns in the excel file along with the mandatory attributes of Cost.

- Cost Name in import cost must be unique if entered its being entered otherwise it will not be created or if not entered would be auto-generated.
- In the excel file, Date fields should be in the DD/MM/YYYY format.
- A cost is identified by the Part and Location not by its name. Cost Name is considered only while creating a cost. If cost names were not entered they would be auto-generated.

The import function will be a two pass approach where:

- The first pass performs mandatory attribute checks, attribute value checks, redundant cost checks and object existence checks, whereas
- The second pass performs location type checks
- **Mass Import Pass 1 Checks/Rules**

In the first pass following validations are performed:

1. Mandatory Identifier check.
2. Part existence check.
3. Location existence check.
4. Invalid attribute values check.
5. Some cost name check

Along with the above mentioned error messages, some warnings are also displayed.

Import Mass Part Cost Step 1													
Mass Edit		Select the Icons for Mass Edit											
<input type="checkbox"/>		Invalid Attribute Value	<input type="checkbox"/>		Invalid Mandatory Identifier :- Production Make Buy Code								
<input type="checkbox"/>		Location Does Not Exist	<input type="checkbox"/>		Active Cost Exists								
<input type="checkbox"/>		Cost Will be Replaced	<input type="checkbox"/>		Existing active Default Cost will be revised as a new Alternate Cost								
Mandatory not Specified				Invalid value				Not Numeric					
	Part Name	Part Revision	Part Type	Cost Name	State	Location Name	Location Type	Location Currency	Production Make Buy Code	Cost Value Type	Item Target Cost	Target Cost Currency	
<input type="checkbox"/>	s1	1	Part	cost101	Create	London	Default	USD	Make	Quoted	10.0	USD	
<input type="checkbox"/>		s2	1	Part	cost101	Create	Paris	Default	USD	Make	Quoted	10.0	USD
<input type="checkbox"/>		s3	1	Part	cost101	Create	Delhi	Default	USD	Make	Quoted	10.0	USD

	Active Cost Exists. Cost will be revised.						
	Existing Cost will be replaced.						
	A new Default Cost will revise existing Active Alternate Cost.						
	Location does not exist. Please edit the cost and select a valid						
	Part does not exist. Enter a valid part and re-import.						
	This Cost is repeated in the file. No action will be performed.						
	A cost with the same name already exists. Please change the cost name in the input file and re-import the cost.						
	Existing active Default cost will be revised as new Alternate Cost						
	Existing create Alternate Cost will be Replaced by a new Default Cost						
	Existing create Default Cost will be replaced by a new Alternate Cost						
	Cost has invalid Mandatory Identifier value. Please edit the cost and fill valid values.						
	<p>Cost has invalid attribute values. Please edit the cost and fill valid values. With this icon all invalid values of attributes are shown in a different color cell.</p> <table border="1"> <tr> <td></td> <td>Mandatory Attribute's value is missing.</td> </tr> <tr> <td></td> <td>Specified attribute value is Invalid</td> </tr> <tr> <td></td> <td>For a numeric attribute, a non-numeric value is specified.</td> </tr> </table> <p>These colors are configurable in Property file.</p>		Mandatory Attribute's value is missing.		Specified attribute value is Invalid		For a numeric attribute, a non-numeric value is specified.
	Mandatory Attribute's value is missing.						
	Specified attribute value is Invalid						
	For a numeric attribute, a non-numeric value is specified.						

Mass Edit

You can edit the **Cost** Details of All or selected **Costs**.

To **Mass Edit Cost**:

- To select all objects for Edit, click the check box in the title bar.
- Click **Mass Edit**.
- Click **Submit**

Cost Edit

Part Name	Part Revision	Part Type	Cost Name	State	Location Name	Location Type	Location Currency	Production Make Buy Code	Cost Value Type	Item Target Cost	Target Cost Currency	Include Children In Rollup	Item Material
s1	1	Part	cost101	Create	London	Default	USD	Make	Quoted	10.0	USD	Yes	10.0
s2	1	Part	cost101	Create		Default	USD	Make	Quoted	10.0	USD	Yes	10.0
s3	1	Part	cost101	Create		Default	USD	Make	Quoted	10.0	USD	Yes	10.0

Done Cancel

Mass Import Pass 2 Checks/Rules

In the second pass all of the first pass transactions will be performed, but not committed to the database. The second pass import function will redisplay the table, sorted by part number, which will reflect the costs selected in the 1st pass.

Only the location type values can be edited in the second pass edit page to avoid possibly introducing attribute value errors. For editing the location type values, a command for “Change Location Type” is available.

Following checks are done at pass 2:

1. Check if the mentioned parts have at least one default cost in the system.
2. Check, if the mentioned parts have multiple defaults cost in the system.
3. Check, if the mentioned parts no default cost in the system.

Import Mass Part Cost Step 2

Select the Icons for Change Location Type

No Location for this part has a Location Type value set to Default, Edit one of the Location Type values to be Default.
 Multiple locations for this part have the Location Type value set to Default, Change the Location Type values for this part so only one is set to Default.
 Existing Default Cost will be updated to Alternate Cost.

	Part Name	Part Revision	Part Type	Cost Name	State	Location Name	Location Type	Location Currency	Production Make Buy Code	Cost Value Type	Item Target Cost	Target Cost Currency	Include Children In Rollup	Item Material Cost	Item Material Currency	Item Freight Cost	Item Labor Hours	Item Variable Cost	Item Fixed Cost	Item Adjusted Cost
<input checked="" type="checkbox"/>	s1	1	Part	cost101	Create	London	Default	USD	Make	Quoted	10.0	USD	Yes	10.0	USD	10.0	10.0	10.0	10.0	

If any of the imported costs does not satisfy the checks, an icon corresponding to that cost will be shown.

The following error checking is performed on Import Mass Part Cost Step2:

	Existing Default Cost will be updated to Alternate Cost.
	No Default Cost Exists for Part. Default Cost will be created.
	Multiple locations for this part have the Location Type value set to Default, Change the Location Type values for this part so only one is set to Default.

On click of the “**Change Location Type**”, the location type of the selected cost will be changed from Alternate to Default or Vice-versa.

On click of **Done** the costs will be saved in the system.

Note: For creating costs through second pass, none of the costs present on the second pass should have error icons.

6

MEP Cost Management

This section deals with MEP Cost Management.

In this section:

- [Viewing an MEP Part Cost](#)
- [Creating an MEP Part Cost](#)
- [Editing an MEP Part Cost](#)
- [Import Mass MEP Part Costs](#)

Viewing an MEP Part Cost

This Cost type pertains to the Cost aspects of a Part. Any time you click on a highlighted Cost name from anywhere in the Application, the Cost Properties page appears.

Following links are available in Categories menu.

Note: This **Categories** menu is specific to MEP Cost type. You can define a different **Categories** menu to a newly added Cost Type.

- **History** is the AEF History
- **Lifecycle** is the AEF Lifecycle
- **Reference Document** allows you to view the documents associated with the cost.
- **Reference Report** shows the Reference reports associated with the cost generated as a result of Rollup Calculations.
- **Revisions** Lists the Revisions of the Cost.

Creating an MEP Part Cost

The Cost Analyst can create a new MEP Cost. This MEP Cost is always created on MEP (Manufacturing Equivalent Part). Design Engineers and Senior Design Engineers can also view this costing information.

To create new MEP Cost object

1. Go to the MEP Part
2. From Categories menu, click on **Cost**
3. Click **Actions > Create New**

The screenshot shows a dialog box titled "Part MEP1 1: Create New Cost". At the top, there is a question mark icon and a note: "Fields in red italics are required." Below this, there are four main sections: "Type", "Name", "Description", and "Owner".
- In the "Type" section, there is a field labeled "Total Cost" with a "...".
- In the "Name" section, there is a field with a red italicized placeholder "Auto Name" followed by a checked checkbox.
- In the "Description" section, there is a large text area.
- In the "Owner" section, there is a field containing "Bob".
At the bottom of the dialog, there are two buttons: "Next" and "Cancel".

- **Type:** Type of MEP Cost object will be shown as **MEP Cost**.

- **Name - Cost** names can be generated automatically by the system, or you can type a new **Cost name**.

Type a unique Cost name into the **Name** text box.

Or

Select the option for **Auto Name** generation.

- **Description.** Type concise details that describe the new Cost.

4. Click **Next**

The screenshot shows the 'Part MEP1 1: Cost Attributes' dialog box. It has two main sections: 'Location Level Attributes' and 'Target Level Attributes'. In the 'Location Level Attributes' section, there are four fields: 'Location Name' (dropdown menu showing 'London'), 'Location Type' (dropdown menu showing 'Default'), 'Location Currency' (dropdown menu showing 'Pound'), and 'Labor Rate' (text input field showing '15.0'). In the 'Target Level Attributes' section, there is a 'Item Target Cost' field (empty) and a 'Target Cost Currency' dropdown menu showing 'USD'. At the bottom right of the dialog are three buttons: 'Previous', 'Done', and 'Cancel'.

5. Enter the attribute required to create the Cost. The fields in red italics are the mandatory attributes required for Cost creation. The list of mandatory attributes may vary for each range of the mandatory attribute identifier in Cost Template. Depending on the selected range of the mandatory attribute identifier corresponding list of mandatory attributes will be displayed.
6. The Cost Attributes page shows the Location level attributes, Target level attributes, Item Level attributes and Quote Level attributes

- **Location Level Attributes**

- **Location Name.** Name of the Location for which the **Cost** object is being Created
- **Location Type** Select the Location type from the drop-down list: Select Default if the Cost created is a default one or Alternate if the Cost is an Alternate one.
- **Location Currency.** It is retrieved from the selected location. Its default value is USD
- **Labor Rate:** It is retrieved for the selected Location and it's a Read only field. If labor is not there for a location then it taken as zero.

- **Target Level Attributes**

- **Item Target Cost.** Enter the desired cost for an Item
 - **Target Cost Currency.** Enter the associated Currency for the Item Target Cost.
 - **Item Level Attributes**
 - **Production Make Buy Code.** This field decides if the Part is going to be manufactured or purchased. Select Make or Buy accordingly.
 - **Cost Value Type.** Select the Value Type of the Cost
 - **Item Quoted Material Cost.** Enter the item quoted material cost for the associated location
 - **Item Quoted Material Currency.** Select the item quoted material currency for the associated location
 - **Item Freight Cost.** Enter the item freight cost for the associated location
 - **Item Labor Hours.** Enter the Number of labor hours for the associated location
 - **Item Labor Cost.** It's a read only field. Once labor hours are entered and the pointer is clicked anywhere else on the page, itemlabor cost is calculated from item labor hours and labor rate (Formula defined in Cost Template).
 - **Item Variable Cost.** Enter the item variable cost for the associated location
 - **Item Fixed Cost.** Enter the item fixed cost for the associated location
 - **Item Adjusted Cost.** Enter the item adjusted cost for the associated location
 - **Adjusted Cost Description.** Enter the Adjusted Cost Description for the **Cost**
 - **Include Children in Rollup.** Specify if the Parts at sublevels are to be included in the Rollup or not.
 - **Quote Level Attributes** – These are the attributes that need to be filled in if the **Production Make Buy Code** is **buying**.
 - **Supplier Name** Click on the button  to search for the **Supplier Name**.
 - **Supplier DUNS Number.** Click on the button  to search for the Supplier DUNS Number.
 - **Contract ID.** This specifies the Contract ID for a purchased item
 - **Effective From.** The date/time from when the Item Quoted Material Cost becomes effective.
 - **Effective To.** The date/time till when the Item Quoted Material Cost is effective.
7. Click **Done** to create the Cost object.
- The mandatory attributes are specified in the Properties file.

The following error are checked during the Creation of Cost for the Cost Types that are related to Location and are similar to Total Cost type

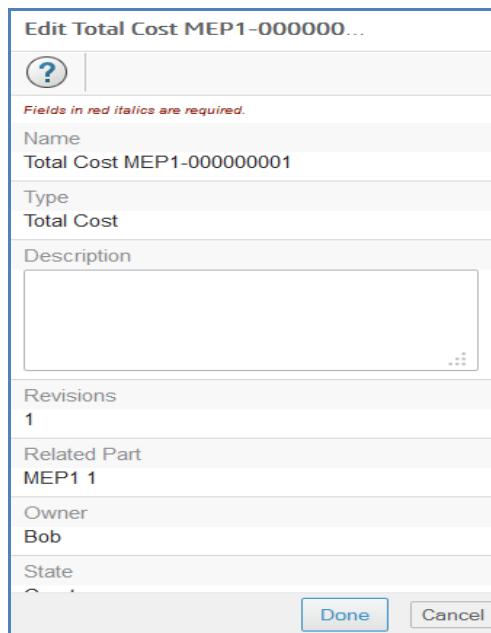
- A Part can have only one of the Cost which will have the Location Type as Default.
- The specified Cost name is unique.

Editing an MEP Part Cost

To edit a MEP Cost Object, only the latest revision of the MEP Cost can be edited or revised for editing depending on its state. Create state cost will be edited and in Active state, cost will be revised before edit operation.

To Edit an MEP Cost object

1. Select a MEP Cost from Costs page.
2. From Actions menu click ‘**Edit Selected**’ link
3. If the Cost Object is of the latest revision, the Edit Details page allows you to modify the existing data.



The screenshot shows a modal dialog titled "Edit Total Cost MEP1-000000...". It contains the following fields:

- Name: Total Cost MEP1-000000001
- Type: Total Cost
- Description: (empty)
- Revisions: 1
- Related Part: MEP1 1
- Owner: Bob
- State: (empty)

At the bottom right are "Done" and "Cancel" buttons.

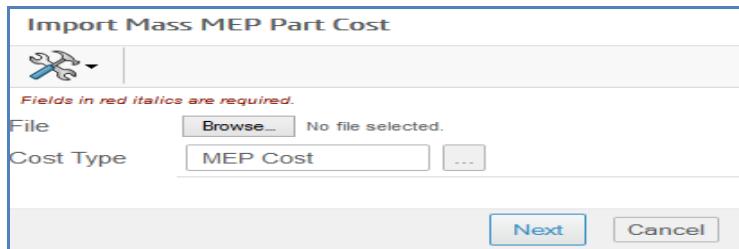
4. Attribute Location Name, Location Type, Labor Rate, Item Labor Cost are non-editable on this page.
5. Click **Done**

Import Mass MEP Part Costs

This feature will allow you to import multiple MEP Cost for a list of Parts from a spreadsheet (XLS file).

To Import MEP Cost object

1. Click Actions > **Import Mass MEP Part Cost**.



To Import the Mass MEP Costs:

1. **File.** The file from which the MEP Cost Data needs to be imported into eMatrix.
2. **Cost type.** The type of cost for which the cost objects need to be imported.
3. Click **Next** to import the Part List Cost data from a specified file.
4. Click **Cancel** to cancel the request

The data in the file is loaded on the screen.

- **Links**

Mass Edit

- **Header Fields**

- **Validation Icon:** This icon represents the action that will be taken for the associated cost object
- **Part Name:** This is the Name of the Part for which we are importing the cost object.
- **Part Revision:** This is the Part revision for which we are importing the costs.
- **Part Type:** This is the Part type for which we are importing the costs.
- **Cost Name:** The name of the cost object that should be created. If no name is specified, the cost will be created using an auto name.
- **State:** The state in which the cost object should be created.
- **Location Name:** Name of the Location for which the Cost object is being Created
- **Location Type:** Specifies if the Location is of type Default or Alternate.
- **Location Currency:** This specified the preferred Currency for the selected Location.
- **Item Quoted Material Cost:** This field specifies the Item Quoted Material Cost for the cost object being created.
- **Item Quoted Material Currency:** This field specifies the Currency associated with the Item Quoted Material Cost
- **Item Freight Cost:** This field specifies the Item Freight Cost for the cost object being created
- **Item Variable Cost:** This field specifies the Item Variable Cost for the cost object
- **Item Fixed Cost:** This field specifies the Item Fixed Cost for the cost object
- **Item Adjusted Cost:** This field specifies the Item Adjusted Cost for the cost object
- **Supplier Name:** This field specifies the Supplier Name in case the Production Make Buy Code is Buy
- **Supplier DUNS Number:** This field specifies the Supplier DUNS Number
- **Contract ID:** This field specifies the Contract ID for the cost object
- **Effective From:** This field specifies the from effectivity date for the cost object

- **Effective To:** This field specifies the ‘effectivity to’ date for the cost object
 - **Adjusted Cost Description:** This field specifies the description of the cost.
5. Click **Done**
 6. Click **Cancel** to cancel the request
 - If a part does not have any costs. Only one cost should be added for that Part in the excel file
 - Part Name, Part Revision and Location Name are mandatory columns in the excel file along with the mandatory attributes of Cost.
 - Cost Name in import cost must be unique if entered by you otherwise it will not be created or if not entered would be auto-generated.
 - In the excel file, Date fields should be in the DD/MM/YYYY format.
 - A cost is identified by the Part and Location not by its name. Cost Name is considered only while creating a cost. If cost names were not entered they would be auto-generated.
 - For Total Cost type, the Import Mass Part Cost functionality is based on two pass approach where in all the validations on the imported data is performed in one pass and the second pass performs location type checks
Now, the import MEP cost function will have only one pass as the location type over here is constant i.e. having “Default” value always.
 - The pass performs mandatory attribute checks, attribute value checks, redundant cost checks and object existence checks
 - **Mass Import Pass Checks/Rules**
In the pass following validations are performed:
 1. Mandatory Identifier check.
 2. Part existence check.
 3. Location existence check.
 4. Invalid attribute values check.
 5. Some cost name check
 6. Invalid part policy
 7. MEP cost Exist
 8. Location cannot be alternate

Import Mass MEP Part Cost Step 1

Mass Edit |

Select the Icons for Mass Edit

<input type="checkbox"/> Invalid Attribute Value	<input checked="" type="checkbox"/> Cost Will be Replaced	<input type="checkbox"/> Invalid part policy	<input type="checkbox"/> Location type cannot be Alternate
<input type="checkbox"/> Location Does Not Exist	<input type="checkbox"/> Active Cost Exists	<input type="checkbox"/> MEP Cost Exists	

Mandatory of Specified Invalid value Not Numeric Bad Chars

	Part Name	Part Revision	Part Type	Cost Name	State	Location Name	Location Type	Location Currency	Item Material Cost	Item Material Currency	Item Freight Cost	Item Variable Cost	Item Fixed Cost	Item Adjusted Cost	Supplier Name	Supplier DUNS Number	Contract ID	Effective From	Effective To
<input type="checkbox"/>	s33	Unknown	Part	Demo Cost 00111111	Create	London	Default	USD		USD	11.0	11.0	22.0	111.0			GE01-A-233		
<input type="checkbox"/>	s22	Unknown	Part	Demo Cost 00111111	Create	London	Default	USD		USD	11.0	11.0	22.0	111.0			GE01-A-233		

> Done Cancel

Mass Edit

You can edit the **Cost** Details of multiple Parts by clicking on **Mass Edit Cost** link.
To **Mass Edit Cost**:

- To select all documents for Edit, click the check box in the title bar.
- Click **Mass Edit**.
- Click **Submit** to save the Changes.

Cost Edit

Part Name	Part Revision	Part Type	Cost Name	State	Location Name	Location Type	Location Currency	Item Material Cost	Item Material Currency	Item Freight Cost	Item Variable Cost	Item Fi
s33	Unknown	Part	Demo Cost 00111111	Create	London	Default	USD	1500	USD	11.0	11.0	22.0
s22	Unknown	Part	Demo Cost 00111111	Create	London	Default	USD	2500	USD	11.0	11.0	22.0

< > Done Cancel

After the editing process, Click on **Submit** and the cost will be created.

Along with the above mentioned error messages, some warnings are also displayed
The following error checking is performed on Import Mass MEP Part Cost Step1

	Active Cost Exists. Cost will be revised.
	Existing Cost will be replaced.
	Location does not exist. Please edit the cost and select a valid
	Part does not exist. Enter a valid part and re-import.
	This Cost is repeated in the file. No action will be performed.
	A cost with the same name already exists. Please change the cost name in the input file and re-import the cost.
	MEP Cost exists.
	Location Type cannot be Alternate.
	Invalid Part policy.
	<p>Cost has invalid attribute values. Please edit the cost and fill valid values. With this icon all invalid values of attributes are shown in a different color cell.</p> <ul style="list-style-type: none"> Mandatory Attribute's value is missing. Specified attribute value is Invalid For a numeric attribute, a non-numeric value is specified. These colors are configurable in Property file.

7

Working with BOM Cost Reports

Cost Analyst can generate the BOM Cost Reports for the Costs.

This section includes:

- [About BOM Cost Reports](#)
- [Managing BOM Cost Rollup Reports](#)
- [Viewing BOM Cost Reports](#)
- [Creating BOM Cost Reports](#)
- [Comparing Two BOM Cost Rollup reports](#)
- [Comparing Two BOM Cost Rollup reports across Parts](#)
- [Comparing Two BOM Cost Rollup reports](#)
- [Comparing Two Multi Level AVL reports across Parts](#)
- [Cost Change History Report](#)
- [Cost Change History Graph in Kava Chart](#)

About BOM Cost Reports

You can create and compare reports which rollup the costs for a BOM/EBOM with the Update Totals command. The Costs chosen for the Parts in the EBOM depend on the Location preferences you specify for the report.

You have three choices of reports:

- Multi-Level EBOM Rollup
- Consolidated EBOM Rollup
- Multi-Level AVL Report

The Multi-Level EBOM Rollup report shows the data in a hierarchical format. The Consolidated EBOM Rollup shows the data in a consolidated format. The Multi-Level AVL Report shows the data for a MEP. Reports can also be generated when cost objects are in Create and Active state by entering the choice of Cost Revision Preference as Latest or Latest Released.

Managing BOM Cost Rollup Reports

When you create rollup report, such as a Multi-Level EBOM Rollup, the system associates it to the Part from which you created the report. The rollup reports are attached to the default Cost for that Part as Reference Reports.

You can view the reports and export them

Before you begin list all the Cost for the Part. Refer to [Managing Costs](#)

1. Select the default Cost and click on **Reference Reports**.

The screenshot shows the ENOVIA Costing and Analytics software interface. At the top, there's a toolbar with various icons. Below the toolbar, the main area displays a summary card for a part named 'Total Cost A-0000100-01-000000...'. The card includes fields for 'State' (Create, Active), 'Owner' (Test Everything), and 'Modified' (Jun 15, 2016 7:02:36 PM). To the right of the card are file attachments: a PDF file (6/16/2016 3:17:11 PM) and a Word document (6/16/2016 3:16:53 PM). On the far right, there are global navigation icons. The main content area is titled 'Reference Reports' and contains a table with the following data:

Name	Type	Description	Created By	Created On
ConsolidatedRollupReport	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016
ConsolidatedRollupReport	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016
UpdateTotals-A-0000100-01	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016
UpdateTotals-A-0000100-01	Cost Reports	Cost Type: Total Cost Def...	Bob123	15-Jun-2016

The **Reference Report** summary page contains these columns:

- **Name.** Click on any highlighted link in the Name column to view the Rollup Report page

- **Icon** - represents a valid BOM Cost Rollup Report whereas shows an Error Report.
- **Type**. The Cost Report type.
- **Description**. Details entered by the user while generating the Rollup Report.
- **Created By**. The name of user who generated the Report.
- **Created On**. The time when the report was created.

