



ProcessForce User's Guide

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Hot to Guide – ProcessForce Costing - Material and Resources

Costing function of ProcessForce allows to calculate cost of production, including cost of materials and resources. The cost can be calculated including many other factors, e.g. Scrap and Coproduct cost, Revisions, Routings. User can also perform costing procedures, e.g. Roll Over and Roll Up.

On this page:

- [Configuration](#)
- [Revision and Routing Costing Defaults](#)
- [Item Costing](#)
- [Resource Costing](#)
- [CoProduct and Scrap Costing](#)
- [Cost Categories](#)
- [Projects](#)
- [Distribution and Cost Dimensions](#)
- [Faster Costing Calculation and Restoration Engine](#)

Path

Main Menu > Costing

1.1 Configuration

In this section you will find all information needed for costing function to work properly. Note that both SAP Business One and ProcessForce settings must be set.

On this page:

- [SAP Business One Settings](#)
 - [Company Details](#)
 - [Document Settings](#)
 - [Warehouses](#)
- [ProcessForce Settings](#)
 - [Costing Price Determination](#)
 - [Restore Functions](#)
 - [Cost Categories](#)
 - [Default Overhead Rates](#)
 - [Changing Default Overhead Values](#)

1.1.1 SAP Business One Settings

Company Details

Path

Administration → System Initialization → Company Details

- Use Perpetual Inventory - This field can be checked or unchecked. For example in the UK, this field is checked, while in Italy this field is unchecked
- Manage Item Cost per Warehouse - it is optional, but should be checked before costings recreation

Company Details



General

Accounting Data

Basic Initialization

Chart of Accounts Template	GB_CoA
Local Currency	British Pound
System Currency	British Pound
Default Account Currency	All Currencies
<input checked="" type="checkbox"/> Display Credit Balance with Negative Sign	
<input type="checkbox"/> Use Segmentation Accounts	
<input checked="" type="checkbox"/> Allow Negative Amounts for Reversal Transaction Posting	
<input type="checkbox"/> Permit More than One Document Type per Series	
<input type="checkbox"/> Multi-Language Support	
<input checked="" type="checkbox"/> Use Perpetual Inventory	
Item Groups Valuation Method	Moving Average
<input checked="" type="checkbox"/> Manage Item Cost per Warehouse	
<input type="checkbox"/> Use Purchase Accounts Posting System	
<input type="checkbox"/> Allow Stock Release Without Item Cost	
Manage Serial and Batch Cost By	
<input checked="" type="radio"/> Items Group Valuation Method	
<input type="radio"/> Serial/Batch Valuation Method	
Ordering Party	
House Bank	
Default Bank Country	United Kingdom
Default Bank	
Default Account No.	
Default Branch	
<input type="checkbox"/> Install Bank Statement Processing	
<input type="checkbox"/> Enable Intrastat	
<input type="checkbox"/> Enable Fixed Assets	
<input type="checkbox"/> Enable Multiple Branches	
<input checked="" type="checkbox"/> Mask Credit Card Number	
<input type="checkbox"/> Enable Advanced G/L Account Determination	
<input type="checkbox"/> Allow Selection of Any Account Type for Revenue Accounts	
<input type="checkbox"/> Enable Project Management	