Action Links

- **Compare Reports** – This link is used to compare reports
 - **Export** – This link is used to Export the report.
 - **Compare Reports Across Parts** – This link is used to Compare reports across Parts.
 - **Delete** - This link is used to delete the Reports.
 - **Cost Change History Report** – This link is used to View the Cost Change History of the Reports.
-

Viewing BOM Cost Reports

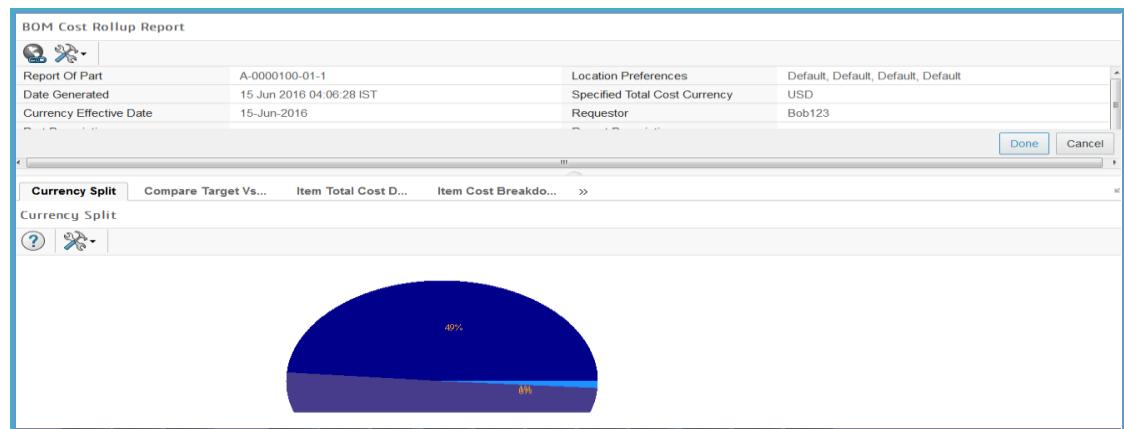
To view the **BOM Cost Reports**:

1. Click on name of the **Cost Report**.
 2. The **Hierarchical BOM Cost Report** is displayed.
-

BOM Cost Rollup Report

On click of the Update Totals link the BOM Cost Rollup Report page is displayed.

It displays a portal with two channels. One channel displays the BOM assembly and the other channel displays the various report tabs, all displayed on the same page. Likewise we can see that all the reports of a particular part on one page itself.



BOM Cost Rollup with “Latest” revision

The screenshot shows the 'BOM Cost Rollup Report' window with a 'Structure View' tab selected. The title bar indicates 'UpdateTotals-A-0000100-01-11465970756553 rev -: Structure View'. The main area displays a hierarchical tree of parts under 'Over Target A'. The columns in the table include: Over Target A, Name, Type, Level, Parts, Rev, State, Location, Location Currency, Cost Value Type, Production Make Buy Code, Quantity, Total Target Cost, and Total Cost. The data shows various parts at different levels, with some specific details like location and currency highlighted in yellow.

Over Target A	Name	Type	Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total Target Cost	Total Cost
Part 0	A...	Part	0	A-00...	1	Create	Japan	Yen	Estimate	Make	1.0	8.60	68.32K
Part 1	A...	Part	1	A-00...	1	Create	Japan	Yen	Estimate	Make	1.0	6.10	29.47K
Part 2	A...	Part	2	A-00...	1	Create	Japan	Yen	Estimate	Make	1.0	0.00	12.42K
Part 2	A...	Part	2	A-00...	1	Create	London	Pound	Estimate	Buy	1.0	0.00	7,390.00
Part 1	A...	Part	1	A-00...	1	Create	Japan	Yen	Estimate	Buy	1.0	0.00	5,453.00
Part 1	A...	Part	1	A-00...	1	Create	France	Euro	Estimate	Make	1.0	0.00	24.79K

BOM Cost Rollup Report with “Latest released” revision

The screenshot shows a software interface for generating a cost report. At the top, there's a header section with various parameters:

Report Of Part	D-0000101-01-1	Location Preferences	Default, London, Milan, Los Angels
Date Generated	09 Jul 2015 12:28:24 IST	Specified Total Cost Currency	USD
Currency Effective Date	Jul 9, 2015	Requestor	Test Everything
Part Description		Report Description	
Referred Cost Template	Total CostRev 0	Cost Type	Total Cost

Below the header is a section titled "UpdateTotals-D-0000101-01-11436425133285 rev :- Structure View". This section contains a table of BOM cost data:

Error Symbol ▾	Over Tar	Name	Type	Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total
☒ ○	☒	②D...	Part	0	D-00...	1	Active	London	Pound	Actual	Make	1.0	2,500.
☒ ○	☒	②D...	Part	1	D-00...	1			USD			1.0	1,500.
☒ ○	☒	②D...	Part	2	D-00...	1			USD			1.0	1,500.
☒ ○	☒	②D...	Part	3	D-00...	1	Active	New Y...	USD	Actual	Make	1.0	1,500.

- **Header**

- **Report of Part** – The Part for which the Rollups were calculated.
- **Location Preferences** – These are the Location preferences that were selected while calculating the Rollups.
- **Date Generated** – The date when this Reference Report was generated.
- **Specified Total Cost Currency** – The currency in which the Totals have been calculated.
- 1. **Currency Effective Date** – The currency exchange rate is considered as of this effective date.
- 2. **Requestor** – The user who requested for the Rollup calculations.
- 3. **Part Description** – The description of the Part on which the Rollup was calculated.
- 4. **Report Description** – The description of the Report.
- 5. **Referred Cost Template** – The Cost Template (with revision) referred for calculations.
- 6. **Cost Type** – The Cost Type for which report has been generated.
- 7. **Cost Revision Preference** – The state of the cost considered while generating the report.

- **BOM Cost table data.**

Note:-

The BOM Cost data will be generated according to the settings specified in the property file. These Cost data is for the Total Cost Type.

8. **Expand Icon** - This icon is displayed for the Parts in the EBOM that have sub-Parts connected to them.

9. **Intuitive error symbol –**

➤ When the report is generated with Cost Revision Preference set as **Latest &**

any of the assembly subparts does not have a cost then a will be shown in front of that sub part.

- When the report is generated with Cost Revision Preference set as “**Latest Released**” & any of the assembly subparts does not have an active cost for any cost revision or if cost does not exist for the sub part, then a  will be shown in front of that sub part.
- **Type** – This column indicates the Part Type.
- **Level** – This column indicates the level of the Part in the EBOM.
- **Parts** – This is the Name of the Part in the EBOM.
- **Rev** – This field specifies the Part revision.
- **Location** – This field specifies the Location of the Cost object connected with the Part.
- **Location Currency** – This field specifies the Location currency.
- **Value Type** – This field indicates if the Cost is Actual or Estimate or Quoted.
- **Production Make Buy Code** – This field indicates if the Cost is of type Make or Buy.
- **Quantity** – This field indicates the number of Parts in the EBOM.
- **Total Target Cost** – This field indicates the Total Target Cost for the Part.
- **Total Cost** - This field indicates the Total Cost for the Part.
- **Total Quoted Material Cost** - This field indicates the Total Quoted Material Cost for the Part.
- **Total Freight Cost** - This field indicates the Total Freight Cost for the Part.
- **Total Labor Hours** - This field indicates the Total Labor Hours for the Part.
- **Total Labor Cost** - This field indicates the Total Labor Cost for the Part.
- **Total Variable Cost** - This field indicates the Total Variable Cost for the Part.
- **Total Fixed Cost** - This field indicates the Total Fixed Cost for the Part.
- **Total Adjusted Cost** - This field indicates the Total Adjusted Cost for the Part.
- **Icon**  - The Click on this icon opens the **Properties** page for the associated **Cost** object.

If the K suffix value is specified by the user in the emxCostAnalytics properties, the results displayed may not be accurate.

- **Action Links:** These links will be visible only for Total Cost Type
- [Export](#)

Consolidated BOM Cost Rollup Report

On click of the Consolidated Rollup Report link the **Consolidated BOM Cost Rollup report** page is displayed.

The screenshot shows a software interface for generating a Consolidated Rollup Report. At the top, there's a header with the report name, cost type (Total), state (Exists), owner (Bob123 CA), and modification date (Jun 16, 2016 3:16:53 PM). Below the header is a summary table with columns for Report Of Part, Location Preferences, Date Generated, Total Cost Currency, Currency Effective Date, Requestor, Part Description, Report Description, Referred Cost Template, and Cost Type. The main area contains a detailed BOM cost table with columns for Name, Type, Rev, U of M, Quantity, Item Target Cost, Item Quoted Material Cost, Item Freight Cost, and Item Labor. The table shows one row for Part A-0000111-01.

Report Of Part	Location Preferences
A-0000111-01-1	Default, Default, Default, Default

Date Generated	Total Cost Currency
15 Jun 2016 11:18:22 IST	USD

Currency Effective Date	Requestor
15-Jun-2016	Bob123

Part Description	Report Description

Referred Cost Template	Cost Type
Total CostRev 0	Total Cost

Name	Type	Rev	U of M	Quantity	Item Target Cost	Item Quoted Material Cost	Item Freight Cost	Item Labor
A-0000111-01	Part	1	EA (ea...)	1.0	0.00	0.00	0.00	4,485.00

This page contains the following:

- **Header**

- **Report of Part** – This is the Part for which the Rollups were calculated.
- **Location Preferences** – These are the Location preferences that were selected by the user while calculating the Rollups.
- **Date Generated** – This is the date when this Reference Report was generated.
- **Specified Total Cost Currency** – This is the currency in which the Totals have been calculated.
- **Currency Effective Date** – The currency exchange rate is considered as of this effective date.
- **Requestor** – This is the user who requested for the Rollup calculations.
- **Part Description** – This is the description of the Part on which the Rollup was calculated.
- **Report Description** – This is the description of the Report.
- **Referred Cost Template** – This is the Cost Template (with revision) referred for calculations.
- **Cost Type** – The Cost type for which the Report has been generated.

- **Consolidated BOM Cost table data.**

Note: - The BOM Cost data will be generated according to the settings specified in the property file.

These Cost data is for the Total Cost Type.

- **Parts** – This is the Name of the Part in the EBOM.
- **Rev** – This field specifies the Part revision.
- **Type** – Type of the Part
- **Description** – Description of the Part
- **Quantity** – Total Quantity of the Part in the BOM
- **U of M** – Unit of Measure of the Part
- **Item Cost of Material** – Item Material Cost multiplied by the quantity for this Part

- **Item Freight Cost** - Item Material Cost multiplied by the quantity for this Part
- **Item Labor Cost** - Item Labor Cost multiplied by the quantity for this Part
- **Item Variable Cost** - Item Variable Cost multiplied by the quantity for this Part
- **Item Fixed Cost** - Item Fixed Cost multiplied by the quantity for this Part
- **Item Adjusted Cost** - Item Adjusted Cost multiplied by the quantity for this Part
- **Item Total Cost** - Item Total Cost as the sum of all the above costs for this Part

If the K suffix value is specified by the user in the emxCostAnalytics properties, the results displayed may not be accurate.

- Export
- Currency Split.

Multilevel AVL Report

On click of the Multi-Level AVL Cost Rollup report link the **Multi-Level AVL Cost Rollup report** page is displayed.

Report Of Part	B-0000100-01-1	Location Preferences	Default, Default, Default, Default
Date Generated	16 Jun 2016 05:03:12 IST	Specified Total Cost Currency	USD
Currency Effective Date	16-Jun-2016	Requestor	Test Everything
Part Description		Report Description	b100 is active
Referred Cost Template	Total CostRev 0	Cost Type	Total Cost

Name ▲	Type	Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Q
B-0000100-01	Part	0	B-00...	1	Active	France	Euro	Estimate	Make	1

Multi-Level AVL Report with “Latest” revision

This screenshot shows the Multi-Level AVL Report interface. At the top, there's a header bar with various icons and a 'GLOBAL' button. Below it is a detailed report card with fields like 'Cost Type: Total', 'State: Exists', and 'Owner: Bob123 CA'. The main area displays a table of parts with columns for Name, Type, Level, Parts, Rev, State, Location, Location Currency, Cost Value Type, Production Make Buy Code, and Cost Type. Three rows are listed: B-0000103-01 (Part 0), B-0000104-01 (Part 1), and B-0000105-01 (Part 1). The table has a toolbar above it with icons for search, filter, and other operations.

Multi-Level AVL Report with “Latest released” revision

This screenshot is identical to the one above, showing the Multi-Level AVL Report interface. It features the same header, report card, and table of parts. The three rows listed are B-0000103-01, B-0000104-01, and B-0000105-01. The table includes a toolbar with various icons.

The page contains the following

- **Action Links**

Note: - These links will be visible only for Total Cost Type

- [Export](#)

- **Header**

- **Report of Part** – This is the Part for which the Rollups were calculated.

- **Location Preferences** – These are the Location preferences that were selected by the user while calculating the Rollups.
- **Date Generated** – This is the date when this Reference Report was generated.
- **Specified Total Cost Currency** – This is the currency in which the Totals have been calculated.
- **Currency Effective Date** – The currency exchange rate is considered as of this effective date.
- **Requestor** – This is the user who requested for the Rollup calculations.
- **Part Description** – This is the description of the Part on which the Rollup was calculated.
- **Report Description** – This is the description of the Report.
- **Referred Cost Template** – This is the Cost Template (with revision) referred for calculations.
- **Cost Type** – This is the Cost Type for which report has been generated.
- **MEP Preference** – This field indicates the preference given to the MEP cost.
- **Cost Revision Preference** – The state of the cost considered while generating the report.

- **Multi-Level AVL Cost Data**

Note: - The **Multi-Level AVL Cost** data will be generated according to the settings specified in the property file.

These Cost data is for the Total Cost Type.

- **Expand Icon**  - This icon is displayed for the Parts in the EBOM that have sub-Parts connected to them.
- **Level** – This column indicates the level of the Part in the EBOM.
- **Parts** – This is the Name of the Part in the EBOM.
- **Rev** – This field specifies the Part revision.
- **Location** – This field specifies the Location of the Cost object connected with the Part.
- **Location Currency** – This field specifies the Location currency.
- **Value Type** – This field indicates if the Cost is Actual or Estimate or Quoted.
- **Quantity** – This field indicates the number of Parts in the EBOM.
- **Total Cost** - This field indicates the Total Cost for the Part.
- **Total Quoted Material Cost** - This field indicates the Total Quoted Material Cost for the Part.
- **Total Freight Cost** - This field indicates the Total Freight Cost for the Part.
- **Total Labor Hours** - This field indicates the Total Labor Hours for the Part.
- **Total Labor Cost** - This field indicates the Total Labor Cost for the Part.
- **Total Variable Cost** - This field indicates the Total Variable Cost for the Part.
- **Total Fixed Cost** - This field indicates the Total Fixed Cost for the Part.
- **Total Adjusted Cost** - This field indicates the Total Adjusted Cost for the Part.

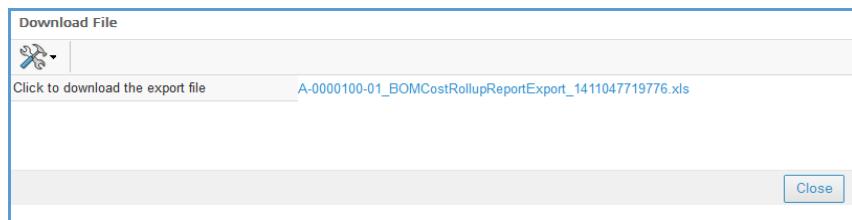
- **Icon**  - The Click on this icon opens the **Properties** page for the associated **Cost** object.
- **MEP Cost Name:** This field indicates the name of the MEP cost.
- **MEP Name:** This field indicates the name of MEP Part.
- **MEP Manufacturer:** This field indicates the name of the manufacturer.
- **MEP Preferences:** This field indicates the preference given to the MEP cost.
- **Intuitive error symbol –**
 - When the report is generated with Cost Revision Preference set as **Latest &**  any of the assembly subparts does not have a cost then a  will be shown in front of that sub part.
 - When the report is generated with Cost Revision Preference set as “**Latest Released**” & any of the assembly subparts does not have an active cost for any cost revision or if cost does not exist for the sub part, then a  will be shown in front of that sub part.

Export

When you click on **Export** from **Actions** Menu, a dialog giving the option to download the exported .xls file will appear. You can save the file to the local disk, or can click on the link and directly view the exported file in the browser.

The exported file contains two sheets,

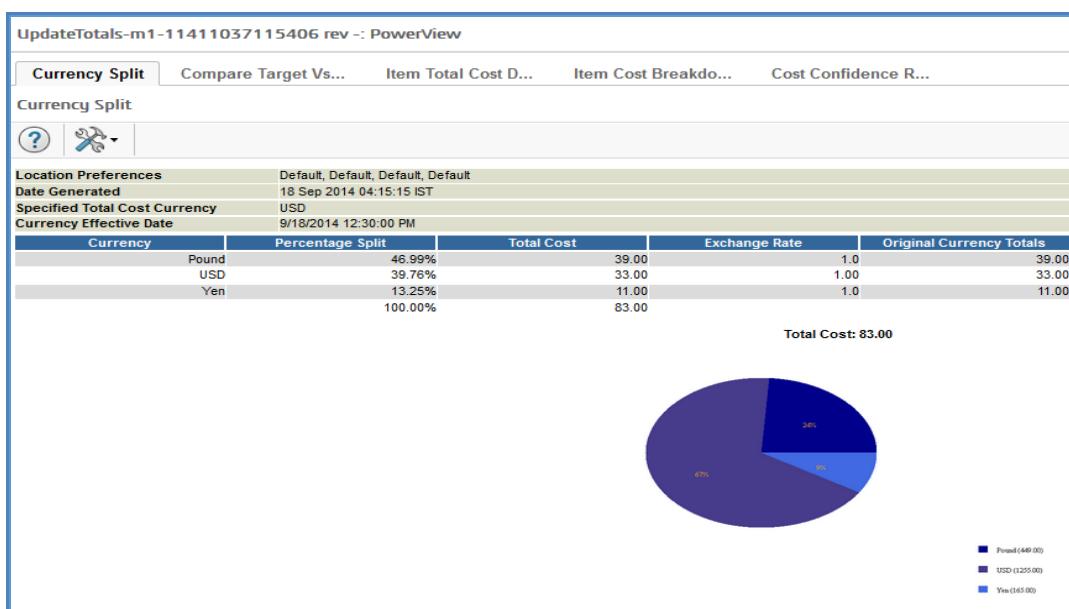
- Sheet 1 contains the header information and the exported data along with all the item level attributes.
- Sheet 2 contains all the Currency split data.
-



Currency Split

When you click on **Currency Split** Action link, a dialog with all the Currency Split details opens. This display of Chart is Configurable. If you set

emxCostAnalytics.BOMCostRollupReport.chartType value to Kava, Kava chart will be visible else Svg chart is visible.



The Currency split page contains a currency split header and data. This table lists the different currencies, the percentage of each currency in the Total Cost, the exchange rates, Pie chart etc. At the moment the Pie Chart is displayed only for the hierarchical BOM Cost Rollup Report.

- **Header**
 - **Location Preferences** – These are the Location preferences that were selected while calculating the Rollups.
 - **Date Generated** – The date when the Reference Report was generated.
 - **Specified Total Cost Currency** – The currency in which the Totals have been calculated.
 - **Total Cost** – If this report is obtained from the Consolidated BOM Cost Report, then the total cost of the assembly is displayed in the header.
 - **Currency Effective Date** – The currency exchange rate is considered as of this effective date.
- **Currency Split table data.**
 - **Currency** – These are the different currencies used in Parts of this EBOM.
 - **Percentage Split** – The percentage contribution of each currency in the Total Cost of the main Part.
 - **Total Cost** – The Total Cost of each currency converted in the specified Total Cost Currency.
 - **Exchange Rate** – Specifies the exchange rate for the currency.
- **Original Currency Totals** – The Summation of ‘Total Cost’ of an individual each currency.

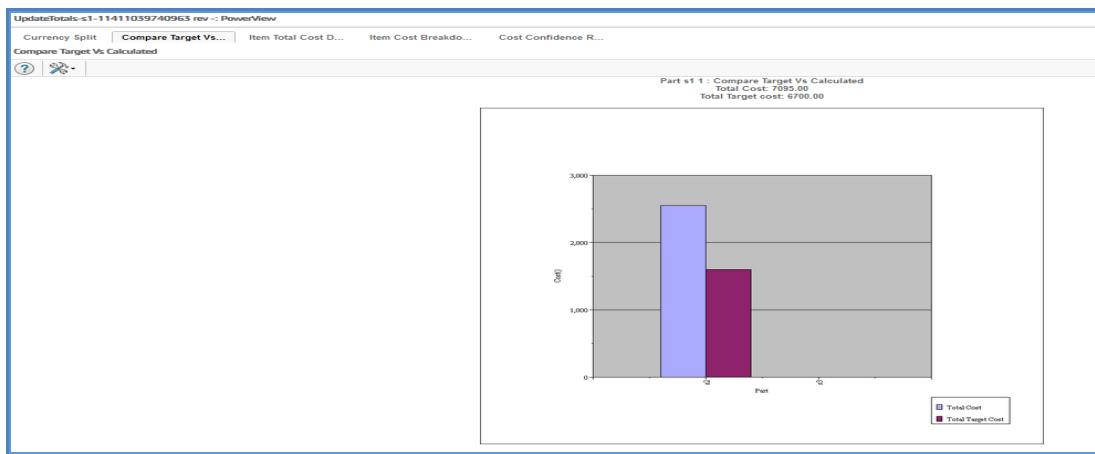
Compare Target Vs Calculated Report

This report shows a comparison of Target Costs and Calculated total Costs. This display of Chart is Configurable. If you set emxCostAnalytics.BOMCostRollupReport.chartType value to Kava, Kava chart will be visible else Svg chart is visible:

To generate Compare TargetVsCalculated Cost Report –

1. Select a part and click “**Compare Target Vs Calculated**” tab from the second channel.
2. If the selected Part does not have any subparts, then you get an alert message that the Report cannot be generated for a leaf level Part.
3. The graph shows the comparison of the **Total cost** Vs the **Total Target cost** for each of the next level sub-parts of the selected **Part**.
4. If the number of sub-parts is very large, then only first 25 sub-parts are shown in the graph. To get clear charts, the number of subparts to be included in the Kava Charts should be lower. Currently this value is 25; it can be changed to a lower value so that clear graphs can be seen.
5. If any of the Parts at same/sublevels does not have Cost objects, a message is shown that the report cannot be generated.

If the value in property file is not Kava, SVG bar chart is visible.



Item Cost Breakdown Report

This display of Chart is Configurable. If you set emxCostAnalytics.BOMCostRollupReport.chartType value to Kava, Kava chart will be visible else Svg chart is visible:

Note: - This feature is applicable only for Total Cost type.

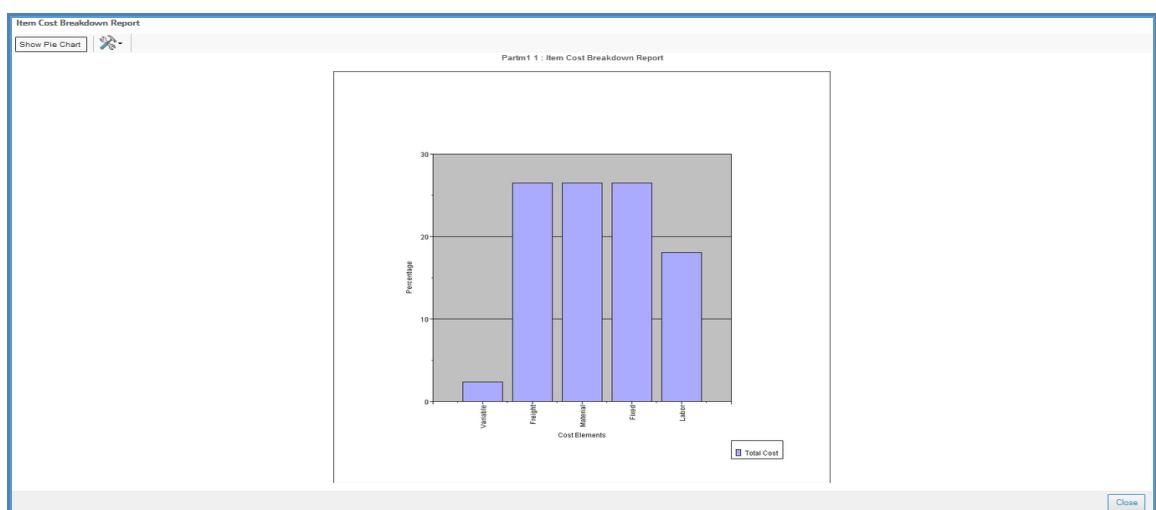
To generate Item Cost breakdown Report –

- Select a Part and click **Item Cost Breakdown report** tab from the second channel.
- Options of the cost elements to be considered for comparison are shown. These options are configurable in the Property file.
- Select the cost elements to be included in the breakdown report generation.

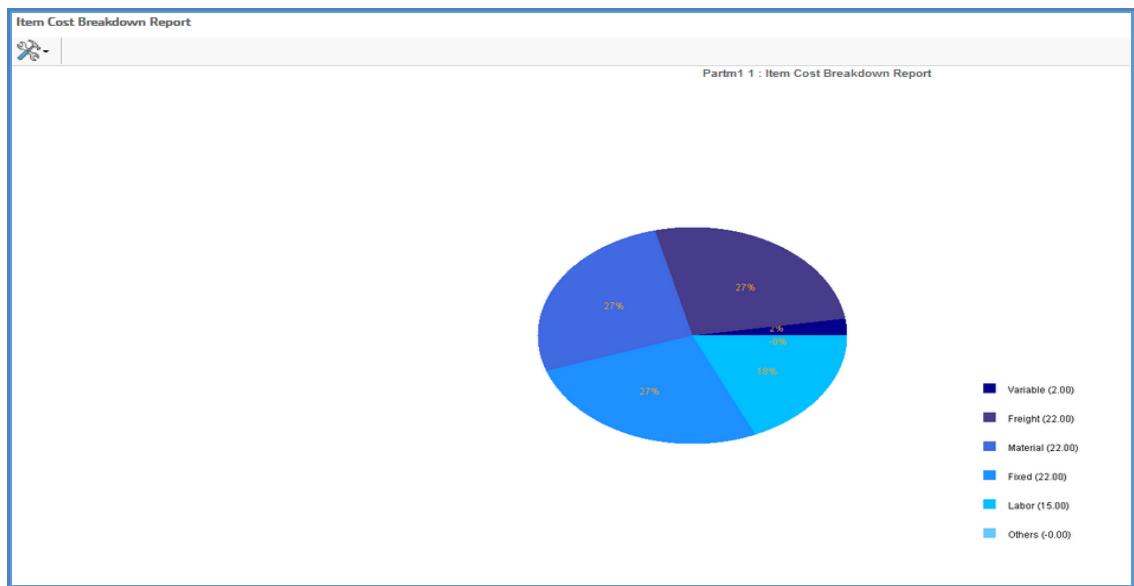
The screenshot shows the 'UpdateTotals-m1-11411037115406 rev -: PowerView' interface. The top navigation bar includes 'Currency Split', 'Compare Target Vs...', 'Item Total Cost D...', 'Item Cost Breakdo...', and 'Cost Confidence R...'. Below the navigation bar, the title 'Part m1 rev 1: Properties' is displayed. On the left, there's a toolbar with icons for globe, wrench, and dropdown. A section titled 'Cost Elements for Rollup' contains a list of checkboxes: 'All' (unchecked), 'Material' (checked), 'Freight' (checked), 'Labor' (checked), 'Variable' (checked), and 'Fixed' (checked). A note at the top of this section says 'Fields in red italics are required'.

- Depending on the **cost elements** selected, the graph shows the contribution of each type of **Cost** element to make up the **Total cost** of the selected **Part**.
- If the selected Part does not have Cost objects, a message is shown that the report cannot be generated.

If the value in property file is not Kava, Svg bar chart is visible.



On clicking on **show pie chart** command we get the following result,

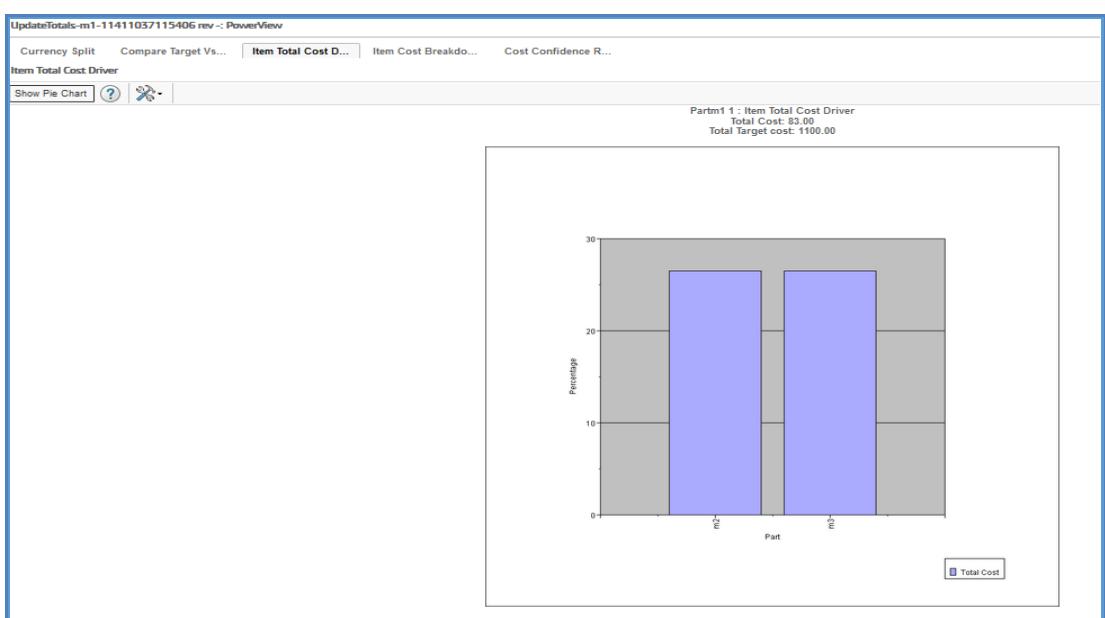


Item Total Cost Driver Report

This display of Chart is Configurable. If you set emxCostAnalytics.BOMCostRollupReport.chartType value to Kava, Kava chart will be visible else Svg chart is visible:

To view **Item Total Cost Driver Report**.

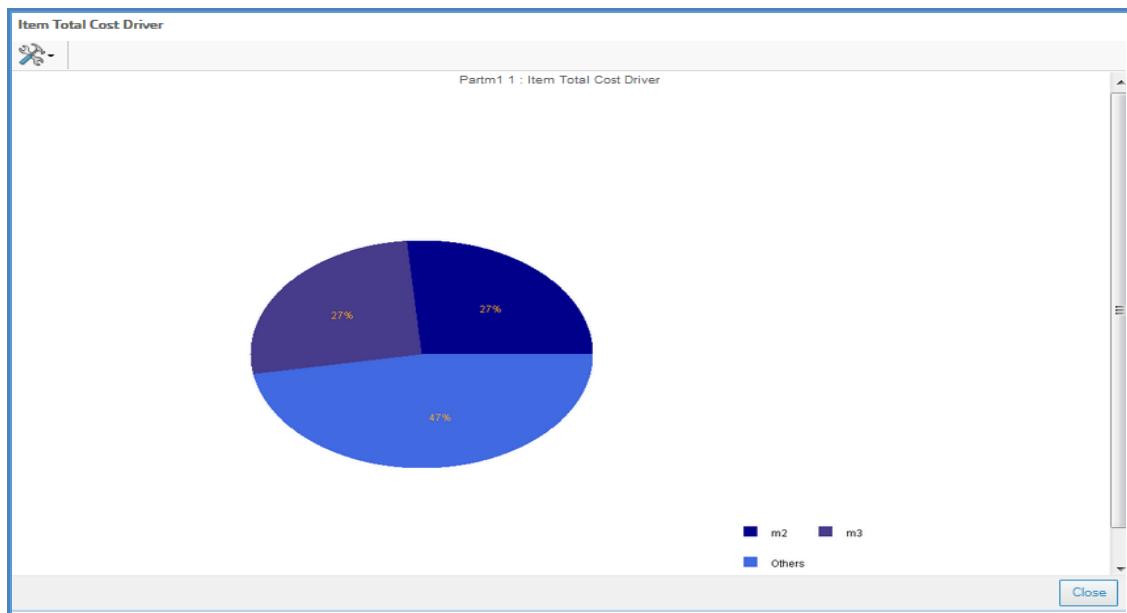
- Selects a Part and click **Item Total Cost Driver** tab from the second channel.



- If the selected Part does not have any subparts, then an alert is shown saying that the Report cannot be generated for a leaf level Part.
- The graph shows the contribution of each sub-part to make up the **Total cost** of the selected parent **Part**.
- If any of the Parts at same/sublevels do not have Cost objects, a message is shown that the report cannot be generated.

If the value in property file is not Kava, Svg bar chart is visible.

The link ‘Show Pie Chart’ will display the Pie Chart view of the same part.



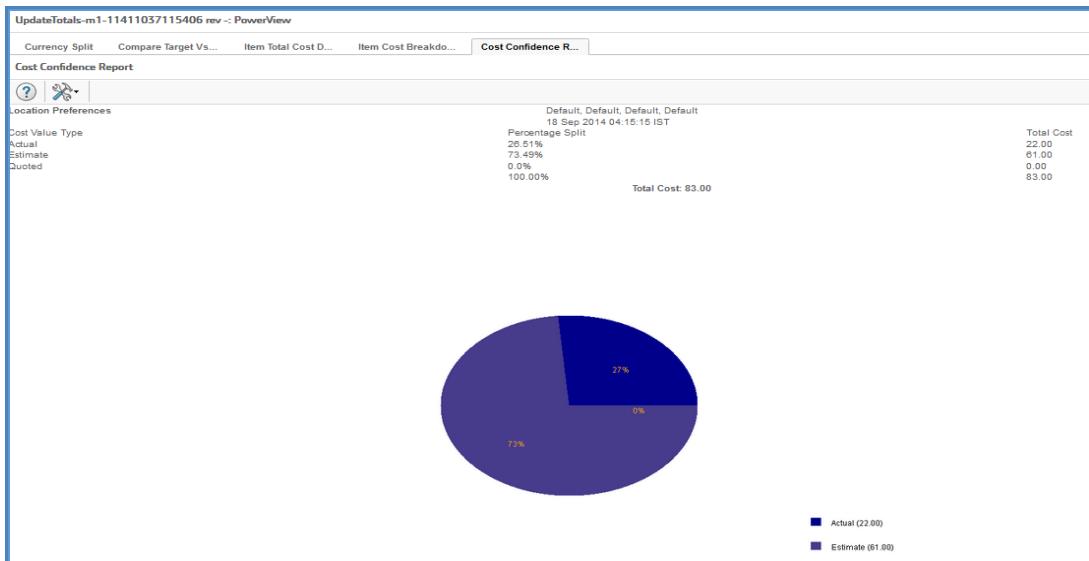
Cost Confidence Report

This display of Chart is Configurable. If you set emxCostAnalytics.BOMCostRollupReport.chartType value to Kava, Kava chart will be visible else Svg chart is visible:

Note: - This Feature is applicable only for Total Cost Type.

To generate **Cost Confidence Report**-

- Click on **Cost Confidence Report** tab from the second channel.
- The graph shows the percentage contribution of each cost value type to make up the **Total cost** of the parent **Part**.



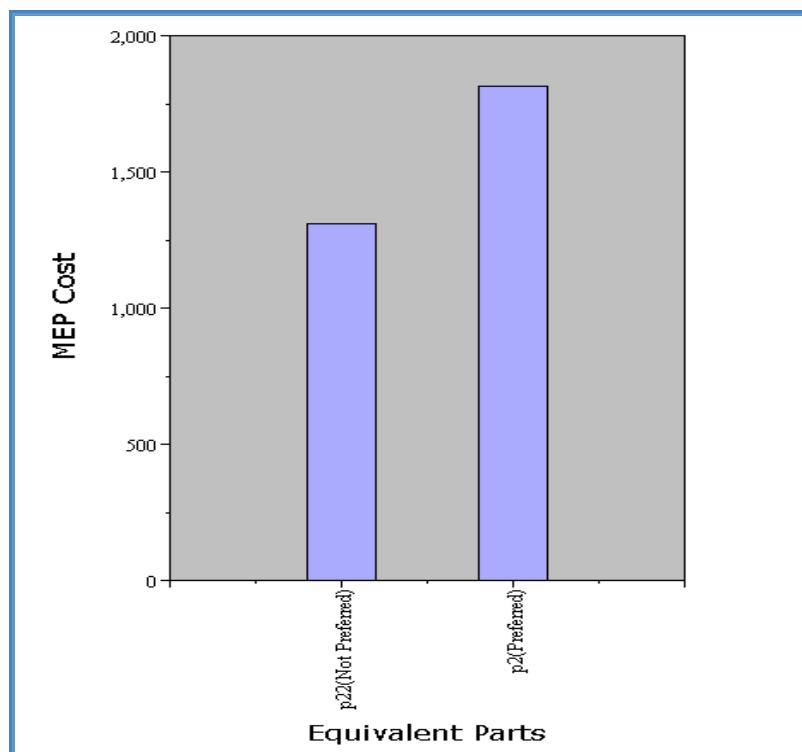
Compare MEP Cost Report

This display of Chart is Configurable.

Note: - This Feature is applicable only for MEP Cost Type

To generate **Compare MEP Cost Report**.

- Click **Compare MEP Cost tab** from the second channel.
- The graph shows comparison of several MEP cost connected to the MEP part.

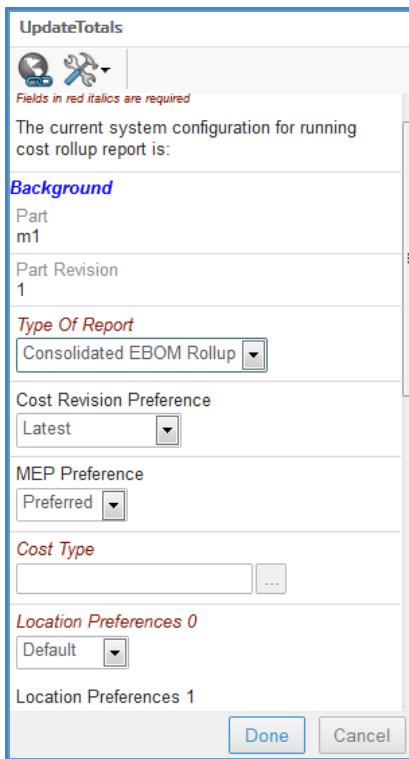


Creating BOM Cost Reports

To create BOM/EBOM rollup reports, you use the Update Totals command, which brings up a window in which you specify the parameters for creating the report.

To run the **Update Totals** for an **EBOM**:

2. From page toolbar of the Cost Summary Page, click **Actions > Update Totals**



3. A page slides in, which includes the following details:

- Displays the Current System Configuration – background or foreground. Its value is set in the properties file.
- **Part** – The name of the Part
- **Part Revision** – The revision of the Part.
- **Type of Report** - The type of report to be generated.
 - Multi-Level EBOM Rollup,
 - Consolidated EBOM Rollup
 - Multi-Level AVL Report.
- **MEP Preferences** – Needs to be entered while creating Multi Level AVL Report.
- **Cost Revision Preference** – The state of the cost considered while generating the report. If report needs to be generated with the cost objects in Create state then Cost Revision Preference set as “**Latest**” would generate the report successfully,

while in case of “**Latest Released**” the report is generated without any errors if cost objects are in Active state.

- **Cost Type** - The type of cost for which to roll up Costs.
- **Location Preferences 0 through 3.** The Locations for which to roll up Costs. You must define Location Preference 0, but you may let Location Preferences 1-3 default to the default Cost, no matter what Locations are defined for it.
- **Total Cost Currency.** The currency in which to display the total cost. The default value of Total Cost Currency is defined in the Property file.
- **Currency Effective Date.** Click either the Description option or the Currency Effect Date option to specify the currency to be chosen. If you choose Description, you must choose from a list of descriptions on the pull-down menu. If you choose Currency Effective Date, click the ellipsis to choose a date. You can view the currencies and exchange rates defined in your system by clicking on [Currency Exchange Rates](#).

4. Click **Done**.
5. When **Update Totals** finishes running, it creates a report and attaches it as a Reference Report to the default Cost for the Part. If the process runs in the foreground, you will see the report come up on your screen. If the process runs in the background, you will receive an email or icon-mail on your system.
6. If Update Totals detects any errors, such as missing currency exchange rates or errors encountered during calculations, it will list them in the Error Report.

The following points need to be taken care of before running the Update Totals

- If the attribute **Include Children in Rollup** is **No** for any Part, the **sub parts are not included in the rollup calculations**.
- If the attribute **Production Make Buy Code** has value **Buy**, the **sub parts will not be included in the rollup calculations**.
- The **Cost Report Comments** that will be entered, is the **Description** of the **Reference Report** that will be created.
- In case of Cost Revision Preference set to “Latest Released”, if the part on which the **Update Totals** was run, does not have any **Active** cost objects of the specified cost type, or does not have any cost objects of the specified cost type at all, **Update Totals** cannot be performed.
- The “Multi Level AVL Report” is generated only for “MEP Cost” type.

Comparing Two BOM Cost Rollup reports

You can compare two hierarchical BOM cost rollup reports with the command **Compare Reports**. The comparison report will use the report with the earlier date as the base and compare the later report with it. The following symbols are used to show differences, additions, and deletions between the two reports:

- Changed
- Removed
- Added
- Cost Added
- Cost Removed

The screenshot shows a software interface for comparing two BOM Cost Rollup reports. At the top, there are two header sections for the reports, each with various configuration parameters like Date Generated, Cost Currency, Requestor, and Report Description. Below these headers is a toolbar with various icons for file operations and data filtering. The main area contains a table with two rows of data. The first row has four columns: Level, Parts, Rev, and State. The second row has five columns: Location, Location Currency, Cost Value Type, Production Make Buy Code, Quantity, and Total Target Cost. The data in the table includes part numbers, revision levels, creation details, and cost information across different locations and currencies.

Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total Target Cost
- 0	A-00...	1	Create Japan ...	Yen	Euro	Estimate	Make	1.0	8.60 10.00
+ 1	A-00...	1	Create Japan ...	Yen	Euro	Estimate Actual	Make	1.0	6.40 0.00
+ 1	A-00...	1	Create Japan	Yen		Estimate	Buy	1.0	0.00
+ 1	A-00...	1	Create France	Euro		Estimate	Make	1.0	0.00 10.00

The page has the headers of both the reports being compared. For details of columns in the header section The first column in the table shows the symbol specifying the change at that level.

Comparing Two BOM Cost Rollup reports across Parts

The comparison facility of two **BOM Cost Rollup reports across parts** is provided by the **Compare Reports Across Parts** link for the Hierarchical BOM Cost Rollup Report. You need to select one report that needs to be compared and the second one from the search results of **compare reports across parts** link.

To Compare Reports across Parts:

1. From the Reference Reports summary page select one report
2. Click on **Compare Reports across Parts** link and specify the details in the full search Page.
3. Click **Search** to perform the search.
4. Select a report from the listed items as the **second report** to be compared.
5. Click **Submit** to perform the comparison across the selected reports.

Report Of Part		A-0000111-01-1		Location Preferences		Default, Default, Default, Default			
Date Generated		15 Jun 2016 11:17:49 IST		Specified Total Cost Currency		USD			
Currency Effective Date		15-Jun-2016		Requestor		Bob123			
Report Description				Referred Cost Template		Total CostRev 0			
Cost Type		Total Cost		Cost Revision Preference		Latest			
Report Of Part		A-0000100-01-1		Location Preferences		Default, Default, Default, Default			
Date Generated		15 Jun 2016 11:35:00 IST		Specified Total Cost Currency		USD			
Currency Effective									
Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total Target Cost
0	A-00...	1	Create	Japan	Yen	Estimate	Make	1.0	0.00 8.60
1	A-00...	1	Create	Japan	Yen	Estimate	Make	1.0	6.10
1	A-00...	1	Create	Japan	Yen	Estimate	Buy	1.0	0.00
1	A-00...	1	Create	France	Euro	Estimate	Make	1.0	0.00

Comparing Two Multi Level AVL reports

The comparison facility of two **Multi Level AVL reports** is provided by the **Compare Reports** link from the **Actions** Menu for the Multi Level AVL Report. You need to select the two reports that are to be compared. The differences shown are keeping the report with earlier date as base. The difference, additions and deletions in the two reports are shown using different symbols.

- Changed
- Removed
- Added
- Cost Added
- Cost Removed

The page has the headers of both the reports being compared. The first column in the table shows the symbol specifying the change at that level.