OK

Cancel

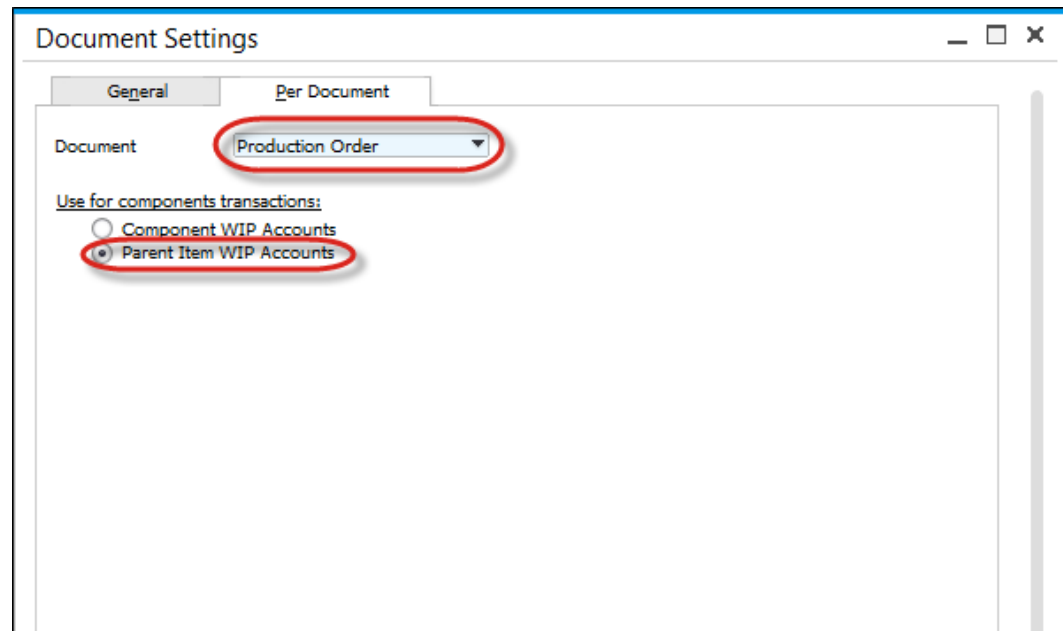
Document Settings

Path

Administration → System Initialization → Document Settings

Within a Standard Costing environment, WIP variances will occur when there are differences between planned vs actual quantities and cost, and the cost of the finished product.

Normal production configuration is to check Parent Item WIP Accounts.



Warehouses

- When a new warehouse is added, depending on the SAP Business One configuration, new warehouses are automatically added to the Item Master record.
- In turn each warehouse is added to each Item Costing record
- If a warehouse is deleted, this warehouse is deleted from each Item Costing record
- For Drop Ship warehouses, these are not added to the Item Costing record

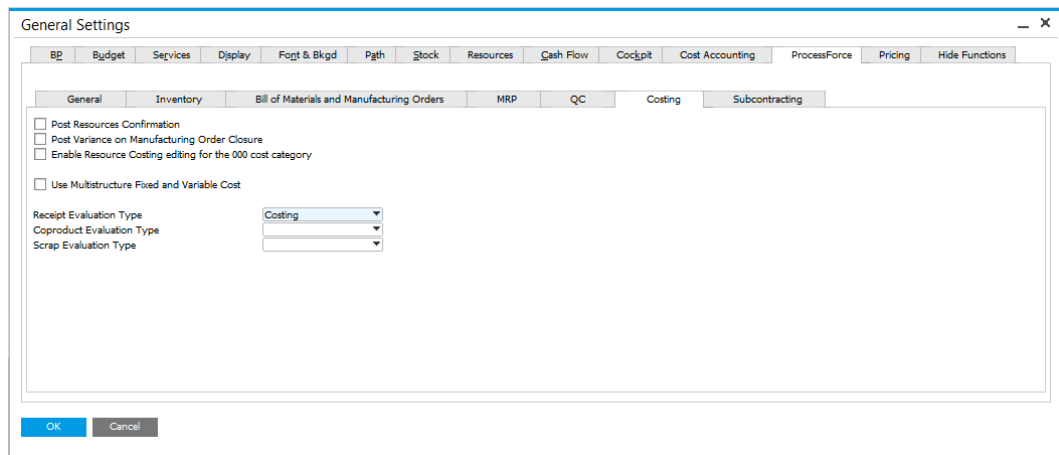
1.1.2 ProcessForce Settings

Path

Administration → System Initialization → General Settings → ProcessForce tab → Costing tab