Currency Split													
Report Of Part		D-0000101-01-1											
Date Generated		09 Jul 2015 12:13:56 IST											
Currency Effective Date		Jul 6, 2015											
Report Description													
Cost Type		Total Cost											
MEP Preference		Preferred											
Report Of Part		D-0000101-01-1											
Date Generated		09 Jul 2015 12:41:09 IST											
Currency Effective Date		Jul 9, 2015											
Report Description													
Cost Type		Total Cost											
MEP Preference		Preferred											
Level		Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total Target Cost	Total Cost	Total Quoted Material Cost	Total Freight Cost
0		D-000...	1	Create	London	Pound	Actual	Make	1.0	11.00K	17.57K	4,900.00	350.00
1		D-000...	1	Create	New Y...	USD	Actual	Make	1.0	10,000.00	15.93K	4,500.00	300.00

Comparing Two Multi Level AVL reports across Parts

The screenshot shows the 'Currency Split' interface with two reports listed:

Report Of Part		D-0000101-01-1	Location Preferences		Los Angels, Milan, Default, Default	
Date Generated	Jul 06, 2015 12:13:56 IST	Specified Total Cost Currency	USD	Requestor	Test Everything	
Currency Effective Date	Jul 6, 2015	Referred Cost Template	Total CostRev 0	Cost Revision Preference	Latest	
Report Description						
Cost Type	Total Cost					
MEP Preference	Preferred					
Report Of Part		D-0000102-01-2	Location Preferences		Default, Milan, Los Angels, Default	
Date Generated	09 Jul 2015 12:47:47 IST	Specified Total Cost Currency	USD	Requestor	Test Everything	
Currency Effective Date	Jul 9, 2015	Referred Cost Template	Total CostRev 0	Cost Revision Preference	Latest	
Report Description						
Cost Type	Total Cost					
MEP Preference	Preferred					

Level	Parts	Rev	State	Location	Location Currency	Cost Value Type	Production Make Buy Code	Quantity	Total Target Cost	Total Cost	Total Quoted Material Cost	Total Freight Cost						
-	0	0	0	Great..	London..	Pound	USD	Actual	Make	1.0	41,000K	10,000.00	47,874K	1...	4,800.00	4,500.00	260.00	300.00
+	0	0	0	Create..	New-Y..	USD	USD	Actual	Make	1.0	40,000.00	46,834K	4,500.00	200.00	200.00	200.00	200.00	

The comparison facility of two **Multi Level AVL reports across parts** is provided by the **Compare Reports across Parts** link for the Hierarchical BOM Cost Rollup Report. You need to select one report that needs to be compared and the second one from the search results of **Compare Reports Across Parts** link.

To Compare Reports across Parts:

1. From the Reference Reports summary page , select one report
2. Click on **Compare Reports Across Parts** link and specify the details in the full search page.
3. Click **Search** to perform the search.
4. Select one of the listed items as the second report to be compared.
5. Click **Submit** to perform the comparison across the selected reports.

Currency Split for Report Comparison

The currency details of the two Rollup reports being compared are shown on this page. Page shows “**Currency Split**” details for both the files.

Currency Split MultiLevelRVLReport-D-0000101-01-11436165061396					
Location Preferences	Los Angeles, Milan, Default, Default				
Date Generated	08 Jul 2015 12:13:56 IST				
Specified Total Cost Currency	USD				
Currency Effective Date	7/8/2015 12:30:00 PM				
name rev revision: Structure View					
Currency ▾	Percentage Split	Total Cost	Exchange Rate	Original Currency Totals	
	100.00%	17.57K			
Pound	7.05%	1,240.00	1.0	1,240.00	
USD	92.94%	16.33K	1.00	16.33K	
Currency Split MultiLevelRVLReport-D-0000101-01-11436425898545					
Location Preferences	Default, London, Los Angeles, New York				
Date Generated	08 Jul 2015 12:41:09 IST				
Specified Total Cost Currency	USD				
Currency Effective Date	7/9/2015 12:30:00 PM				
name rev revision: Structure View					
Currency ▾	Percentage Split	Total Cost	Exchange Rate	Original Currency Totals	
	100.00%	17.57K			
Pound	7.08%	1,240.00	1.0	1,240.00	
USD	92.94%	16.33K	1.00	16.33K	

Cost Change History Report

You can track the history of cost changes by analysing BOM cost rollup reports generated for the top level part of an assembly. Before creating a history report, you should ensure that all BOM cost rollup reports were created with the same Location Preferences and have the same currency for Total Cost Currency.

To create a Cost Change History Report:

- From the Reference Report summary page, click **Actions > Cost Change History Report**
- Cost Change History Report Criteria page slides in.
- Specify the **Start Date**, **End Date** and **Type of Report**.

Cost Change History Report Cri...

Fields in red italics are required

Start Date

End Date

Type Of Report

Multi Level EBOM Rollup
 Consolidated EBOM Rollup
 Multi Level AVL Report

Total Cost Currency

Done **Cancel**

- The Cost Change History Report is displayed, which lists historical information for the BOM for the specified date range. For each Part, the report lists the Location and Cost for the date that the cost changed.

The screenshot shows a table titled "Cost Change History Report | Filter: Total Cost". The table has two header rows: the first shows dates "15 Jun 2016 11:35:00 IST" and "15 Jun 2016 04:06:28 IST"; the second shows columns for "Name", "Location", "Cost", "Location", and "Cost". The main body of the table contains four rows of data for part A-0000100-01, showing its movement between Japan and France with varying costs.

Cost Change History Report Filter: Total Cost				
	15 Jun 2016 11:35:00 IST	15 Jun 2016 04:06:28 IST		
□ Name ▲	Location	Cost	Location	Cost
□ A-0000100-01	Japan	68.32K	France	64.80K
+ □ A-0000101-01	Japan	29.47K	France	28.15K
+ □ A-0000102-01	France	24.79K	France	25.84K
+ □ A-0000103-01	Japan	5,453.00	Japan	5,453.00

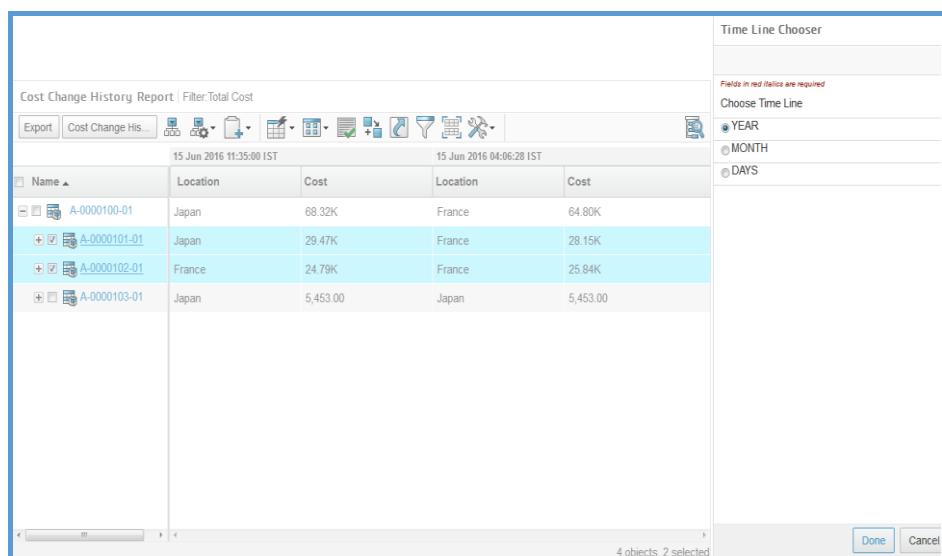
You may select different Cost attributes from the pull-down menu in the top right.

Export

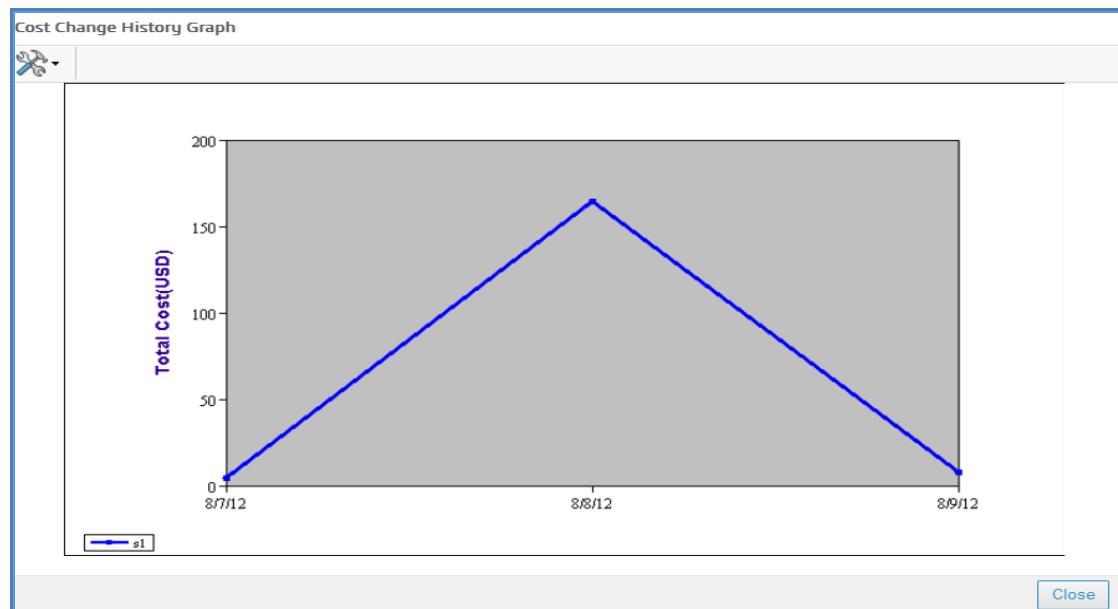
When you click on **Export**, a dialog giving the option to download the exported .xls file will appear. You can save the file to the local disk, or can click on the link and directly view the exported file in the browser.

Cost Change History Graph in Kava Chart

When you click on **Cost Change History in Kava Chart**, a Time Line Chooser is displayed from which you need to select YEAR, MONTH or DAYS.



- On click of **Done**, the graph will be displayed showing variations of a particular cost across various reports. Each part is shown in unique colour. X-Axis shows the date and time when the report was generated and Y-Axis shows the Cost and the Currency in which report was generated.



BOM Management for Cost Analyst

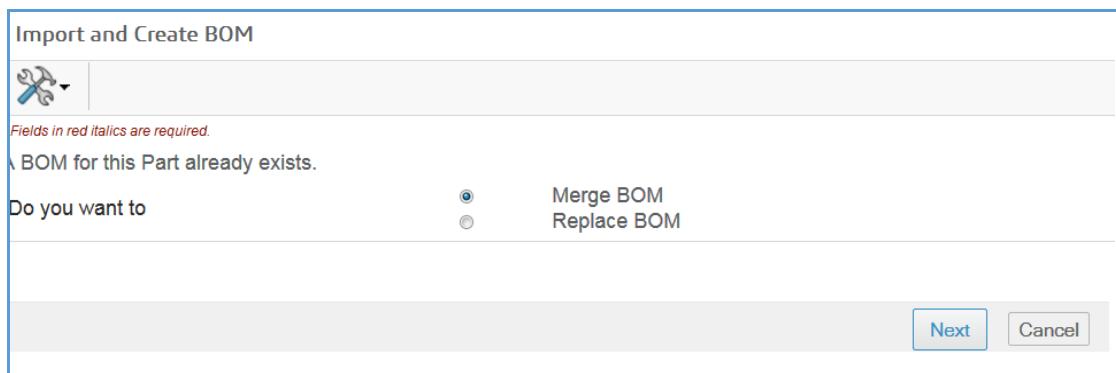
Cost Analysts can import data from spreadsheets such as Excel to create both EBOMs and Costs for a Part. A Part must have a Policy set to “Cost Part” in order to have an EBOM defined for it.

In this section:

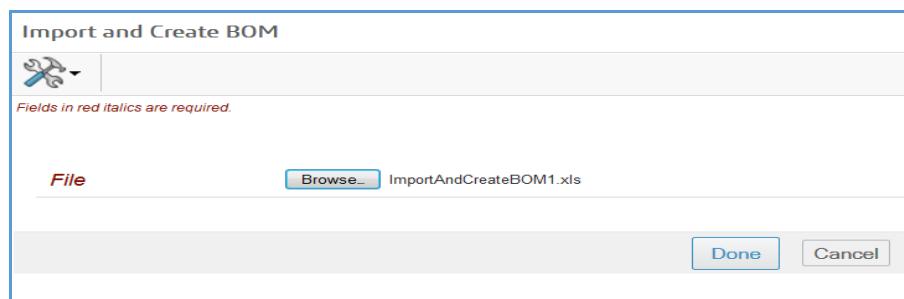
- [Import and Create BOM](#)
- [Creating a Cost Part](#)
- [Creating Import Files](#)
- [Importing and Creating BOM](#)
- [Exporting Mass Part Cost](#)

Import and Create BOM

1. Go to the Part under which you want to import BOM. Refer to [Searching for Parts](#).
2. Click on **Categories > BOM PowerView**.
3. Click on **Edit All** link to enable the **Actions** link.
4. Click **Import and Create BOM** link from the **Actions** Menu of the **Engineering Bill Of Materials** page. If the **Part** does not have any **EBOM** connected to it, you will be prompted for the file from which the **EBOM** has to be imported.



5. The file provided must be in **xls** format. Refer to section Pointers to Import Files for details of the file required for **Import and Create BOM**.
6. If an EBOM already exists for the given Part, a dialog to Merge the new EBOM with the existing or to replace the existing EBOM is provided.
7. If you choose to **merge** the **EBOM**, only the new entries are added to the existing **EBOM**. On selecting the **Replace** option, the existing **EBOM** is totally replaced with the new one.



8. Clicking **Next** would give the choice to select file.
9. After **Merge** or **Replace** the validation screen will be displayed, where the data in the XLS file is validated.

Import And Create BOM

Mass Edit | 

Select the Icons for Mass Edit

<input type="checkbox"/>  Invalid Attribute value.	<input type="checkbox"/>  Invalid Level of Part.
<input type="checkbox"/>  Ref Des not unique.	<input type="checkbox"/>  Ref des not Alpha Numeric or Invalid.
<input type="checkbox"/>  Quantity must Match Number of Ref Des Components.	<input type="checkbox"/>  Cannot Connect To Same Part.
<input type="checkbox"/>  Find Number not unique for this Part.	

Mandatory not Specified	Invalid value	Not Numeric								
Part Name	Part Revision	Part Type	Level	F/N	Ref Des	Component Location	Qty	U of M	Usage	Description
A-0000105-01	1	Part	1.0	11.0		London	1.0			Sub-Part - 1
A-0000106-01	1	Part	2.0	11.0		Tokyo	1.0			Sub-Part - 2

The following error checking is performed while importing the BOM.

	If there is same part at level n and n+1 then this icon will be displayed. It indicates that a part can't connect to same part. E.g if Level 3 has some part then level 4 cannot have that same part.
	Cannot modify BOM with EC part policy. E.g if a part with EC part policy exists at level 3 then all parts below this level have to be skipped
	It shows that part is going to be ignored. This works with above error (Icon ).
	Find number is not unique. Same Find Number exists at same level in XLS sheet OR If it is 'Merge' then Same Find Number exists at same level in EBOM or XLS.
	Invalid level in XLS sheet. Parent level should be present before child level and first level in the XLS should be one.
	Invalid part type. If type mentioned in the XLS is not any sub type of 'Part'.
	Quantity must match number of Reference Designator components.
	Revision sequence is invalid.
	Part already exists in database.
	Reference Designator is not alphanumeric. Valid Reference Designator is r1-r4 or r5, r6.
	Reference Designator not unique. Same Reference Designator exists at same level in XLS sheet OR If it is 'Merge' then Same Reference Designator exists at same level in EBOM or XLS.

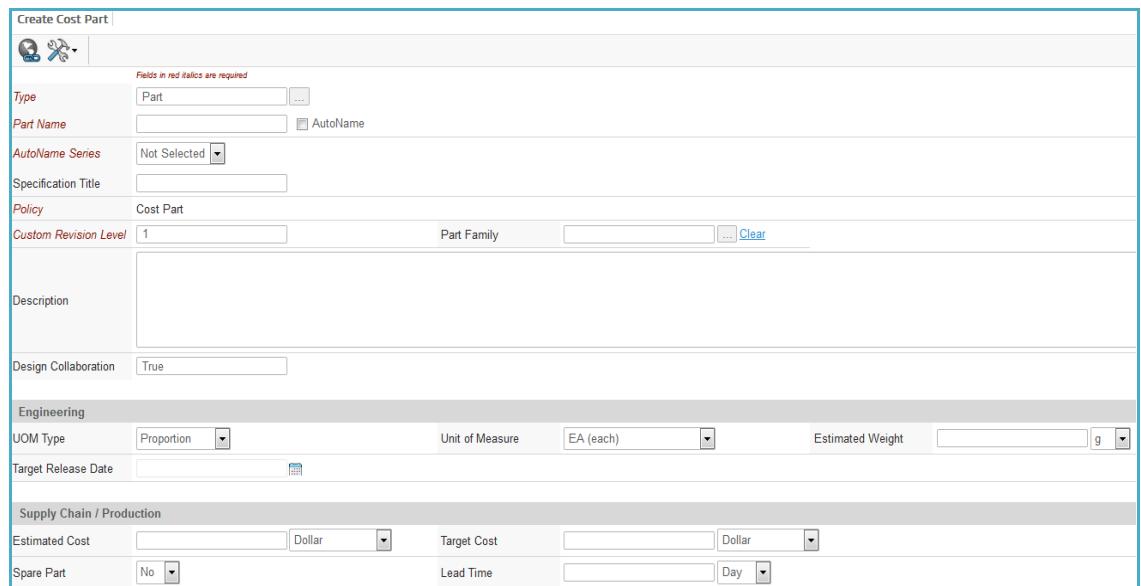
	<p>Part has invalid attribute values. Please edit the attribute(s) and fill valid values. With this icon all invalid values of attributes are shown in a different color cell.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 20px; height: 20px; background-color: pink;"></td><td>Mandatory Attribute's value is missing.</td></tr> <tr> <td style="text-align: center; width: 20px; height: 20px; background-color: lightgreen;"></td><td>Specified attribute value is Invalid.</td></tr> <tr> <td style="text-align: center; width: 20px; height: 20px; background-color: lightblue;"></td><td>For a numeric attribute, a non-numeric value is specified.</td></tr> </table> <p>These colors are configurable in Property file (CostAnalytics.properties).</p>		Mandatory Attribute's value is missing.		Specified attribute value is Invalid.		For a numeric attribute, a non-numeric value is specified.
	Mandatory Attribute's value is missing.						
	Specified attribute value is Invalid.						
	For a numeric attribute, a non-numeric value is specified.						

10. Click **done** to create the **EBOM**.

Creating a Cost Part

The Create Part page allows **Cost Analyst** to create a new **Cost Part**. You can create **Part** with new **Policy 'Cost Part'**.

1. From the global toolbar, click  > **Engineering>Create Cost Part**.



2. Enter the attribute required to create the **Cost Part**. The fields in red italics are the mandatory attributes required for creation of the **Part**.
 - **Type**. Type of object being created is a Part or subtypes of Part.
 - **Name**. Type a unique part name into the Name text box.
 - **Revision**. Revision of the Part being created is 1 by default
 - **Policy**. The Policy of Part being created is Cost Part.

- **Description.** Type concise details that describe the new part. Type any alphanumeric characters (numbers, letters, or allowed symbols).
- **Estimated Cost.** Type the estimated cost on a per part basis.
- **Lead Time.** From the drop-down list, select the time that it will take to manufacture the part.
- **UOM Type.** Select a type of measure from the drop-down list (Area volume, Liquid volume, etc.)
- **Unit of Measure.** Select a unit of measure from the drop-down list: EA(each), Batch.
- **Estimated Weight.** Type the weight of the part.
- **Spare Part.** Select Yes or No from the drop-down list to specify whether the part is to be used as a spare.
- **Target Cost.** Type the target cost on a per part basis.

3. When you have filled in all necessary fields, click **Done**.

Creating Import Files

You can perform **Import and Create BOM** and **Import Mass Part Cost** to import bulk data into the system. Following section describes the template required to be created for Import and pointers for the columns in the Import files .

Importing and Creating BOM

	Level	F/N	Ref Des	Component Location	Part Name	Rev	Part Type	Description	Qty	U of M	Usage
	1	1		A	RyFinal_Part_Level1_1_Sys	A	Part	8.5 x 11 Tray	1	FT (feet)	Standard
	2	2		B	RyFinal_Part_Level2_1_Sys	A	Part	Small Tray	5	FT (feet)	Standard
	3	3		B	RyFinal_Part_Level3_1_Sys	A	Part	Bearing	7	FT (feet)	Standard
	2	4		C	RyFinal_Part_Level2_1_Sys	A	Part	Roller	3	FT (feet)	Standard
	3	5		B	RyFinal_Part_Level2_1_Sys	A	Part	Universal Joint	4	FT (feet)	Standard
	2	6		B	RyFinal_Part_Level1_1_Sys	A	Part	Roller	5	FT (feet)	Standard

In the data sheet, the following fields are to be entered.

- **Level:** This field specifies the level of the corresponding **Part** in the **EBOM**. This is a mandatory, positive (non zero) field. Care should be taken that every part has a corresponding Parent part. Thus always the entry in the first entry in the file should be 1.
- **Find Number:** This field specifies the unique identifier of the **Part** in an **EBOM**. It is a mandatory, positive (non zero) numeric attribute. It should be unique for an **EBOM**.
- **Reference Designator:** The Reference Designator ID is used on Printed Circuit Cards to indicate the location an electronic component that is to be inserted. Reference Designators are usually values like R1, R2, R7 or C1, C5 (R for resistor and C for capacitor).
- **Component Location:** This is Similar to Reference Designator, but is used to give additional location information and/or can be used by industries other than electronics. For example, it can be used to indicate which motor is failing all the time, the one by the window or the one by the furnace.
- **Part Name:** This field specifies the name of the **Part** in the **EBOM**. It may be a name of **Part** that already exists in the database, or any other name. If Part does not exist in the database, a new Part of the given name will be created.
- **Rev:** This field specifies the revision of the **Part** in the **EBOM**.
- **Part Type:** This field indicates the **Type** of object.
- **Description:** Details concerning the part.
- **Qty:** The quantity of the selected part included in the **EBOM**. This is a positive (non zero) numeric value. If no value is entered for this field, it will be taken as 1.

- **U of M (Unit of Measure):** LB(pound), IN(inch), GA(gallon), FT(feet), EA(each).
- **Usage:** Standard, Reference, Per Sales Order, or As Required.

The below scenarios are considered for Import and Create BOM.

- **Scenario 1:** Cost Part cannot be connected to an EC Part.

For example:

Import File contains,

Level	Part#	Policy
1	P1	Cost Part
2	P2	EC Part
3	P3	Cost Part
4	P4	Cost Part
2	P7	Cost Part

So on import the Part P3 will not be connected to P2, it will skip P3 and its BOM. So final assembly after import will be

Level	Part#	Policy
1	P1	Cost Part
2	P2	EC Part
2	P7	Cost Part

- **Scenario 2:** Repeated Parts with same Find Number or Reference Designator should be skipped based on the property file settings.

Part P0 with assembly

Level	Part#	F/N	Reference Designator
1	P1	1	a1
1	P2	2	b2

Import File contains,

Level	Part#	F/N	Reference Designator
1	P1	3	a1
1	P1	1	a2
1	P1	1	a1
1	P1	2	a2

Case 1:

emxEngineeringCentral.EBOMUniquenessOperator = OR

Then from the import file

Row 1, 2, 3 will be skipped and Row 4 will be added.

It checks either the Find Number or Reference Designator for uniqueness.

So after import P0 assembly will look like

Level	Part#	F/N	Reference Designator
1	P1	1	a1
1	P2	2	b2
1	P1	2	a2

Case 2:

emxEngineeringCentral.EBOMUniquenessOperator = AND

Then from the import file

Row 1, 2, 4 will be added, Row 3 will be skipped.

It will check for both the Find Number and Reference Designator for uniqueness.

So after import P0 assembly will look like

Level	Part#	F/N	Reference Designator
1	P1	1	a1
1	P2	2	b2
1	P1	3	a1
1	P1	1	a2
1	P1	2	a2

Exporting Mass Part Cost

This file is a configurable file. Any attribute added to the **Cost** type can be included here.

The simplest way for you to get the base template for the system is :

1. Go to **Part > Engineering Bill of Materials > EBOM Summary** page.
2. Click on link **List Parts with Key Cost Criteria** from **Actions** Menu.
3. Search for **Cost** with/without any criteria specified.
4. Click **Export** Action link on the result
5. The exported file is the template that can be used for importing the cost data in the system.

Note: - These attributes are specific to Total Cost type.

The base template contains the following fields

- **Part Type:** This field indicates the **Type** of object.
- **Part Name:** This field specifies the name of the **Part** for which the **Cost** has to be imported.
- **Part Revision:** This field specifies the revision of the **Part** for which the **Cost** has to be imported.
- **Cost Name:** This field specifies the name of the **Cost**, which is to be imported. If name is specified, it should be unique. If no name is specified, then cost with auto name will be created.

- **State:** This is the **State** in which the cost attribute should be created. If the entry is **Active**, the cost object will automatically be promoted to the **Active** state.
- **Location Name:** This is the **Location Name** with which the cost being created should be associated. Only one **Cost** can be connected to one Location.
- **Location Type:** This field specifies the Location type, i.e. Default or Alternate. There can be only one default **Cost** object for a Part. To ensure this, it is advisable that multiple entries of a part should be avoided in the import file.
- **Location Currency:** This field specifies the default Currency for the Location.
- **Production Make Buy Code:** This field indicates if the **Cost** is of type Make or Buy. All the ranges of the attribute will be visible here. For correct results in costing, You should choose from the range Make and Buy only.
- **Cost Value Type:** This field indicates if the **Cost** is Actual or Estimate or Quoted.
- **Item Target Cost:** This indicates the desired cost for an Item
- **Target Cost Currency:** This specifies the associated Currency for the Item Target Cost.
- **Include Children In Rollup:** This field indicates if the subparts should be considered in the rollup calculations or not.
- **Item Quoted Material Cost:** This field specifies the ItemQuoted Material Cost for the cost object being created.
- **Item Quoted Material Currency:** This field specifies the Currency associated with the Item Quoted Material Cost
- **Item Freight Cost:** This field specifies the Item Freight Cost for the cost object being created
- **Item Labor Hours:** This field specifies the Item Labor Hours for the cost object
- **Item Labor Cost:** This field specifies the Item Labor Cost for the cost object
- **Item Variable Cost:** This field specifies the Item Variable Cost for the cost object
- **Item Fixed Cost:** This field specifies the Item Fixed Cost for the cost object
- **Item Adjusted Cost:** This field specifies the Item Adjusted Cost for the cost object
- **Supplier Name:** This field specifies the Supplier Name incase the Production Make Buy Code is Buy
- **Supplier DUNS Number:** This field specifies the Supplier DUNS Number. This field is stored in the database only if the Production Make Buy Code is Buy.
- **Contract ID:** This field specifies the Contract ID for the cost object. This field is stored in the database only if the Production Make Buy Code is Buy.
- **Effective From:** This field specifies the from affectivity date for the cost object. This field is stored in the database only if the Production Make Buy Code is Buy.
- **Effective To:** This field specifies the affectivity to date for the cost object. This field is stored in the database only if the Production Make Buy Code is Buy.

CR Costing

CR Costing enables Cost Analyst's to analyze the cost impact due to a CR.

This section includes:

- [Getting Started with CR Costing](#)
- [About CR Costing](#)
- [Assigning a Responsible Cost Analyst](#)
- [Changing the Responsible Cost Analyst](#)
- [Related Cost PowerView](#)
- [Set Costing Option](#)
- [Listing Affected Parts](#)

Getting Started with CR Costing

How you use CR Costing depends on your role. The following table shows the tasks you can perform.

If you are a:	Start by performing these tasks and referring to these sections:
Cost Analyst Administrator	<ul style="list-style-type: none">• <u>Managing Cost Templates</u>
Cost Analyst: If you are the Responsible Cost Analyst of the CR then only you are able to perform all these tasks else only view access is provided.	<ul style="list-style-type: none">• <u>Set Costing Option</u>• <u>Listing Affected Parts</u>• <u>Creating an Intermediate Cost</u>• <u>Editing Intermediate Cost</u>• <u>Edit Details</u>• <u>Creating CR Summary Cost</u>• <u>Mass Create Intermediate Cost for Selected</u>• <u>Importing Intermediate Costs</u>• <u>Generating a CR Cost Impact Report</u>• <u>Setting an Annualized Volume</u>• <u>Setting an Approval Report</u>• <u>Excluding Removed Parts</u>• <u>Exporting a CR Cost Impact Report</u>• <u>Deleting a CR Cost Impact Report</u>• <u>Processing Intermediate Costs</u>
Design Engineer /Senior Design Engineer	<ul style="list-style-type: none">• <u>Assigning a Responsible Cost Analyst</u>• <u>Changing the Responsible Cost Analyst</u>• <u>Viewing a CR Cost Impact Report</u>• <u>CR Cost Impact Report</u>• <u>Related Cost PowerView</u>
Change Coordinator / Change Administrator	<ul style="list-style-type: none">• <u>Exporting a CR Cost Impact Report</u>• <u>Related Cost PowerView</u>• <u>Viewing a CR Cost Impact Report</u>

About CR Costing

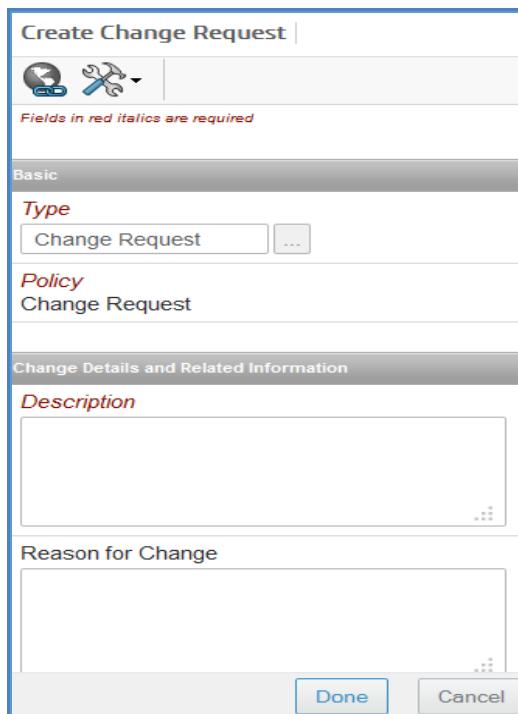
When an engineer creates a CR, they can assign a Cost Analyst to the CR, who is responsible for creating Intermediate or Summary Costs for the locations, updating total costs, and generating reports which forecast the CR's possible impact on Cost. The Cost Analyst can be assigned at any point in the CR's lifecycle until the Evaluate state.

Assigning a Responsible Cost Analyst

The **Change Request Originator** will select the user with **Cost Analyst** role while creating Change Requests. The **Cost Analyst** who is selected by **Change Request Originator** is responsible for the cost information of that Change Request. This **Responsible Cost Analyst** is not mandatory while creating the Change Request. The user can assign the **Responsible Cost Analyst** till the **Evaluate** state of the Change Request.

To assign a Cost Analyst to a Change Request:

1. While creating a **Change Request** enter **Responsible Cost Analyst** value.



Click  beside the **Responsible Cost Analyst**, opens a search dialog to search for Cost Analysts with list of existing Cost Analysts. (Refer to [Selecting from Lists](#)) Select a **Responsible Cost Analyst** from the list. The selected user will be submitted in the field **Responsible Cost Analyst** of the Create CR Page.

2. Click **Done**.

Changing the Responsible Cost Analyst

CR Originator will edit the **Responsible Cost Analyst** for the CR by clicking on **Edit Details** link from the power view page of CR.

To Change Responsible Cost Analyst for the CR:

1. Go to the power view page of the CR.
2. Click on **Edit Details** from the **Actions** menu

The screenshot shows the Power View page for CR-0000100. The left sidebar lists various tabs: Content, Collaboration, Impact Analysis, Referential, Change Orders, Meetings, Related Cost PowerView, Change Request Cost Impa... The 'Related Cost PowerView' tab is selected. The main area displays the 'Properties' tab of the 'Edit Details' dialog. The 'Basic' section contains the following data:

Name	Value	Name	Value
Name	CR-0000100	State	Create
Type	Change Request	Policy	Change Request
Responsible Cost Analyst	Bob123	Change Initiator	Test Everything
Owner	Test Everything	Change Coordinator	Test Everything

3. Click **Edit Details** link, opens a dialog to edit the **Responsible Cost Analyst** of the CR.

The screenshot shows the 'Edit Details' dialog for CR-0000100. The 'Basic' section contains the following data:

Name	Value	Name	Value
Name	CR-0000100	State	Create
Type	Change Request	Policy	Change Request
Responsible Cost Analyst	Bob123	Change Initiator	Test Everything
Owner	Test Everything	Change Coordinator	Test Everything

The 'Responsible Cost Analyst' field has a red asterisk (*) next to it, indicating it is a required field. A 'Clear' button is visible next to the field. At the bottom right of the dialog are 'Done' and 'Cancel' buttons.

4. Click on button of **Responsible Cost Analyst** field.
5. Click **Done**

NOTE: The Responsible Cost Analyst cannot be changed if the CR is in the 'In Process CO' or further States.

Related Cost PowerView

Clicking on the **RelatedCost PowerView** link in the CR Categories menu can access the **Related Cost PowerView**. The **Related Cost PowerView** aggregates information about the related costs of a CR onto one page in a tabbed format, providing access to related objects and documents. Each tabbed section contains its own toolbar. Actions menu is provided on most of the tabs that contains commands to perform actions on the items in that tabbed section.

To view Related Cost Power View for a CR:

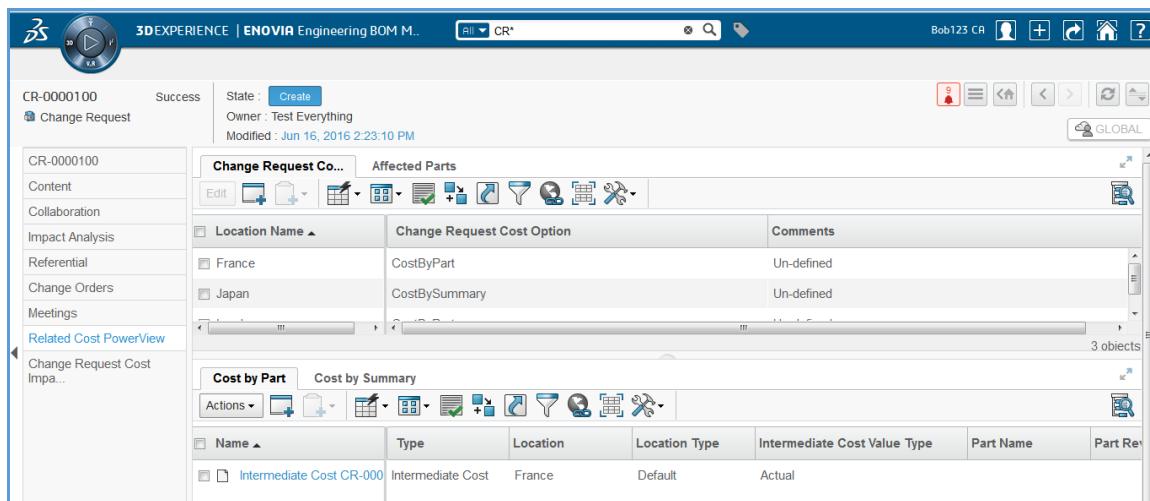
1. Click the **Related Cost Power view** link in the CR Categories menu.
2. The **Related Cost Power View** opens

Use the PowerView tabs to view more information about the Related Cost PowerView:

Category/Tab	Description	For details, see:
CR Costing Option	Shows the Costing Options for the CR	Set Costing Option
Affected Parts	Shows list of Parts affected by the CR	Listing Affected Parts
Cost By Part	Shows details of Cost By Part	Related Cost Management
Cost By Summary	Shows details of CR Summary Cost	Related Cost Management

Set Costing Option

This feature enables the functionality of the setting **Costing Option** for all the manufacturing Locations of the Organization.



To set Costing Option

1. Go to **Related Cost Power view**
2. Click on **CR Costing Option** tab.

3. If you visit the **CR Costing Option** page for the first time, **Costing Option** for all the location will be **Un-Costed**.
4. Select the location and click on **Edit** link in the Actions
5. Change the **Costing Option** for the selected location and click **Done** or Click **Cancel** to close the window.

Location Name	Cost Option	Comments
London	CostByPart	Un-defined
New York	CostBySummary	Un-defined
Tokyo	CostBySummary	Un-defined
ジャパンブル	Un-Costed	Un-defined

The following processing and validations are done while changing the **Costing Option** for location.

- If the old value of the **Costing Option** is **Cost by Summary** and user has changed it to **Cost by Part/Un-Costed**, the existing **Summary Costs** for that **CR**, are to be deleted or not, will be decided depending on the property setting **emxCostAnalytics.IntermediateCost.CostBySummary.DeleteOption** of **emxCostAnalytics.properties** file.
- If the old value of the **Costing Option** is **Cost by Part** and user has changed it to **Cost by Summary/Un-Costed**, the existing **Intermediate Costs** for that **CR**, are to be deleted or not will be decided depending on the property setting **emxCostAnalytics.IntermediateCost.CostByPart.DeleteOption** of **emxCostAnalytics.properties** file.
- If user has changed the Costing Option to Un-Costed, then comments will be mandatory.

Listing Affected Parts

This functionality will be used to create a list of parts affected by a CR. The Engineering BOM Management EBOM Markups/BOM Markups are enabled to CR and these are used in CR Costing. Only view access is available in ‘**In Process CO**’ state of CR.

To create/refresh AffectedParts List:

1. Click on the ‘**Affected Parts**’ tab. If you are visiting this page for the first time and affected part list is not created for that CR, following message will be displayed –”Creating part list may take some time. Click OK to continue”.
2. The Affected Parts list will be created and will be listed on this page

The screenshot shows the SAP ERP interface for a Change Request (CR) titled 'CR-0000100'. The status is 'Success'. The 'Affected Parts' tab is selected. A message at the top right says 'Creating part list may take some time. Click OK to continue'. Below the message, there is a table with two rows of data:

Part Name	Part Revision	Description	State	Part Status
C-0000100-01	1		Released	Revised
C-0000101-01	1		Released	Quantity Change

At the bottom of the screen, there are two buttons: 'Cost by Part' and 'Cost by Summary'.

If the Affected Parts list is present and it is not up to date and you click on the ‘**Refresh Parts List**’, pops up a message, as “The Affected Parts List is not up to date, Click OK to continue”.

3. If the Affected Parts list is present and it is up to date and you click on the ‘**Refresh Parts List**’, a message will pop-up “Affected Parts List is up to date, Click Ok to continue”.

Related Cost Management

This section deals with CR Related Cost Management. It includes Intermediate/Summary Cost creation, editing, deleting, exporting affected parts to cost, mass editing, mass import of Intermediate Costs and other functionality such as process Intermediate Costs. The Related Cost type enables us to calculate the costing associated with the Part of a CR. This information may be available in the form of catalog prices or supplier quotations. Eventually this related cost information needs to be analyzed and viewed at the part level as well as rolled-up at the BOM level for profitable decision making such as – Make vs. Buy (internal vs. supply chain costs), related cost breakdown analysis by location and supplier benchmarking.

This section includes the following:

- [Viewing Intermediate Cost](#)
- [Viewing Summary Cost](#)
- [Creating an Intermediate Cost](#)
- [Selecting Affected Part to Cost](#)
- [Mass Create Intermediate Cost for Selected](#)
- [Listing Intermediate Costs on Part-Cost Summary Page](#)
- [Editing Intermediate Cost](#)
- [Editing Summary Cost](#)
- [Changing Location Type](#)
- [Changing Include Children in Rollup](#)
- [Exporting Affected Parts to Cost](#)
- [Importing Intermediate Costs](#)
- [Deleting Selected Summary Cost](#)
- [Processing Intermediate Costs](#)

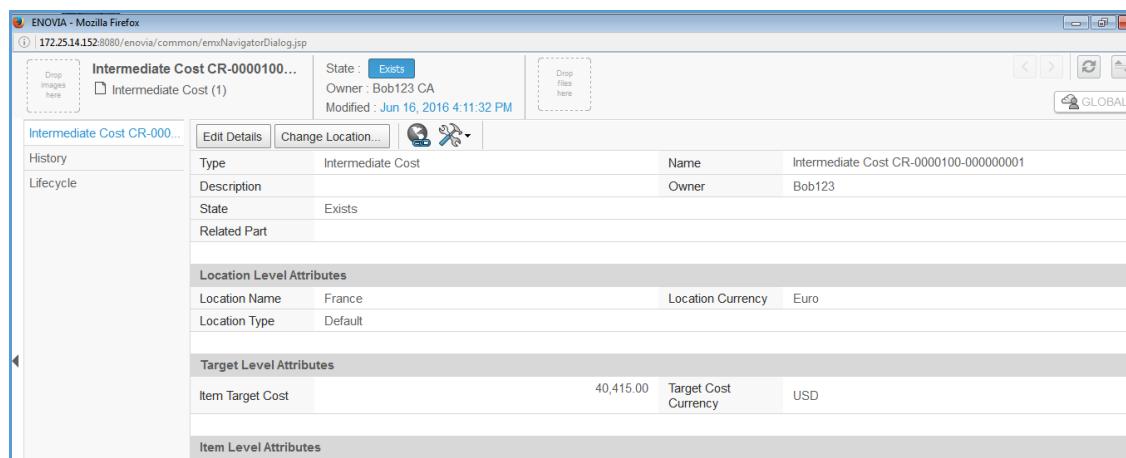
Viewing Intermediate Cost

The **Intermediate Cost** object pertains to the Cost aspects of a **CR**, which has Revised/Approved EBOM Markup Part/s.

Any time you click on a highlighted Intermediate Cost name from anywhere in the Application, the Intermediate Cost Properties page appears.

The Intermediate Cost **Categories** menu includes:

- **History** is the **AEF History**.
- **Lifecycle** is the **AFF Lifecycle**.



Viewing Summary Cost

The **Summary Cost** is a type that pertains to the **Cost** aspects for a **CR**. The Change Cost can be specified directly at the CR level to see the impact on the Engineering Change by providing comparison reports and analysis earlier in the product lifecycle.

Any time you click on a highlighted Summary Cost name from anywhere in the Application, the Summary Cost Properties page appears.

The **Summary Cost** Categories menu includes:

- **History** is the **AEF History**.
- **Lifecycle** is the **AFF Lifecycle**.

The screenshot shows the 'Change Request Summary' screen for an ECR Summary Cost object. The top navigation bar includes 'Edit Details', 'Change Location...', and a 'GLOBAL' button. The main content area displays the following details:

Type	ECR Summary Cost
Name	Change Request Summary Cost CR-0000100-000000001
Description	
Owner	Bob123
State	Exists
Location Level Attributes	
Location Name	Japan
Location Type	Default
Summary Level Attributes	
Change Cost	120.0
Change Cost Currency	USD

Creating an Intermediate Cost

The **Responsible Cost Analyst** of a CR can create a new **Intermediate Cost** object. This helps the Responsible Cost Analyst to create costing information for the CR based on the various parameters such as associated location, Production Make Buy Code etc. **Design Engineers** and **Senior Design Engineers** can also view this costing information.

To create new Intermediate Cost object:

- Click **Create New Cost** link from the **Actions** Menu of the **Cost by Part** summary page.

The screenshot shows the 'Create New Cost' dialog box for an Intermediate Cost. The fields displayed are:

- Type: Intermediate Cost
- Name: (Text input field)
- Description: (Text input field)
- Part Number: (Text input field)
- Owner: Bob

At the bottom right are 'Next' and 'Cancel' buttons.

- The following information will be displayed or has to be entered for creating new Intermediate Cost.
 - Type - Type** of the cost object being created. This will always be Intermediate Cost.
 - Name.** **Intermediate Cost** names can be generated automatically by the system, or you can type a new **Intermediate Cost** name.
- Type a unique **Intermediate Cost** name into the **Name** text box.

Or

Select the option for **Auto Name** generation.

- **Description.** Type concise details that describe the new Intermediate Cost. Type any alphanumeric characters (numbers, letters, or allowed symbols) in this text box.
- **Part Number.** The Intermediate Cost can be created for a part or it can be an amendment cost. You can search for a part by clicking  button near **Part Number** field. Refer to [Selecting from Lists](#) Select a part from the List and click **Submit**. Part number will be displayed in the **Part Number** field of step 1 page and if that part has existing Total Costs, it will be displayed in **Related Total Costs** table.
- **Owner.** The owner of this Intermediate Cost being created is the user who has logged into the VCP.

Change Request CR-0000100 -: Cost Change Request by Sum...

Fields in red italics are required

Type	ECR Summary Cost		
Owner	Bob		
Description	<input type="text"/>		
Change Cost Currency	USD <input type="button" value="▼"/>		
Location Name	<input type="button" value="▼"/>	Make Default	<input style="border: none; background-color: #f0f0f0; padding: 2px 5px;" type="button" value="No"/>
Default Location	Tokyo		
Change Cost	<input type="text"/>		
<input type="button" value="Done"/> <input type="button" value="Cancel"/>			

3. You can select any one **Total Cost** from the **Related Total Costs** and click **Next**. This will copy the attributes of the selected **Total Cost** to the **Intermediate Cost** to be created. In case you don't want to copy the attributes you can simply click **Next** and proceed.
4. Enter the attribute required to create the **Intermediate Cost**. The fields in red italics are the mandatory attributes required for **Intermediate Cost** creation. The list of mandatory attributes may vary for the each range of the mandatory attribute identifier in Cost Template. Depending on the selected range of the mandatory attribute identifier corresponding list of mandatory attributes will be displayed.
5. The **Intermediate Cost** Attributes page shows the **Location level** attributes, **Target level** attributes, **Item Level** attributes and **Quote Level** attributes.