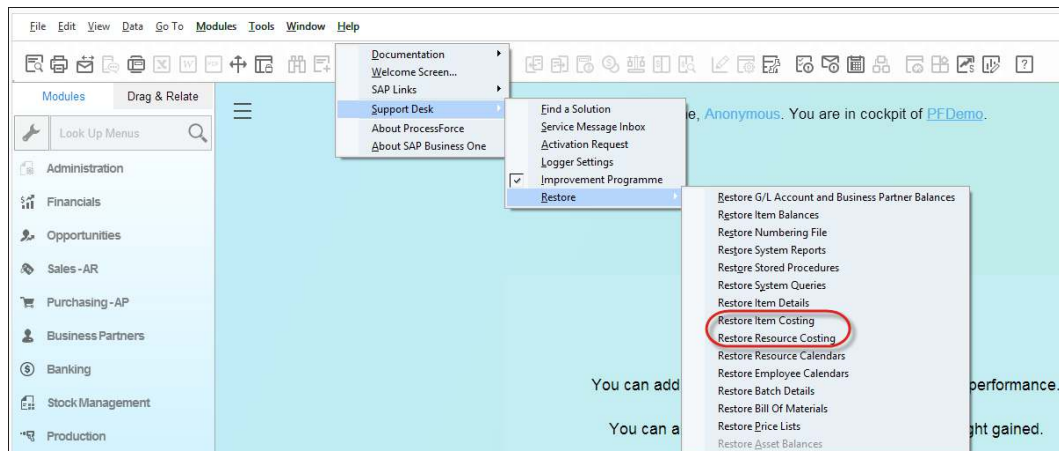
Costing Price Determination

Click [here](#) to get more information



Restore Functions

If you have added items into the Item Master Data form when ProcessForce is not installed and also is not running, to populate the corresponding costing objects, select the Restore Item Costing and Resource Costing.



Cost Categories

Path
Administration → Setup → Financials → Cost Categories

#	Cost Code	Cost Name	Active
1	000	Standard cost	<input checked="" type="checkbox"/>
2	001	Next Years Standard	<input checked="" type="checkbox"/>
3	002	Simulation	<input checked="" type="checkbox"/>
4			<input checked="" type="checkbox"/>

Default Overhead Rates

Path
Administration → Setup → Inventory → Item Groups

By Item Group default fixed and variable overhead rates can be added.

When a new Item is created as part of the Item Group, these values will be automatically added to the corresponding fields within the Item Costing form

Item Groups - Setup

Item Group Name:

General Accounting ProcessForce

Inherit from General Settings
Batch Template:

Inherit from General Settings
Serial Template:

Inherit from General Settings
 Expiry Date
 Consume by date

Shelf Life interval:

Inspection interval:

Expiry Eval Type:

Expiry Eval Template:

Fixed Overhead:

Fixed Overhead %:

Variable Overhead:

Variable Overhead %:

Inherit from General Settings
Batch Queue:

Inherit from General Settings
Default Batch Status for SAP Receipt Document:

Default Quality Control Status for SAP Receipt Document:

Default Batch Status for ProcessForce Receipt Document:

Default Quality Control Status for ProcessForce Receipt Document:

Warning Prior Expiry Days:

Warning Prior Consume Days:

Shelf Life interval: 1d

Expiry Eval Type: Current date

Default Batch Status for SAP Receipt Document: Released

Default Quality Control Status for SAP Receipt Document: Passed

Default Batch Status for ProcessForce Receipt Document: Released

Default Quality Control Status for ProcessForce Receipt Document: Passed

Add Cancel

- Default fixed and overhead values are automatically added to the item costing record, for all defined cost categories, except 000

Item Costing

Item Code: subcontract
 Item Name:

Revision Code: code00
 Cost Category Code: 002
 MRP Type: Buy

Valuation Method: Standard
 UoM:
 Batch Size: 1.000



















Costing Details		Coproducts		Scrap		Rolled Cost							
#	Warehouse	Type	Price List	When 0	Item Cost	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable ...
1	01	Automatic			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	SubCon	Automatic			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00







OK Cancel Update Costing

Changing Default Overhead Values










- Change any of the default values and press Update button
- System Message will display
- To use these new values on all existing Item Costing records press OK and then Update
- To use these new values for new items being added to the system press the X in the window and Update
- Any new item added to the database will use these new default values

1.1.3 Costing Price Determination

	Costing					
	Standard		Moving Average		FIFO & Serial Number/Batch	
	Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description
Final Good		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.
Co-Product		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.
Scrap		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.		Value is copied from CC000 on MOR creation.
Co-Product (back-flush)	 (On MOR)	Value is copied from CC000 on MOR creation.	 (On MOR)	Value is copied from CC000 on MOR creation.	 (On MOR)	Value is copied from CC000 on MOR creation.
Scrap (back-flush)	 (On MOR)	Value is copied from CC000 on MOR creation.	 (On MOR)	Value is copied from CC000 on MOR creation.	 (On MOR)	Value is copied from CC000 on MOR creation.
	Dynamic Costing					
	Standard		Moving Average		FIFO & Serial Number/Batch	
	Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description
Final Good		Value is computed from all receipts and issues (standard price variances are posted). We also update price on Pick		Value is computed with overhead and all receipts and issues (update price on Pick after receipt).		Value is computed with overhead and all receipts and issues (update price on Pick after receipt).