Change Request CR-0000100 -: Intermediate Cost Attr...



Fields in red italics are required.

Location Level Attributes	
<i>Location Name</i>	<input type="text"/>
<i>Location Type</i>	Default <input type="button" value="▼"/>
<i>Location Currency</i>	USD <input type="button" value="▼"/>
<i>Labor Rate</i>	<input type="text"/>
Target Level Attributes	
<i>Item Target Cost</i>	<input type="text"/>
<i>Target Cost Currency</i>	USD <input type="button" value="▼"/>
Item Level Attributes	
<i>Intermediate Cost Value Type</i>	<input type="button" value="▼"/>
<i>Production Make Buy Code</i>	<input checked="" type="radio"/> Make <input type="radio"/> Buy
<input type="button" value="Previous"/> <input type="button" value="Done"/> <input type="button" value="Cancel"/>	

- **Location Level Attributes**

- **Location Name.** Name of the Location for which the **Intermediate Cost** object is being Created
- **Location Type** Select the Location type from the drop-down list: Select Default if the **Intermediate Cost** created is a default one or Alternate if the **Intermediate Cost** is an Alternate one.
- **Location Currency.** It is retrieved from the selected location. Its default value is USD
- **Labor Rate:** It is retrieved for the selected Location and it's a read only field. If labor is not there for a location then it's taken as zero.

- **Target Level Attributes**

- **Item Target Cost.** Enter the desired cost for an Item
- **Target Cost Currency.** Enter the associated Currency for the Item Target Cost.

- **Item Level Attributes**

- **Production Make Buy Code.** This field decides if the Part is going to be manufactured or purchased. Select Make or Buy accordingly.
- **Item Quoted Material Cost.** Enter the item quoted material cost for the associated location
- **Item Quoted Material Currency.** Select the item quoted material currency for the associated location
- **Item Freight Cost.** Enter the item freight cost for the associated location
- **Item Labor Hours.** Enter the Number of labor hours for the associated location

- **Item Labor Cost.** It's a read only field. Once labor hours are entered and the pointer is clicked anywhere else on the page, itemlabor cost is calculated from item labor hours and labor rate (Formula defined in Cost Template).
- **Item Variable Cost.** Enter the item variable cost for the associated location
- **Item Fixed Cost.** Enter the item fixed cost for the associated location
- **Item Adjusted Cost.** Enter the item adjusted cost for the associated location
- **Adjusted Cost Description.** Enter the Adjusted Cost Description for the **Cost**
- **Include Children in Rollup.** Specify if the Parts at sublevels are to be included in the Rollup or not.
- **Intermediate Cost Value Type.** Select the Cost Value Type of the Intermediate Cost.
- **Quote Level Attributes** – These are the attributes that need to be filled in if the **Production Make Buy Code** is **Buy**.

- **Supplier Name** Click on the button  to search for the **Supplier Name**.
- **Supplier DUNS Number.** Click on the button  to search for the **Supplier DUNS Number**.
- **Contract ID.** This specifies the Contract ID for a purchased item
- **Effective From.** The date/time from when the Item Quoted Material Cost becomes effective.
- **Effective To.** The date/time till when the Item Quoted Material Cost is effective.

6. Click **Done** to create the **Intermediate Cost** object.

The mandatory attributes are specified in the Cost Template.

The following validations are done while creating Intermediate Cost.

1. If you have not selected a part while creating **Intermediate Cost** then following validations will be done while creating **Intermediate Cost**.
 - The **Location** specified for the **Intermediate Cost** being created does not exist with another **Intermediate Cost**
 - Amongst all the **Intermediate Cost** created for a CR, only one **Intermediate Cost** can have Location Type as Default.
 - The specified **Intermediate Cost** name is unique.
 - The **CR** has at least one cost with **Default location** before creating a Cost with an **Alternate Location**.
2. If you have selected a part while creating **Intermediate Cost** then following validations will be done while creating **Intermediate Cost**.
 - The **Location** specified for the **Intermediate Cost** being created for the selected part does not exist with another **Intermediate Cost** for the same part.

- Amongst all the **Intermediate Cost** created with a part for a CR, only one **Intermediate Cost** can have Location Type as Default for that part.
- The specified **Intermediate Cost** name is unique.
- The CR has at least one cost with **Default location** for a part before creating a Cost with an **Alternate Location**

Selecting Affected Part to Cost

This feature enables the Responsible Cost Analyst to do the costing for the CR revised and its Added/Changed/Unchanged parts from ‘Approved EBOM-Markups’ of the CR. This functionality is available till evaluate state of the CR.

You would be able to select **Affected Parts to Cost** link from **Actions** Menu of the **Cost by Part Tab**.

1. Click on **Select Affected Parts to Cost** link in the **Action** menu of **Cost by Part tab**.
 - In case the Affected Parts list is not created it pops up a message, as “The Master list of Affected Parts needs to be created”.
 - If the Affected Parts list is exists but not up to date, pops up a message, as “The Affected Parts list is not up to Date. Please click on Refresh Parts list from Affected Parts tab to update it”.
 - If the Affected Parts list exists and is up to date, it will open a dialog, which shows CR Revised parts and its EBOM Markup Added/Changed/Unchanged Parts information. EBOM Markup Parts having **CR Part Status** as **Deleted** and Part **Exclude** status as **Yes** will not be listed.

Change Request CR-0000100 :- Select Affected Parts To Cost

[Select Specific...](#)
[Mass Create Int...](#)

Fields in red italics are required.

Click done to confirm Intermediate Cost location selection.

Existing Intermediate Cost Locations		Newly selected Intermediate Cost Locations							
	Part Name /	Part Revision	Description	State	Part Status	Total Cost Location	Intermediate Cost Location	Select Specific Location	EBOM Markup
<input type="checkbox"/>	C-0000100-01	1		Released	Revised	France	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	C-0000101-01	1		Released	Quantity Change	Japan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	C-0000102-01	1		Released	Quantity Change	London	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

- Select Part/Parts and click **Select Specific Location for Selected** link from Action Menu.

Select Specific Location for Selected

<input type="checkbox"/>	Organization Location	Change Request Costing Option	Make Default	Copy Total Cost Data From Default
<input type="checkbox"/>	France	Cost by Part	<input type="radio"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Japan	Cost by Summary	<input type="radio"/>	<input type="checkbox"/>
<input type="checkbox"/>	London	Cost by Part	<input type="radio"/>	<input type="checkbox"/>

- On click of **Done**, the selected **Organisation Locations** will be listed under **Intermediate Cost Locations** column and Default location will be shown in Bold and Underlined.
- Locations having **Intermediate Costs** will be displayed in Black font. Newly selected **Intermediate Cost Locations** will be displayed in dark red font.
- The selected **Make Default** Location will be set as Default Location for the selected Part.
- If you have selected **Copy Total Cost From Default**, new Intermediate Cost will be created with Default Total Cost data and **Intermediate Cost Value Type** will be set to **Copied**. If you don't select **Copy Total Cost From Default**, if the selected Location has Total Cost then Intermediate Cost will be created with Total Cost data and **Intermediate Cost Value Type** will be set to **Copied** else Intermediate Cost will be created with default values and **Intermediate Cost Value Type** will be set to **Unassigned**.

Change Request CR-0000100 :- Select Affected Parts To Cost

<input type="checkbox"/>	Part Name	Part Revision	Description	State	Part Status	Total Cost Location	Intermediate Cost Location	Select Specific Location	EBOM Markup
<input type="checkbox"/>	C-0000100-01	1		Released	Revised	France		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	C-0000101-01	1		Released	Quantity Change	Japan		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	C-0000102-01	1		Released	Quantity Change	London		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Click done to confirm Intermediate Cost location selection.

7. On click of  (Select Specific Locations link), displays a dialog, which shows Locations having Intermediate Costs for that part at upper portion of the dialog and Locations not having Intermediate Costs for that part at the lower portion of a dialog.

Organization Location	Change Request Costing Option	Make Default	Copy Total Cost Data From Default
France	Cost by Part	<input type="radio"/>	<input type="checkbox"/>
Japan	Cost by Summary	<input checked="" type="radio"/>	<input type="checkbox"/>
London	Cost by Part	<input type="radio"/>	<input type="checkbox"/>

8. On click of **Done**, the selected **Organisation Locations** will be listed under **Intermediate Cost Locations** column and Default location will be shown in Bold and Underlined.

Part Name	Part Revision	Description	State	Part Status	Total Cost Location	Intermediate Cost Location	Select Specific Location	EBOM Markups	PartCost
C-0000100-01	1		Released	Revised	France	Japan London	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C-0000101-01	1		Released	Quantity Change	Japan	Japan London	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C-0000102-01	1		Released	Quantity Change	London	Japan London	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Click **Done** on **Select Affected Parts to Cost** page, the **Intermediate Costs** will be created for all the selected locations.
10. If the count of newly selected Intermediate Cost Locations exceeds the foreground limit value, process will run in background and the mail will be sent to the requestor.
11. If you click on  (EBOM Markups link), opens a dialog, shows the list of associated EBOM Markups.
12. If you click on  (Part Cost link), Part Cost Summary page will pop up.
13. In case for some parts if the Intermediate Cost already exists for some location, then Intermediate Cost will not be created for that particular location

Mass Create Intermediate Cost for Selected

This functionality enables the Responsible Cost Analyst to create Intermediate Cost by using existing **Total Costs** for selected revised and new parts from **Approved EBOM-Markups** of the CR. It copies all the data from existing **Total Cost** to newly created **Intermediate Cost**.

1. You can select parts and click **Mass Create Intermediate Cost for Selected** link from **Action Menu** on **Select Affected Parts to Cost** page.

Change Request CR-0000100 -: Select Affected Parts To Cost

Select Specific... Mass Create Int...

Fields in red italics are required.

Existing Intermediate Cost Locations

Click done to confirm Intermediate Cost location selection.
Newly selected Intermediate Cost Locations

<input checked="" type="checkbox"/>	Part Name /	Part Revision	Description	State	Part Status	Total Cost Location	Intermediate Cost Location	Select Specific Location	EBOM Markups	PartCost
<input checked="" type="checkbox"/>	C-0000100-01	1		Released	Revised	France		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	C-0000101-01	1		Released	Quantity Change	Japan	Japan London	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	C-0000102-01	1		Released	Quantity Change	London	Japan London	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

In case for some parts if the Intermediate Cost already exists for some location, Intermediate Cost will not be created for that particular location. A Summary Report will be displayed which will show for which part & for which location the Intermediate Cost is not created with reason.

CR-0000100: Mass Create Intermediate Cost Error Summary

Part Name	Part Revision	Reason for not creating Intermediate Cost	Intermediate Cost	Intermediate Cost Location
m1	1	Intermediate Cost for location already exists.	Intermediate Cost CR-0000100-000000001	Delhi

If the number of Total Costs exceed particular limit given in property file, the result will go in the background & you will be notified by Icon mail. In this case, the summary report will also be delivered in the Icon mail.

If the Mass Create Intermediate Cost process finished without any problem, it pops up a message as, "Mass Create Intermediate Cost finished successfully".

Listing Intermediate Costs on Part-Cost Summary Page

Any Intermediate Cost related to a CR being processed and connected to a Part is listed under the Part Cost Summary Page. You can see all current and in-process costs on a part at any given time by selecting Part – Cost link.

You cannot create/edit/delete Intermediate Cost from this Part-Cost Summary page.

Creating CR Summary Cost

The **Responsible Cost Analyst** can select **Cost by Summary** costing option from the CR – Related Costs screen. This will create new **CR Summary Cost** object. The Responsible Cost Analyst can specify the cost “delta” or “change” directly at the CR level to see the impact of this delta cost on the Engineering Change provide comparison reports and analysis earlier in the product lifecycle. This will assist you more quickly and profitable decision-making in context of the engineering change process can be achieved.

To create new Summary Cost object:

1. Click **Cost CR by Summary** link from the **Actions** Menu of the **Cost by Summary** page.

The screenshot shows a software interface for creating a 'Cost Change Request by Summary'. The title bar reads 'Change Request CR-0000100 -: Cost Change Request by Sum...'. The form contains the following fields:

- Type: ECR Summary Cost
- Owner: Bob
- Description: (Empty text area)
- Change Cost Currency: USD
- Location Name: Tokyo
- Default Location: Tokyo
- Change Cost: (Empty text field)

At the bottom right are 'Done' and 'Cancel' buttons.

2. Enter the following information.

- **Type.** Type of the cost objects being created. This will always be **CR Summary Cost**.
- **Description.** Type concise details that describe the new CR Summary Cost. Type any alphanumeric characters (numbers, letters, or allowed symbols) in this text box.
- **Owner.** The owner of this Summary Cost object being created is the user who has logged into the VCP.
- **Change Cost.** Enter the Change Cost value at the CR level.
- **Change Cost Currency.** Select the preferred Currency for the Change Cost from the currency drop-down list
- **Location Name.** Name of the Location for which the **CR Summary Cost** object is being created. The drop down list contains Location for which the Change Cost value has been entered. The user has to select one location as Default.
- **Default Location.** Name of the Default Location for the Summary Cost.

The mandatory attributes are specified in the Cost Template.

The following validations are done while creating Summary Cost.

1. The **Location** specified for the **Summary Cost** being created does not exist with another **Summary Cost**.
2. Amongst the **Summary Costs** created for a CR, only one **Summary Cost** can have Location Type as **Default**.
3. The **CR** has at least one Cost with **Default location** before creating any **Summary Cost** with **Alternate Location**.

Editing Intermediate Cost

Responsible Cost Analyst has the access to edit the **Intermediate Cost**.

Editing Details of Intermediate Cost

An **Intermediate Cost** can be edited by clicking on **Edit Details** link from its properties page.

To edit the details of Intermediate Cost:

1. Go to the properties page of the Intermediate Cost by clicking on the **Intermediate Cost** from the **Cost by Part** tab of **the related cost power view** page of CR.

Intermediate Cost CR-0000100...
 Intermediate Cost (1)
 State : **Exists**
 Owner : Bob123 CA
 Modified : Jun 16, 2016 4:11:32 PM

Drop files here

Edit Details | Change Location... |

History	Type	Intermediate Cost	Name	Intermediate Cost CR-0000100-0000000001
Lifecycle	Description		Owner	Bob123
	State	Exists		
	Related Part			
Location Level Attributes				
	Location Name	France	Location Currency	Euro
	Location Type	Default		
Target Level Attributes				
	Item Target Cost	40,415.00	Target Cost Currency	USD
Item Level Attributes				

2. On click event on **Edit Details** link, opens a dialog to edit the **Intermediate Cost** details.

Intermediate Cost CR-0000100...
 Intermediate Cost (1)
 State : **Exists**
 Owner : Bob123 CA
 Modified : Jun 16, 2016 4:11:32 PM

Drop files here

Edit Details | Change Location... |

History	Type	Intermediate Cost	Name	Intermediate Cost CR-0000100-0000000001
Lifecycle	Description		Owner	Bob123
	State	Exists		
	Related Part			
Location Level Attributes				
	Location Name	France	Location Currency	Euro
	Location Type	Default		
Target Level Attributes				
	Item Target Cost	40,415.00	Target Cost Currency	USD
Item Level Attributes				

Edit Intermediate Cost CR-0...

Fields in red *italicics* are required.

Name
Intermediate Cost CR-0000100-0000000001

Type
Intermediate Cost

Description

Revisions
1

3. Attributes **Location Name**, **Location Type**, **Labor Rate** and **Item Labor Cost** are non-editable on this page.
4. Click **Done** to save the changes made to the **Intermediate Cost** object to the database.

Editing Selected of Intermediate Cost

All the **Intermediate Costs** related to CR will be listed on the **Cost by Part** tab of the Related Cost Power View Page of CR.

To Edit Selected Intermediate Costs:

1. Go to the **Cost by Part** tab of the Related Cost Power View Page of CR.
2. Select at least one **Intermediate Cost** to enable the **Edit Selected** link.
3. Click on **Edit Selected** link to edit the selected Intermediate Cost/Costs.

4. It pops up a dialog to edit the details of selected Intermediate Cost/Costs.
5. For details of attributes on this page, Refer to **Location Level Attributes**: section.
6. Edit existing data, using dropdowns, date selectors as well as text boxes.
7. Click on **Done**.

Editing Summary Cost

Responsible Cost Analyst has the access to edit the **Summary Cost**.

Editing Details of Summary Cost

A **Summary Cost** can be edited by clicking on **Edit Details** link from its properties page.

To edit the details of Intermediate Cost:

1. Go to the properties page of the Summary Cost by clicking on the **Summary Cost** from the Cost By Summary tab of the related cost power view page of CR.
2. On click event of **Edit Details** link, opens a dialog to edit the **Summary Cost** details.

3. Attributes **Location Name** and **Location Type** are non-editable on this page.

The screenshot shows the 'Edit Intermediate Cost' dialog. It contains sections for Location Level Attributes (Location Name: Los Angeles, Location Type: Default), Target Level Attributes (Item Target Cost: 10,000.00), and Item Level Attributes (Item Material Cost: 6,000.00). A preview pane on the right shows the updated values: Location Name: Los Angeles, Location Type: Default, Item Target Cost: 10,000.00, and Item Material Cost: 6,000.00.

- Click **Done**

Editing Selected of Summary Cost

All the **Summary Costs** related to CR will be listed on the Cost by Summary tab of the Related Cost Power View Page of CR.

To Edit Selected Summary Costs:

- Go to the **Cost by Summary** tab of the Related Cost Power View Page of CR.
- Select at least one **Summary Cost** to enable the **Edit Selected** link and click on this link.
- It pops up a dialog to edit the details of selected Summary Cost/Costs.

The screenshot shows the 'Change Request' page. The 'Affected Parts' tab is selected, displaying a table of parts with their names, revisions, descriptions, states, and part statuses. The table includes rows for C-0000100-01 and C-0000101-01. The 'Cost by Summary' tab is also visible below.

For details of attributes on this page, Refer to **Location Level Attributes**: section.

- Edit the details of Change Cost and Change Currency.
- Click on **Done**

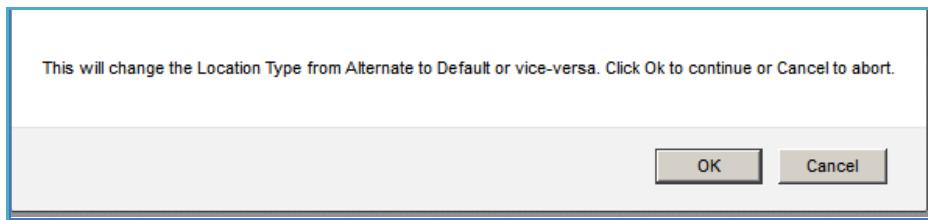
Changing Location Type

This will change the Location Type of Intermediate/Summary Cost from Default to Alternate or vice-versa. You can change the Location Type of Intermediate/Summary Cost from Related Cost Power View/Properties page.

From Related Cost Power View page

To Change Location Type from Related Cost Power View page:

1. Select Intermediate/Summary Cost to enable this link.
2. Select Intermediate/Summary Cost and click on this link to change Location Type from Default to Alternate or vice-versa. It pops up a message, as “This will change the Location Type from Alternate to Default or vice-versa.
3. Click Ok to continue or cancel to abort”.
4. If there is only one Default Intermediate/Summary Cost for the selected Part and CR combination, it will not change the location type and pops up a message, as “This is the only Cost for this part cannot modify it to Alternate”.
5. If there is only one Alternate Intermediate Cost/Summary Cost for the selected Part and CR combination, it will change existing Alternate Cost to Default Cost and vice-versa.
6. If the selected Intermediate/Summary Cost is Default and there is more than one Alternate Intermediate/Summary Cost, you should select one among the alternates to make it to Default Cost.



7. The Selected Intermediate Cost will be changed to Default Cost and the existing Default Cost will be changed to Alternate Cost.

From Properties page

To Change Location Type from Properties page:

1. Go to the properties page of Intermediate/Summary Cost properties page by clicking on the Intermediate/Summary Cost from the Cost by Part/Cost by Summary tab of Related Cost power view page of CR.
 2. Click on **Change Location Type** from the actions of properties page to change Location Type from Default to alternate or vice-versa. It pops up a message, as “This will change the Location Type from Alternate to Default or vice-versa. Click Ok to continue or cancel to abort”.
 3. The remaining process is same from step 3 as specified above for power view page.
-

Changing Include Children in Rollup

When you click on this link, a confirmation message will be shown that the value of attribute Include Children in Rollup will be changed from Yes to No or vice-versa on clicking Ok.

To Change Include Children in Rollup from Properties page:

1. Select the Intermediate Cost and click on **Change Include Children in Rollup**
 2. The value changes from Yes to No and Vice versa.
 3. Click **Cancel** to abort this operation.
-

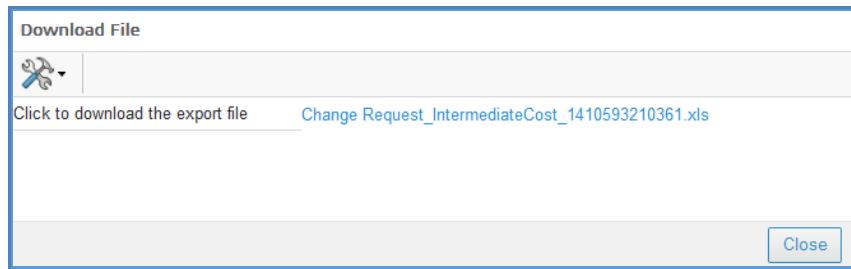
Exporting Affected Parts to Cost

By clicking on the **Export Affected Parts To Cost** link from the **Cost By Part tab** of Related Cost power view page of CR, it will export the list of Intermediate Costs, which are displayed in the Related Cost power view page as well as Parts list Affected by CR. It will export all the attribute values of Intermediate Cost. Please refer attribute list for details.

- If the Affected Parts list is not yet created, it pops up a message, as “The Affected Parts List is not created, please click on refresh Parts list from Affected Parts tab to create it”.
- If the Affected Part list is created and it is not up to date, it pops up a message, as “The Affected Parts List is not up to date. Please click on Refresh Parts List from Affected Parts tab to update it”.

To Export Affected Part costs:

1. Go to the CR Related Cost power view page.
2. Click on the **Export Affected Parts to Cost** link, it will export the Affected parts as well as its related costs in MS Excel format and gives a **link to download** the related XLS file.



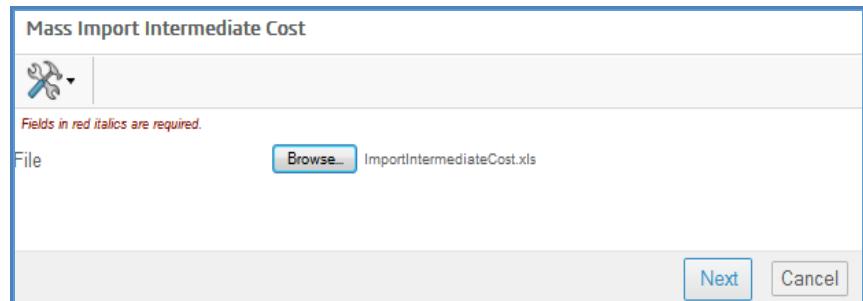
Importing Intermediate Costs

This feature allows user to import Intermediate Cost data for a list of Parts from a spreadsheet (XLS file) and it satisfies the need to manage the Intermediate Cost data for a collection of parts connected to CR directly/indirectly. The Import Cost link will appear in the Actions menu of Cost By Part tab from Related Cost Power View page of CR.

- If the Affected Parts list is not yet created and the user clicks on **Import Cost**, pops up a message, as “The Affected Parts List is not created, please click on refresh Parts list from Affected Parts tab to create it”.
- If the Affected Part list is created and is not up to date and user clicks on **Import Cost**, pops up a message, as “The Affected Parts List is not up to date. Please click on Refresh Parts List from Affected Parts tab to update it”.

To Import the Intermediate Costs:

1. Click on Mass Import Intermediate Costs link from the Cost by Parts tab.



2. Select file by using browse and click **Next** to import the Intermediate Cost data from a specified MS Excel file.
3. Click **Cancel** to cancel the request.

The data in the file is loaded on the screen.

- **Links**
- **Mass Edit**
- **Header Fields**
 - **Validation Icon:** This icon represents the action that will be taken for the associated cost object
 - **Part Name:** This is the Name of the Part for which we are importing the cost object.

- **Part Revision:** This is the Part revision for which we are importing the costs.
- **Part Type:** This is the Part type for which we are importing the costs.
- **Intermediate Cost Name:** The name of Intermediate Cost objects that should be created.
- **Location Name:** Name of the Location for which the Cost object is being Created
- **Location Type:** Specifies if the Location is of type Default or Alternate.
- **Location Currency:** This specifies the associated Currency for the selected Location
- **Production Make Buy Code:** This field decides if the Part is going to be manufactured or purchased.
- **Intermediate Cost Value Type:** Specifies the Value Type of the Part.
- **Item Target Cost:** This indicates the desired cost for an Item
- **Target Cost Currency:** This specifies the associated Currency for the Item Target Cost.
- **Include Children In Rollup:** This field indicates if the subparts should be considered in the rollup calculations or not.
- **Item Quoted Material Cost:** This field specifies the ItemQuoted Material Cost for the cost object being created.
- **Item Quoted Material Currency:** This field specifies the Currency associated with the Item Quoted Material Cost
- **Item Freight Cost:** This field specifies the Item Freight Cost for the cost object being created
- **Item Labor Hours:** This field specifies the Item Labor Hours for the cost object
- **Item Labor Cost:** This field specifies the Item Labor Cost for the cost object
- **Item Variable Cost:** This field specifies the Item Variable Cost for the cost object
- **Item Fixed Cost:** This field specifies the Item Fixed Cost for the cost object
- **Item Adjusted Cost:** This field specifies the ItemAdjusted Cost for the cost object
- **Supplier Name:** This field specifies the Supplier Name in case the Production Make Buy Code is Buy
- **Supplier DUNS Number:** This field specifies the Supplier DUNS Number
- **Contract ID:** This field specifies the Contract ID for the cost object
- **Effective From:** This field specifies the ‘from effective date’ for the cost object
- **Effective To:** This field specifies the ‘to effective date’ for the cost object

Mass Import Intermediate Cost

Edit Selected |

Select the Icons for Mass Edit:

<input type="checkbox"/> Invalid Attribute Value	<input type="checkbox"/> Location Does Not Exist	<input type="checkbox"/> Alternate Cost Exists	<input type="checkbox"/> Cannot update to Default	<input type="checkbox"/> Invalid Mandatory Identifier :- Production Make Buy Code	<input type="checkbox"/> Default Cost Exists	<input type="checkbox"/> Cannot update to Alternate	<input type="checkbox"/> Intermediate Cost Value Type Copied is not valid for this case.
Mandatory not Specified	Invalid value			Not Numeric			

	Part Name	Part Revision	Part Type	Intermediate Cost Name	Location Name	Location Type	Location Currency	Production Make Buy Code	Intermediate Cost Value Type	Item Target Cost	Target Cost Currency	Include Children In Rollup	Item Material Cost	Item Material Currency
<input type="checkbox"/>	A2	1	Part	ICO225	USA	Default	USD	Make	Actual	50.0	USD	Yes	234.0	USD
<input type="checkbox"/>	A3	1	Part	ICO7	USA	Default	USD	Make	Actual	50.0	USD	Yes	234.0	USD
<input type="checkbox"/>	P2	1	Part	ICO11	China	Default	USD	Make	Actual	50.0	USD	Yes	234.0	USD

4. Click **Done** to import/create the **Costs** into Database.

5. Click **Cancel** to cancel the request.

- If a part does not have any costs. Only one cost should be added for that Part in the excel file.
- Part Name, Part Revision, Intermediate Cost Name and Location Name are mandatory columns in the excel file along with the mandatory attributes of an Intermediate Cost.
- Intermediate Cost Name in import cost must be unique.
- In the excel file, Date fields should be in the DD/MM/YYYY format.
- An Intermediate Cost is identified by a CR, Part and Location not by its name. Intermediate Cost Name is considered only while creating an Intermediate Cost.

The following error checking is performed while importing the Part Costs. Lets see each Icon in detail:

	Part does not exist. Enter valid Part Name and re-import.
	Location does not exist. Please edit and enter the valid Location Name.
	Intermediate Cost with the same name already exists, change name and re-import.
	This Part does not exist in mentioned CR. Amended Cost will be created.
	Part is deleted in the Approved EBOM Markup/ Part is going to be obsolete.
	No Default Intermediate Cost Exist for Part. Default Intermediate Cost will be created.
	Intermediate Cost Value Type Can not is "Copied". Please edit and enter valid Intermediate Cost Value Type.

	Default Intermediate Cost for Part Exists, Alternate will be created.
	Default Cost Exists. Existing Cost will be replaced.
	Default Cost Exists, cannot update to Alternate Cost.
	Alternate Cost Exists. Existing Cost will be replaced.
	Alternate Cost Exists, cannot update to Default Cost.
	This Intermediate Cost is repeated in the file. No action will be performed.
	Intermediate Cost has invalid Mandatory Identifier Value. Please edit the cost and fill valid values.
	Intermediate Cost has invalid attribute values. Please edit and fill valid values. With this icon all invalid values of attributes are shown in a different color cell.
	Mandatory Attribute's value is missing.
	Specified attribute value is Invalid.
	For a numeric attribute, a non-numeric value is specified.
	These colors are configurable from Property file.

Note: - Before creating the costs, the header icons are used to select the costs to be edited.

Mass Edit

You can edit the **Intermediate Cost** details of All/Selected

Intermediate Cost Objects

To Mass Edit Intermediate Cost:

1. Select the Intermediate Cost/Costs.
2. Click on **Edit Selected**, it pops up a window to edit the details of selected Intermediate Costs.

Edit Intermediate Cost

Part Name	Part Revision	Part Type	Intermediate Cost Name	Location Name	Location Type	Location Currency	Production Make Buy Code	Intermediate Cost Value Type	Item Target Cost	Target Cost Currency
A2	1	Part	ICO225		Default	USD	Make	Actual	50.0	USD
A3	1	Part	ICO7		Default	USD	Make	Actual	50.0	USD
P2	1	Part	ICO11		Default	USD	Make	Actual	50.0	USD

Done Cancel

3. Edit existing data, using dropdowns, date selectors as well as text boxes.
4. Click on **Done** to reflect edited data in the previous screen to import.

Deleting Selected Intermediate Cost

Selecting Intermediate Cost/Costs from the **Cost By Part** of Related Cost power view page of CR will enable the **Delete Selected** link.

To delete selected Intermediate Cost/Costs:

1. Go to the **Related Cost Power View** page of CR.
2. Go to the **Cost by Part** summary page.
3. Select one or more costs and click on **Delete Selected** link to delete the selected costs.
4. As only the owner has rights to delete the costs, **Delete Selected** link is visible only to the owner.
5. If the selected Cost/Costs Location Type is **Alternate** then the Cost/Costs will be deleted directly.
6. If the selected Cost/Costs Location Type is **Default** then the Intermediate Cost/Costs will not be deleted directly and pops up a dialog to delete the selected Default Intermediate Cost by selecting related Alternate Intermediate Cost as **Default**.
7. Select one of the costs and click on **Delete Selected** link, it will pop up a dialog with a message, as “You are trying to delete a cost object associated with a Default Location. Choose the new Default Cost”.
8. A delete Page appears with the message. If you still want to continue then select the Cost and click on **Delete**.
9. An message will pop-up “select the Cost and click on **Delete**.
10. An message will pop-up “You are trying to delete a Cost Object associated with a Default Location. Choose the new Default Cost.”
11. The selected **Alternate** Intermediate Cost becomes Default Intermediate Cost and the previous **Default** Cost will be deleted.

Delete Cost Summary					
	Part Name	Revisions	Cost	Cost Rev	Reason
	m1	1	ICO2251	1	This is a default Cost Element and the Change Request object already has Alternate Cost Elements.
1 object					

12. If you selected a **Default Cost** and also selected two **Alternate Costs** for a particular part and it has one more unselected Alternate Cost then it will delete the two selected **Alternate Costs** directly and gives the third **Alternate Cost** to select as a **Default Cost** and then **Default Cost** will be deleted.
13. If you select all the **Intermediate Costs** for the particular Part then that all Intermediate Costs will be deleted directly.
14. If you select all the **Intermediate Costs** then that all Costs will be deleted directly.

Deleting Selected Summary Cost

Selecting Summary Cost/Costs from the **Cost by Summary** of Related Cost power view page of CR will enable the **Delete Selected** link.

To delete selected Summary Cost/Costs:

1. Go to the **Related Cost Power View** page of CR.
2. Go to the **Cost by Summary** page.
3. Select one or more Summary Costs and click on **Delete Selected** link to delete the selected costs.
4. The remaining process from step 4 to step 9 is same as discussed above for Intermediate Costs.

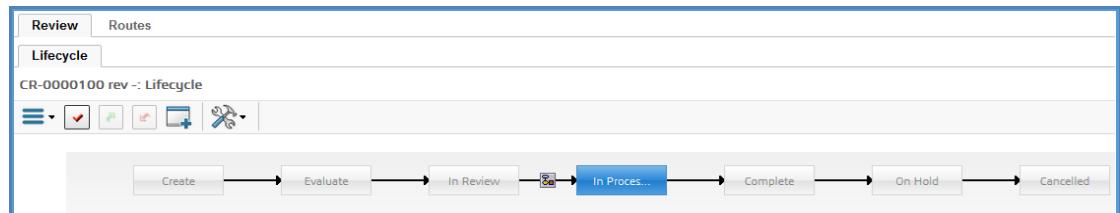
Processing Intermediate Costs

When a CR is raised on any part, Intermediate Costs can be created for the revised parts along with the EBOM mark-up parts (Parts available in the Affected Parts list).

On promotion of this CR from Review to Plan CO state, CR can be connected to CO at that moment or later. The Total Cost objects of the newly revised parts will contain the data of the Total Cost object of earlier revision and the Intermediate Cost object for that location. To process the Intermediate Cost objects of other affected parts, a separate command "Process New Part Intermediate Costs" is available in "Plan CO" state.

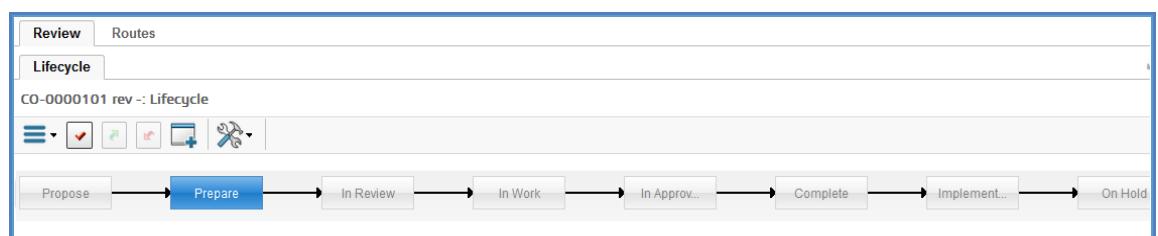
When CR (Policy CR) is promoted from Review to In Process CO state

1. Go to the CR Life Cycle page.



- Promote CR till review state.
- Now promote it to In Process CO state.
- If any of the Intermediate Costs connected to this CR have the attribute “**Intermediate Cost Value Type**” as **Copied** (or) **Unassigned**, promotion gets blocked by the trigger and a message is displayed as **Intermediate Costs Value Type should not be Copied (or) Unassigned before going to In Process CO state**.
- If the **Intermediate Cost Value Type** is not **Copied** (or) **Unassigned** for any of the Intermediate Cost, CR is promoted to **In Process CO state**. Once CR is promoted to **In Process CO state**, CO gets auto created and all the common attributes are copied from the CR.

Lifecycle of CO (Policy CO)



When you promote a CO, versioning can be either TRUE or FALSE.

Versioning is TRUE

When CO is promoted from Review to Release state then the parts with versioning are released and revised as a new Part revision. When the versioned Part becomes a Part revision, Intermediate Cost Objects are processed to Total Cost Objects.

Versioning is FALSE

Whenever the CO is promoted, the affected Items (Parts) are revised.

As the Parts are getting revised, so Intermediate Cost objects of Affected Items are processed to Total Cost objects.

When Part is promoted from Approved to Release state

It will disconnect the queued CR's and it's connected ICOs from the previous revision of the part and connects them to the newly revised and released part.

To disconnect queued CR's and it's connected ICOs:

1. Go to the **Part Life Cycle** page.
2. Promote **Part** till **Approved** state.



3. Now click on promote, it will promote the part to **Release** state and the following actions will be done.
 - The queued CRs and its connected ICOs will be disconnected from the old revision of the part and connected to the new revision of the released part.

When CR is at In Process CO state

The Intermediate Cost objects will be created for Approved EBOM markup Added/Modified/Unchanged parts and Deleted parts with Exclude as No. These Intermediate Costs will be mapped with Total Costs of these parts by clicking on “Process New part Intermediate Cost” link.

This link is only visible to the user, when the CR is in In Process CO state.

To Process Intermediate Costs of EBOM markup Parts:

1. Go to the **Cost By Part** tab from **Related Cost Power View** page of CR
2. Click on the **Process New Part Intermediate Cost** link, opens a dialog, which lists the Approved EBOM markups Added/Changed/Unchanged parts and Deleted parts with **Exclude** status as **Yes** of CR for processing.

This Dialog will display the following information

- **Part Name:** This field gives the name of the Part.
- **Revision:** This field specifies the revision of the Part.
- **Description:** The Description of the **Part** object.
- **State:** The current state of the **Part** object.
- **Intermediate Cost Locations:** The Intermediate Cost Locations, which are going to be mapped with Total Cost Locations of the **Part** object.
- **Total Cost Locations:** The Total Cost Locations, which are going to be mapped with Intermediate Cost Locations of the **Part** object.

Select Parts to Process Intermediate Cost						
Part Name	Part Revision	Description	State	Intermediate Cost Location	Total Cost Locati	
m1	1		Released	London	New York	
m2	1		Released	Tokyo	London	
m3	1		Released	New York	London	

Done **Cancel**

3. Select the parts and Click **Done**
4. A message will pop-up as “Process Intermediate Costs will run in background. After the process is completed, a mail will be sent to the requestor”.
5. The selected parts Intermediate Costs get mapped with Total Costs. This entire process will run in background.

CR Cost Impact Report

You can create a CR Cost Impact report to estimate costs-of-change during a CR/CO process. The report calculates the Cost changes for each part and displays the information in two sections: Initial Cost, and Change Cost . You can create, view, export, and delete CR Cost Impact Reports.

This section includes:

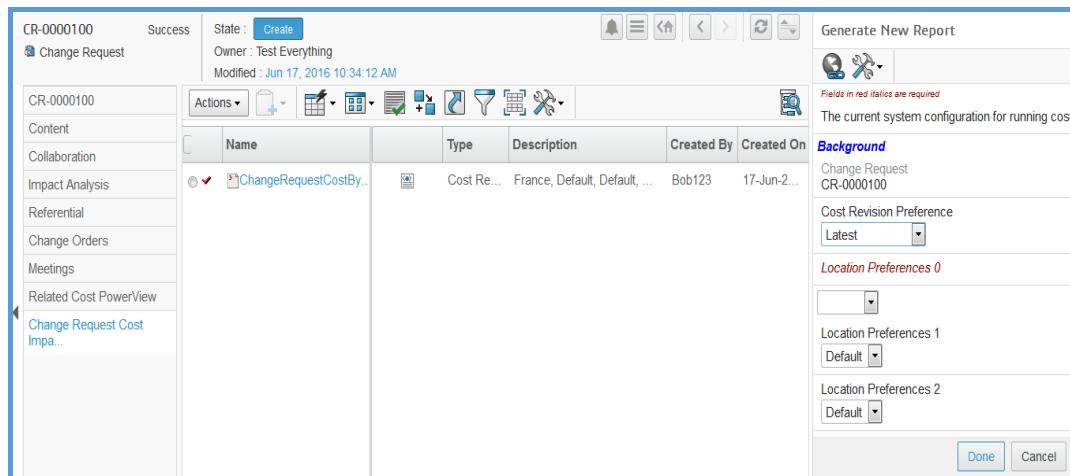
- [Generating a CR Cost Impact Report](#)
- [Viewing a CR Cost Impact Report](#)
- [Setting an Annualized Volume](#)
- [Excluding Removed Parts](#)
- [Exporting a CR Cost Impact Report](#)
- [Deleting a CR Cost Impact Report](#)

Generating a CR Cost Impact Report

The Responsible Cost Analyst can generate the CR Cost Impact Report. Based on the Costing Option the Detailed or Summary Cost Impact report will be generated.

To generate CR Cost Impact Report for a CR:

1. Click **Generate New Report** from the Actions Menu of the **CR Cost Impact Report** summary Page.
2. A Generate New Report page slide-in to enter the location preferences, Currency Affectivity Date, Description, Total Cost Currency and Comments for the report generation.



3. The default setting for **Generate New Report** is background. But it can run on foreground also depending on the setting.
4. The **Cost Revision Preference** can be selected as Latest or Latest Release, defines the cost to be considered while generating the Report.
5. On the **Generate New Report** page, the four different **Location Preferences** can be selected. Along with the different options for **Locations**, there is an option of **default**. This preference refers to the default **Intermediate Cost** object. It is mandatory for the user to enter at least one Preference.
6. You can also select the **Total Cost Currency**. This will be the currency in which the CR Cost Impact would be calculated. The default value of **Total Cost Currency** is taken from the **Property** file.
7. **Currency Effective Date or description** can be entered to specify the currency to be chosen for the given date or specified description respectively. You can click on the [Currency Exchange Rates](#), to view the different currency conversions
6. The **Cost Report Comments** entered by the user, is the **Description** of the **CR Cost Impact Report** that will be generated.
7. The **CR Costing Option** for **Location Preference 0** is displayed. This field is not editable.
8. Click **Done**.

9. On click of **Done**, based on the **Location Preference 0** the Costing Option will be decided.
 - For Costing option: **Cost by Part**
 - The **Parts** connected to the CR for which the Change Costs and CR Impact are being calculated could be a multilevel **EBOM**, and hence the report runs in background mode.
 - After completion of the background process, the user will be notified by an email or icon mail.
 - For Costing option: **Cost by Summary**
 - The CR Level Change cost and CR Impact are calculated and the results are shown to user in predefined format in the foreground.
 - The **Cost Summary** section will not be displayed in the **CR Summary Report**.
 - For Costing option: **Un-Costed**
 - CR Cost Impact report will not be generated.
 - The user will get an error message when the user tries to generate the CR impact report for the “Un-Costed” option.
 10. If the Parts related to the CR on which the **Generate New Report** was run, does not have any **Active** cost objects, or does not have any cost objects at all, Error report will be generated.
 11. If the **CR Cost Impact Report** calculation completed successfully then the generated report is listed on the **CR Cost Impact Report** summary page.
 12. Additionally if setting is for foreground then the result will be displayed in **foreground**.
 13. In case of an error encountered during the **CR Cost Impact Report** calculation, an XLS error report is generated specifying where the error occurred and details of the error. The error report is listed on the **CR Cost Impact Report** summary page.
 - If currency exchange rates are missing, it is logged as an error in an excel file.
 - If proper categories are not mentioned in the Cost Template, CR Cost Impact Report may give invalid data.
-

Viewing a CR Cost Impact Report

To view a **CR Cost Impact Report**, just click on name of the Report object on the **CR Cost Impact Report** summary page.

The **CR Cost Impact Report** summary page contains the following columns:

- **Name.** Click on any highlighted link in the Name column to view the Report page
- **Icon.** Indicates that this is the **Default/Approved** Report to be shown in the Cost Section of the CR Summary Report. There can be only one Approved Report at a time.

- **Icon.** Represents a valid CR Cost Impact Report whereas shows an Error Report.
- **Type.** The Cost Report type.
- **Description.** Details entered by the user while generating the Report.
- **Created By.** The name of user who generated the Report.
- **Created On.** The time when the report was created.

To view the CR Cost Impact Report:

- Click on name of the **Report** object.

The screenshot shows a software interface for managing change requests. At the top, there's a header bar with various icons. Below it is a large table containing detailed information about a specific change request (CR-0000100). The table includes columns for Change Request Name, Date Generated, Currency Effective Date, Part Description, Referred Cost Template, Product Line, Total Change Request Cost, Location Preferences, Specified Currency, Requestor, Reason For Change, Change Request Description, Cost Revision, and a few others. Below this table is a smaller table showing a breakdown of costs for different parts, with columns for Name, Type, Quantity, Revision, Level, Total Quoted Material Cost, Total Freight Cost, Total Labor Cost, and Total Variable. The first part listed is 'C-0000100-01'.

Change Request Name	CR-0000100	Location Preferences	France, Default, Default, Default					
Date Generated	06/17/2016 10:34:11 AM	Specified Currency	USD					
Currency Effective Date	17-Jun-2016	Requestor	Bob123					
Part Description	Report Description							
Referred Cost Template	Total CostRev 0;Intermediate CostRev 0							
Product Line	Reason For Change							
Total Change Request Cost	147.31K	Change Request Description	Success					
		Cost Revision	Latest					
Name	Type	Quantity	Revision	Level	Total Quoted Material Cost	Total Freight Cost	Total Labor Cost	Total Variable
C-0000100-01	Part	1.0	1	1	771.0	7200.0	8027.0	1034.0
C-0000101-01	Part	4.0	1.0	2	120.0	3000.0	2070.0	300.0

- Depending on the Costing Option the **CR Cost Impact Report** is displayed.
- The Report for Costing Option Cost By Part contains the following
- **Header**
 - **CR Name** – This is the CR for which the CR Cost Impact Report is generated.
 - **Location Preferences** – These are the Location preferences that were selected by the user while calculating the CR Cost Impact.
 - **Date Generated** – This is the date when this Report was generated.
 - **Specified Currency** – This is the currency in which the CR Cost Impact has been calculated.
 - **Currency Effective Date** – The currency exchange rate is considered as of this effective date.
 - **Product Line** – This is the Product Line for the CR.
 - **CR Description** – This is the description of the CR on which the CR Cost Impact is calculated.
 - **Reason for Change** – This is the reason for change.
 - **Requestor** – This is the user who requested for the CR Cost Impact calculations.
 - **Referred Cost Template** – This is the Cost Template (with revision) referred for calculations.
 - **Report Description** – This is the description of the report.