		Costing				
		Receipt after receipt.				
Co-Product		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.
Scrap		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.

Costing						
Co-Product (back-flush)		Value is copied from CC000 on Goods Receipt.		Value is copied from CC000 on Goods Receipt.		Value is copied from CC000 on Goods Receipt.
Scrap (back-flush)		Value is copied from CC000 on Goods Receipt.		Value is copied from CC000 on Goods Receipt.		Value is copied from CC000 on Goods Receipt.
Item Costing						
Standard		Moving Average		FIFO & Serial Number/Batch		
Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description	Can Change on Pick Receipt	Description	
	Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 . When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.	
Co-Product		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created		Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000 .

		Costing				
		<p>created directly from CC000. When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>		<p>directly from CC000. When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>	<p>When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>	
Scrap		<p>Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000. When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>		<p>Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000. When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>		<p>Value is copied from CC000 on Pick Receipt creation and is updated when Goods Receipt is created directly from CC000. When quantity on Pick Receipt is changed we update price field (for informational purpose). We also update price on Pick Receipt after Goods Receipt is created.</p>
Co-Product (back-flush)		<p>Value is copied from CC000 on Goods Receipt.</p>		<p>Value is copied from CC000 on Goods Receipt.</p>		<p>Value is copied from CC000 on Goods Receipt.</p>
Scrap (back-flush)		<p>Value is copied from CC000 on Goods Receipt.</p>		<p>Value is copied from CC000 on Goods Receipt.</p>		<p>Value is copied from CC000 on Goods Receipt.</p>

1.2 Revision and Routing Costing Defaults

Costing for Item can be set by default for a specific Revision and Routing.

On this page:

- [Revisions](#)
- [Production Process](#)

1.2.1 Revisions

ProcessForce can cost a product at a revision level.

Within the Item Details form select the Revision to be used for cost calculation and check the field "Is Costing Default".

The screenshot shows the 'Item Details' form with the 'Revisions' tab selected. The form displays a table of revisions with columns for #, Revision Code, Revision Name, Status, Valid From, Valid To, Is Default, Is MRP Default, Is Costing Default, and Remarks. The 'Is Costing Default' checkbox for revision code01 is highlighted with a red circle.

#	Revision Code	Revision Name	Status	Valid From	Valid To	Is Default	Is MRP Default	Is Costing Default	Remarks
1	code00	Summer	Active	01.05.15	28.11.17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	code01	Winter	Active	01.11.15	30.04.18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3			Active			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2.2 Production Process

- Multiple routes can be defined for a product
- To include the costs of the resources defined within the route, select and check which routing is the default for cost calculation
- If there is a single route, it is still required to check the field.

Production Process

Item Number: Choc Fruit & Nut
 Description: Chocolate Fruit and Nut
 Revision: default

Routing: Operation Bind

#	Routing Code	Routing Name	Default	Roll-up Default	Remarks
1	01	Integrated Process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	02	Mixing Process	<input type="checkbox"/>	<input type="checkbox"/>	
3			<input type="checkbox"/>	<input type="checkbox"/>	

Operation Sequence	Operation Code	Operation Name	Operation Overlay Sequence	Operation Overlay Code	Overlay Quantity	Remarks
10	01	Mix & Pack			0.00	
20	02	Packing			0.00	
30	08	Paint & Pack			0.00	
0					0.00	

Resource Code	Rresource Name	Default	Resource Type	Issue Type	Machine Code	Number of Resources	Has Cycles	Cycle Capacity	Queue Time

OK Cancel

1.3 Item Costing

Overview

ProcessForce costing uses a bottom up approach to calculate the cost of a semi-finished and finished product.

Each Item Master which is a part of a Bill of Materials, needs to be defined to calculate the cost of the semi and finished product for Standard Costing, and to also calculate an Estimated Moving Average.

- Moving Average and FIFO: These forms can also be used to include fixed and variable overhead values
- Warehouses: If there are multiple warehouse defined for the item, then multiple data rows will be created, thus allowing different fixed and overhead values to be defined by warehouse
- Revision Codes: If there are multiple revisions for the same item, a unique item costing record will be created

On this page:

- [Overview](#)
- [Purchased Materials](#)
- [Semi-Finished Products](#)
- [Finished Products](#)
- [Distribution Rules and Cost Dimensions](#)

- Cost Category Code: if there are multiple cost categories, a unique item costing record will be created

Please check [Configuration](#) section before running Costing functions.

1.3.1 Purchased Materials

For each Buy item an item cost record will be created.

Use this form to determine where the Item Cost value will come from for calculation purposes and to manually add fixed and variable overhead values.

- Select the Item Code, Revision and Cost Category
- Select where the cost will come from:
 - Price List – choose which Price List where the value will come from, and the value will populate the Item Cost field (grayed out)
 - Price List (no roll-up) – a item which has an inventory value, included within the bill of materials, but the cost not considered in the cost calculation of the semi-finished and finished product
 - Manual – enter a value into the Item Cost field
 - Manual (no roll-up) – a item which has an inventory value, included within the bill of materials, but the cost not considered in the cost calculation of the semi-finished and finished product

- Select the Price List where the Item Cost will come from

- Within the Rolled Cost Tab all the values are displayed and the value in the TC Total column is copied to the Item Costing field within SAP Business One Item Master Details, Inventory Data Tab.

Costing Details		Coproducts			Scrap			Rolled Cost															
#	Routing	Warehouse	ATL Material	ATL Resources	ATL Fixed O/H	ATL Variable O/H	ATL Total	Material	LL Resources	LL Fixed O/H	LL Variable O/H	LL Total	CA Material	CA Resources	CA Fixed O/H	CA Variable O/H	CA Total	TC Material	TC Resources	TC Fixed O/H	TC Variable O/H	TC Total	
1	01		1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
2	SubCon		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1.3.2 Semi-Finished Products

For each Make item an item cost record will be created.

Use this form to determine where and how the Item Cost value will come from for calculation purposes and to manually add fixed and variable overhead values.

This form is also used to calculate the costs of semi-finished and finished product by performing a cost roll-up using the "Update Costing" function

- Select the Item Code, Revision and Cost Category
- Select where the cost will come from
 - Automatic – system will calculate the cost
 - Automatic (no roll-up) – item which has an inventory value, included within the bill of material of a higher level bill of materials, but the cost is not considered in the cost calculation
 - Price List – choose which Price List where the value will come from, and the value will populate the Item Cost field (grayed out)
 - Price List (no roll-up) – an item which has an inventory value, included within the bill of materials, but the cost not considered in the cost calculation of the semi-finished and finished product
 - Manual – enter a value into the Item Cost field
 - Manual (no roll-up) – an item which has an inventory value, included within the bill of materials, but the cost not considered in the cost calculation of the semi-finished and finished product.

Item Costing

Item Code: Recipe-02
Item Name: Recipe-02

Revision Code: 000006
Cost Category Code: 000
MSP Type: Make

Valuation Method: Standard
UoM: KG
Batch Size: 1.000

Costing Details		Coproducts		Scrap		Rolled Cost											
#	Warehouse	Type	Price List	When 0	Item Cost	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable O/H % Cost	Variable O/H Other	Variable O/H Sub-Total	Total	Remarks
1	02	01	Automatic		0.00	4.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	
2	04	01	Subcontractor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

OK Cancel Update Costing

- Rolled Cost Tab displays a summary of the calculated costs
- The summary values for a single level bill of material displayed within the "At this Level" – ATL Materials, Resources, Fixed and Variable Overhead columns
The TC Total value is the calculated cost of the bill of materials and is the value which is copied to the SAP Business One Item Cost when performing a [cost roll-over](#) to cost category 000
- If performing a cost rollover to a cost category which is not 000, these are the values that are copied, to allow for what-if and cost simulation.

Item Costing

Item Code: Recipe-02
Item Name: Recipe-02

Revision Code: 000000
Cost Category Code: 001
MSP Type: Make

Valuation Method: Standard
UoM: KG
Batch Size: 10.000

Costing Details		Coproducts		Scrap		Rolled Cost																
#	Routing	Warehouse	ATL Material	ATL Resources	ATL Fixed O/H	ATL Variable O/H	ATL Total	LL Material	LL Resources	LL Fixed O/H	LL Variable O/H	LL Total	CA Material	CA Resources	CA Fixed O/H	CA Variable O/H	CA Total	TC Material	TC Resources	TC Fixed O/H	TC Variable O/H	TC Total
1	02	01	0.00	2.633	0.363	0.263	4.860	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.861	2.633	0.263	0.363	4.111
2	04	01	1.000	0.800	0.000	0.000	1.800	0.000	0.000	0.000	0.000	0.000	-0.039	0.000	0.000	0.000	-0.039	0.761	0.800	0.000	0.000	1.561