- **Cost Revision preference** – This can be Latest or Latest Released, It determines the Total Cost that needs to be picked while generating the Report. If latest, report will be generated successfully even if cost are in Create state, while if Latest Released is selected then costs need to be in Active.
- **CR Cost Impact table data.**
 - **Expand Icon**  - On expand it shows the EBOM Markup Added/Deleted/Changed parts.
 - **Part Type** – This is the Part type.
 - **Part Name** – This is the Name of the Part in the EBOM.
 - **Part Revision** – This field specifies the Part revision.
 - **Description** – This is the Part Description.
 - **Quantity** – This field indicates the number of such Parts in the EBOM.
 - **Total Material Cost** - This field indicates the Total Material Cost for the Part.
 - **Total Freight Cost** - This field indicates the Total Freight Cost for the Part.
 - **Total Labor Cost** - This field indicates the Total Labor Cost for the Part.
 - **Total Cost** - This field indicates the Total Cost for the Part.
 - **Delta Material Cost** - This field indicates the change in Material Cost of the Part.
 - **Delta Freight Cost** - This field indicates the change in Freight Cost of the Part.
 - **Delta Labor Cost** - This field indicates the change in Labor Cost of the Part.
 - **Delta Cost** - This field indicates the change in Cost of the Part.
 - **Excluded** - This field can have one of the two values yes or no. If Yes the Removed Markup Part is excluded in Rollup Calculation. If no the Removed Markup Part is not excluded in Rollup Calculation
 - **Annualized Volume** - This field indicates the Annualized volume for the Part.
 - **Annualized Year** - This field indicates the Annualized Year for the part.
 - **CR Cost Impact** - This field indicates the impact on Cost of the Part by CR. If the K suffix value is specified by the user in the emxCostAnalytics properties, the results will be displayed in thousands.

The following icons display the Part status:

-  Changed
-  Removed
-  Add

Export

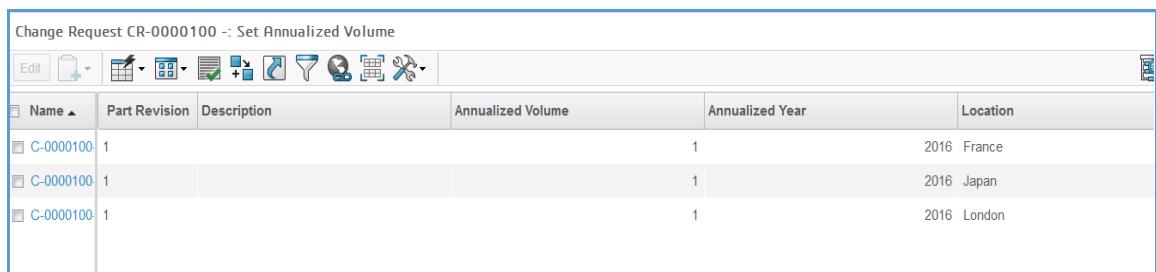
When you click on  from **Actions** Menu, a dialog giving the option to download the exported .xls file will appear. You can save the file to the local disk, or can click on the link and directly view the exported file in the browser.

Setting an Annualized Volume

The Set Annualized Volume link is used to enter the annualized volume for the Parts attached to a CR for a particular Location. The Responsible Cost Analyst has access to this Link.

To set Annualized Volume for Parts attached to a CR:

1. Go to the **CR Cost Impact Report** page of CR.
2. Click on the **Set AnnualizedVolume** link from the **Actions** menu, it pops up a dialog, which shows the Annualized Volume for combination of Part and Location.



Change Request CR-0000100 -: Set Annualized Volume					
Name	Part Revision	Description	Annualized Volume	Annualized Year	Location
C-0000100	1		1	2016	France
C-0000100	1		1	2016	Japan
C-0000100	1		1	2016	London

3. The default Annualized Volume is 1 and default Annualized Year is current year.
4. Select the Parts with Location combination and click on **Edit**; pops up a dialog to edit the default values/ previously entered values.
5. Change the Annualized volume and Annualized Year for the Parts attached to a CR.
6. Click on **Done**

Excluding Removed Parts

The **Exclude Removed Parts** enables **Responsible Cost Analysts** to exclude EBOM Markup Removed Parts from the CR Cost Impact Report. The Responsible Cost Analyst has access to this Link.

1. Click on the **Exclude Removed Parts** link in the **Actions** menu of **Cost Impact Report** Summary page, opens a dialog to select removed parts for exclusion.
2. Select the **Removed Part/Parts** from this dialog.

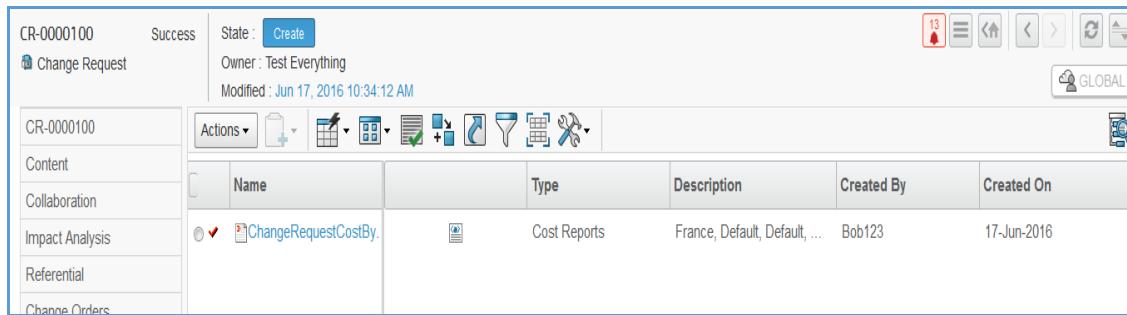
3. Click on **Done** to exclude the selected Removed Part/Parts from the **CR Cost Impact Report**.

Setting an Approval Report

The **Set Approval Report** link is used to set the selected **CR Cost Impact Report** to be shown in the Cost Summary Section of CR Summary Report. The Responsible Cost Analyst has access to this Link.

To Set a Report as Approved/Default:

1. Go to the **CR Cost Impact Report** summary page of CR.
2. Select one **Report** to enable the **Set Approval Report** link.
3. Click on this link to set the selected reports as **Approved/Default Report** to be shown in the **Cost Summary Section of the CR Summary Report**.



A screenshot of the CR Cost Impact Report summary page. The top header shows 'CR-0000100' with a 'Success' status, 'State: Create', 'Owner: Test Everything', and 'Modified: Jun 17, 2016 10:34:12 AM'. Below the header is a toolbar with various icons. A sidebar on the left lists 'Content', 'Collaboration', 'Impact Analysis', 'Referential', and 'Change Orders'. The main content area displays a table with columns: Name, Type, Description, Created By, and Created On. One row in the table is highlighted, showing 'ChangeRequestCostBy.' as the Name, 'Cost Reports' as the Type, 'France, Default, Default, ...' as the Description, 'Bob123' as the Created By, and '17-Jun-2016' as the Created On. An icon with a checkmark is present next to the Name column of this row.

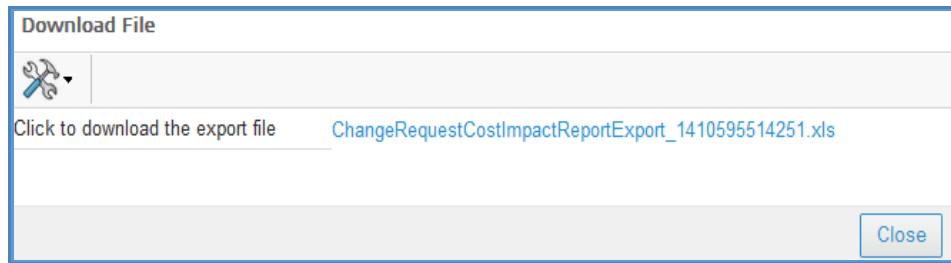
Name	Type	Description	Created By	Created On
ChangeRequestCostBy.	Cost Reports	France, Default, Default, ...	Bob123	17-Jun-2016

4. The Icon indicates that this is the **Approved/Default Report** to be shown in the **Cost Summary Section of the CR Summary Report**.
5. The Approved report is displayed in the Cost Summary section of **CR Summary Report**.

Exporting a CR Cost Impact Report

The Responsible Cost Analyst, Design Engineer Senior Design Engineer, CR Chairman, CR Coordinator and CR Evaluator can export the CR Cost Impact Report.

1. To Export CR Cost Impact Report, Click on **Export** link from the **Actions** Menu on the CR Cost Impact Report.
2. You can download the Excel file.



3. You can save the file to the local disk, or can click on the link and directly view the exported file in the browser. The exported file contains Sheet containing the header information and the exported data.

Deleting a CR Cost Impact Report

The Delete link on the CR Cost Impact Report summary page is used to delete the CR Cost Impact Reports. Selecting Report from the **CR Cost Impact Report** summary page will enable the **Delete Selected** link.

To delete selected Cost Report:

1. Go to the CR Cost Impact Report summary page of CR.
2. Select a Report and click on **Delete Selected** link
3. Only the **Responsible Cost Analyst** can delete the report. If the **Responsible Cost Analyst** is changed, the ownership of the report is also changed to the new **Responsible Cost Analyst**.
4. When you select the CR Cost Impact Report and click the **Delete Selected** link, you will get a Warning Message as “Do you want to delete the selected CR Cost Impact Report?”
5. If you select the CR Cost Impact Report, which is the approval Report, and clicks on the Delete Selected link, you will get a Warning message as “Please set a different report, using ‘Set Approval Report’ command, before deleting the Approval Report”. You should set a different report for approval and then delete the previously selected report to delete.

Currency Exchange Rates

Cost Analyst Administrators can create, view, and edit currency exchange rates. They can set the date an exchange rate becomes effective and associate a brief description with each exchange rate. Cost Analysts can view the currency exchange rates, but cannot create or edit them.

This section includes:

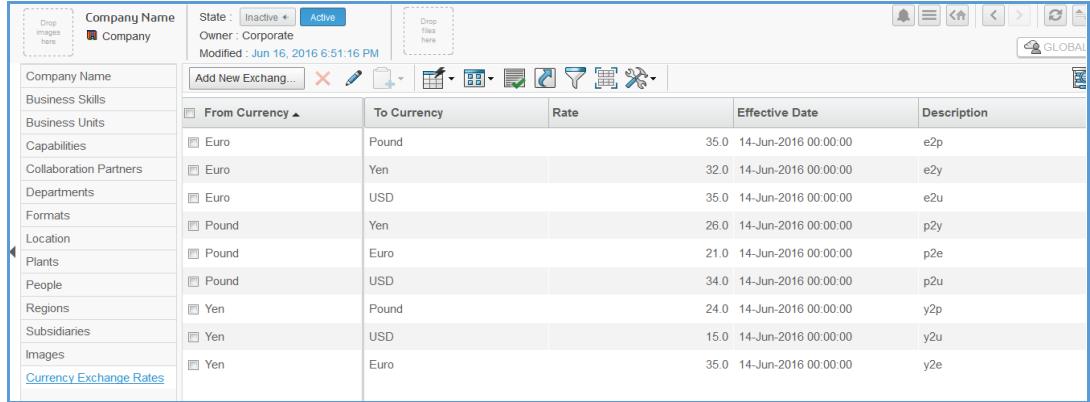
- [Viewing Currency Exchange Rates](#)
- [Adding Currency Exchange Rate](#)
- [Deleting a Currency Exchange Rate](#)
- [Editing Currency Exchange Rate](#)

Viewing Currency Exchange Rates

The Cost Analyst Administrator can view the Currency Exchange rates

To View the Currency Exchange Rates:

1. Click on  > People and Organization> **Currency Exchange Rates**



From Currency	To Currency	Rate	Effective Date	Description
Euro	Pound	35.0	14-Jun-2016 00:00:00	e2p
Euro	Yen	32.0	14-Jun-2016 00:00:00	e2y
Euro	USD	35.0	14-Jun-2016 00:00:00	e2u
Pound	Yen	26.0	14-Jun-2016 00:00:00	p2y
Pound	Euro	21.0	14-Jun-2016 00:00:00	p2e
Pound	USD	34.0	14-Jun-2016 00:00:00	p2u
Yen	Pound	24.0	14-Jun-2016 00:00:00	y2p
Yen	USD	15.0	14-Jun-2016 00:00:00	y2u
Yen	Euro	35.0	14-Jun-2016 00:00:00	y2e

The currency exchange rate summary page has the following fields:

1. Header:

- **From Currency:** The currency, which needs to be converted to.
- **To Currency:** The currency on which exchange rate is found.
- **Rate:** The exchange rate of the currencies.
- **Effective Date:** The date on which the exchange rate is effective.
- **Description:** The description related to the exchange rate.

Adding a Currency Exchange Rate

The **Add New Exchange Rates** adds a new currency exchange rate to the currency exchange rates list.

To add currency exchange rate

1. Click on the link Add New Exchange Rates in the currency exchange rates summary page.

Add New Exchange Rate

Fields in red *italics* are required

<i>From Currency</i>	USD
<i>To Currency</i>	Pound
<i>Rate</i>	12
<i>Effective Date</i>	17-Jun-2016
<i>Description</i>	Exchange

Done **Cancel**

2. The fields are as follows:

- **From Currency:** The currency, which needs to be converted to.
- **To Currency:** The currency on which exchange rate is found.
- **Rate:** The exchange rate of the currencies.
- **Effective Date:** The date on which the exchange rate is effective.
- **Description:** The description related to the exchange rate.

3. Click on ‘**Done**’ after entering values.

Deleting a Currency Exchange Rate

The **Delete Selected** deletes the currency exchange rates. In order to delete exchange rate, select the Currency Exchange Rates and click on **Delete Selected** link, an alert pops up for confirmation before deletion.

Editing a Currency Exchange Rate

The **Enable Edit** allows you to edit currency exchange rates.

1. Select the Currency Rates
2. Click on the **Enable edit** link.

From Currency	To Currency	Rate	Effective Date	Description
Euro	Pound	35.0	14-Jun-2016 00:00:00	e2p
Euro	Yen	32.0	14-Jun-2016 00:00:00	e2y
Euro	USD	35.0	14-Jun-2016 00:00:00	e2u
Pound	Yen	26.0	14-Jun-2016 00:00:00	p2y
Pound	Euro	21.0	14-Jun-2016 00:00:00	p2e
<input checked="" type="checkbox"/> Pound	USD	35.34.0	14-Jun-2016 00:00:00	p2u
Yen	Pound	24.0	14-Jun-2016 00:00:00	y2p
Yen	USD	15.0	14-Jun-2016 00:00:00	y2u
Yen	Euro	35.0	14-Jun-2016 00:00:00	y2e

3. Choose and option from the Mass Update and Apply to Currency Exchange rate you want to change.
4. Click on **Save**.
5. The Currency Exchange Rates are updated with the applied changes.

Extending Cost Elements to have Labour Rate

In create new cost and edit cost for Part and CR, Item Labor Cost is calculated from Labor Rate for the location selected and ItemLabor Hours that is entered. Two new attributes Labor Rate and Location Currency are added to the Location. Creating a New Location and Editing it are the steps followed for implementing this functionality.

In this section:

- [Creating a New Location](#)
- [Editing a Location](#)

Creating a New Location

Create new Location is accessible only to the administrator. Here due to addition of two new attributes, Location Currency and Labor Rate create new location page has been changed.

The screenshot shows a dialog box titled 'Company Name|Create Locatio...'. At the top right are icons for globe and wrench. Below them is a note: 'Fields in red italics are required'. The form fields include:

- Type**: A dropdown menu showing 'Location'.
- Name**: An input field.
- Company**: A section with a 'Company Name' input field containing the placeholder 'Company Name'.
- Location Type**: A section with three checkboxes:
 - Billing Address
 - Headquarters Site
 - Manufacturing Site
- Address 1**: An input field.
- Address 2**: An input field.
- Buttons**: 'Done' and 'Cancel' at the bottom right.

Please note following points

- Name, City, Labor Rate and Location Currency are **mandatory attributes**.
- The default location currency is USD.
- Location Type is to be selected as Manufacturing Site.
On clicking **Done** and a new location will be created.

Editing a Location

Edit Location is accessible only to the administrator. Here due to addition of two new attributes, Location Currency and Labor Rate the Edit location page has been changed.

The screenshot shows the 'Edit Location' dialog box for a location named 'France'. The top header includes fields for 'State' (set to 'Inactive'), 'Owner' (set to 'Test Everything'), and 'Modified' (set to 'Jun 17, 2016 11:04:45 AM'). On the right side of the header are standard application icons. Below the header is a 'Lifecycle' section containing a tree view with 'France' selected. To the right of the tree view is a table of location attributes:

Name	France
Company	Company Name
Location Type	Manufacturing Site Shipping Address
Address 1	
Address 2	
City	Paris
State/Region	
Zip/Postal Code	
Country	Unassigned
Primary Contact	
Labor Rate	15.0
Location Currency	Euro

At the bottom right of the dialog are 'Done' and 'Cancel' buttons.

Here City, Labor Rate and Location Currency are mandatory attributes. The attributes that are to be edited are to be changed and then click on **Done** to update the location.

Glossary

Adjusted Cost Description

Brief description of the adjusted cost of an object.

Contract ID

The Contract ID for a purchased item.

Cost

A class that defines the costs of a part.

Cost Document

A type of Reference Document of Total Cost type.

Cost Location

The location that a particular cost is associated with.

Cost Part

The cost object associated with a Part.

Cost Reports

A type of Reference Report.

Cost Value Type

The type of cost value: *Estimate*, *Actual*, and *Quoted*. Defaults to *Estimate*.

Date Updated

The date and time the totals for this cost object were last updated by a requested BOM Cost roll-up.

Effective From

The date and time the Item Quoted Material Cost becomes effective.

Effective To

The end date and time for which the Item Quoted Material cost is effective.

Include Children in Rollup

Indicates whether to include the child parts in Rollup calculations.

Item Adjusted Cost

A cost which accounts for underlying parts that are not yet known, and for other expenses, such as anticipated improvements, tasks, contingencies, and risks. Its value can be negative or positive.

Item Fixed Cost

The fixed cost for the item at this location.

Item Freight Cost

The freight cost to ship the item from this location.

Item Labor Cost	The labor cost for the item at this location.
Item Labor Hours	The number of labor hours for the item, for tracking purposes.
Item Quoted Material Cost	The quoted material cost for the item at the location, if any. Values will be in the currency defined in the ItemQuotedMaterialCost Currency.
Item Quoted Material Currency	The preferred currency for the ItemQuotedMaterialCost.
Item Target Cost	The desired cost of an item. During development, the goal is to make the estimated or total cost equal to or lower than the target cost. The default is 0(zero).
Item Variable Cost	The variable cost for the item at the location.
Location Currency	The preferred currency for all cost fields for the location.
Location Name	The location associated with a cost object.
Location Type	Specifies whether the location connected to the cost object is the Default Location or an Alternate Location.
Production Make Buy Code	The Production Make Buy Code specifies whether the part will be Manufactured or Purchased.
Supplier DUNS Number	The supplier's DUNS number.
Supplier Name	The supplier from whom the item will be purchased.
Target Cost Currency	The preferred currency for the Target Cost.
Total Adjusted Cost	This calculated attribute sums up the Total Adjusted Costs for the next lower level items in the BOM plus the ItemAdjusted Cost at the current BOM level.
Total Cost Currency	This non-editable field specifies the currency used for the Total Cost attribute. The Cost Analyst Administrator can edit this value in the Properties file.
Total Fixed Cost	This calculated attribute sums up the Total Fixed Costs for the next lower level items in the BOM plus the ItemFixed Cost at the current BOM level.

Total Freight Cost

This calculated attribute sums up the Total Freight Costs for the next lower level items in the BOM plus the ItemFreight Cost at the current BOM level.

Total Labor Cost

This calculated attribute sums up the Total Labor Costs for the next lower level items in the BOM plus the ItemLabor Cost at the current BOM level.

Total Labor Hours

This calculated attribute sums up the Total Labor Hours for the next lower level items in the BOM plus the ItemLabor Hours at the current BOM level.

Total Quoted Material Cost

This calculated attribute sums up the Total Quoted Material Costs at the next lower level items in the BOM plus the ItemQuoted Material Cost at the current BOM level.

Total Target Cost

This calculated attribute sums the Total Target Cost at the next lower level items in the BOM plus the ItemTarget Cost at the current BOM level.

Total Variable Cost

This calculated attribute sums up the Total Variable Costs for the next lower level items in the BOM plus the ItemVariable Cost at the current BOM level.

From Currency

An object's currency, which needs to be converted to the OEM's desired currency.

To Currency

An object's new currency, from which the exchange rate is taken.

Rate

The exchange rate of the currencies.

Effective Date

The date on which the exchange rate is effective.

Description

A brief description of the exchange rate.

Responsible Cost Analyst	The person assigned to manage the cost information for a CR.
CR Costing Option	The type of costing associated with a CR's manufacturing location: <i>Cost By Part</i> , <i>Cost By Summary</i> , or <i>Un-Costed</i> .
Cost By Part	Specifies how detailed cost information for a CR's manufacturing location will be maintained.
Cost By Summary	Specifies how detailed cost information for a CR's manufacturing location will be maintained.
Un-Costed	Specifies that there is no cost change for a CR's manufacturing location.
Related Cost	The cost related to a CR.
Intermediate Cost	A class which holds the Cost aspects of a CR that has Revised/Approved EBOM Markup Part/s.
Summary Cost	A class which holds cost aspects at the CR level.
Intermediate Cost Location	The location associated with an Intermediate Cost.

Summary Cost Location	The location associated with a Summary Cost.
Affected Parts	The parts affected by a CR.
Change Cost	The impact on cost by a raised CR.
Change Cost Currency	The currency of the Change Cost.
Intermediate Cost Value Type	The type of intermediate cost value: <i>Estimate</i> , <i>Actual</i> , <i>Quoted</i> , <i>Copied</i> , or <i>Unassigned</i> . The default is <i>Estimate</i> . Your Cost Analyst Administrator may define additional types.
Annualized Volume	The annualized volume for the parts attached to a CR for a particular location.
Annualized Year	The year for which the annualized volume has been calculated. See Annualized Volume.
Approval Report	The approved CR Cost Impact Report which is available from the Cost Summary Section of the CR Summary Report.