OK Cancel Update Costing

1.3.3 Finished Products

Item Costing

Item Code: Product-B
Item Name: Product-B

Revision Code: 000000
Cost Category Code: 001
MSP Type: Make

Valuation Method: Standard
UoM: EA
Batch Size: 100.000

Costing Details		Coproducts		Scrap		Rolled Cost										
#	Warehouse	Type	Price List	Item Cost	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable O/H % Cost	Variable O/H Other	Variable O/H Sub-Total	Total	Remarks
1	01	Automatic *		11.823	0.000	0.00	0.000	0.000	1.000	1.000	0.00	0.000	0.000	0.000	11.823	
2	02	Automatic **		0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	
3	03	Automatic **		0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	

Update Cancel Update Costing

Routing		Wareh.	ATL Material	ATL Resources	ATL Fixed O/H	ATL Variable O/H	ATL Total	LL Material	LL Resources	LL Fixed O/H	LL Variable O/H	LL Total	CA Material	CA Resources	CA Fixed O/H	CA Variable O/H	CA Total	TC Material	TC Resources	TC Fixed O/H	TC Variable O/H	TC Total
1	03	01	7.000	0.203	1.030	1.030	9.263	1.068	2.926	0.293	0.293	4.579	0.000	0.000	0.000	0.000	0.000	8.068	3.129	1.313	1.313	13.823

1.3.4 Distribution Rules and Cost Dimensions

- For details click [Item - Distribution and Cost Dimensions](#)

1.3.5 Batch Size Costing

Background

Within the production order process, there are activities which have a fixed time, for example Setup, Queue, Stock and fixed time periods for Run Time.

The value within the batch size field on Bill of Material form is divided into all the costs associated with Setup, Stock Time and Queue Time, and when Run Time is configured as Fixed seconds/minutes/hours

Below is a working example:

On this page:

- [Background](#)
- [Master Data Setup](#)
- [Run Time](#)
- [Cycles and Run Time](#)
- [Example](#)

Master Data Setup

BOM batch size = 1000

Setup Hourly Rate = 10, Fixed Overhead = 10 and Variable Overhead = 10

Run Time Hourly Rate = 10, Fixed Overhead = 10 and Variable Overhead = 10

The costs used in cost roll-up for the Item will be

Setup = 2 hours: Hourly rate = $2 \times 60 \times 10/1000$, Fixed Overhead = $2 \times 60 \times 10/1000$ and Variable Overhead = $2 \times 60 \times 10/1000$

Setup = 30 minutes: Hourly rate = $30/60 \times 10/1000$, Fixed Overhead = $30/60 \times 10/1000$ and Variable Overhead = $30/60 \times 10/1000$

Run Time

When a Run Time is configured to be Fixed seconds/minutes/hours, the Hourly Rate, Fixed and Variable Overhead values for the resource are divided by the Batch Size on the bill of material

Cycles and Run Time

If the cycle field on the resource is checked, normally the Run Time will be defined as Fixed seconds/minutes/hours

If this is the case then the cost of the time will be the Hourly Rate, Fixed and Variable Overhead values for the resource divided by the cycle capacity

Example

On the resource record the cycle field is checked

The cycle capacity = 500

Run Time = 2 hours @ fixed hours

Batch Size = 1000

Setup = 2 hours: Hourly rate = $2 \times 60 \times 10/1000$, Fixed Overhead = $2 \times 60 \times 10/1000$ and Variable Overhead = $2 \times 60 \times 10/1000$

Run Time = 2 hours: Hourly rate = $2 \times 60 \times 10/500$, Fixed Overhead = $2 \times 60 \times 10/500$ and Variable Overhead = $2 \times 60 \times 10/500$

Stock and Queue Time are treated the same as Run Time when the time is configured as Fixed seconds/minutes/hours.

1.3.6 Multistructure Fixed and Variable Overhead Costs

In ProcessForce it is possible to define not only simple but also structured Fixed and Variable Overhead costs. This allows to differentiate the cost and present a sum of it.

On this page

- [Settings](#)
 - [General Settings](#)
 - [Overhead Types definition](#)
- [Usage of the option](#)

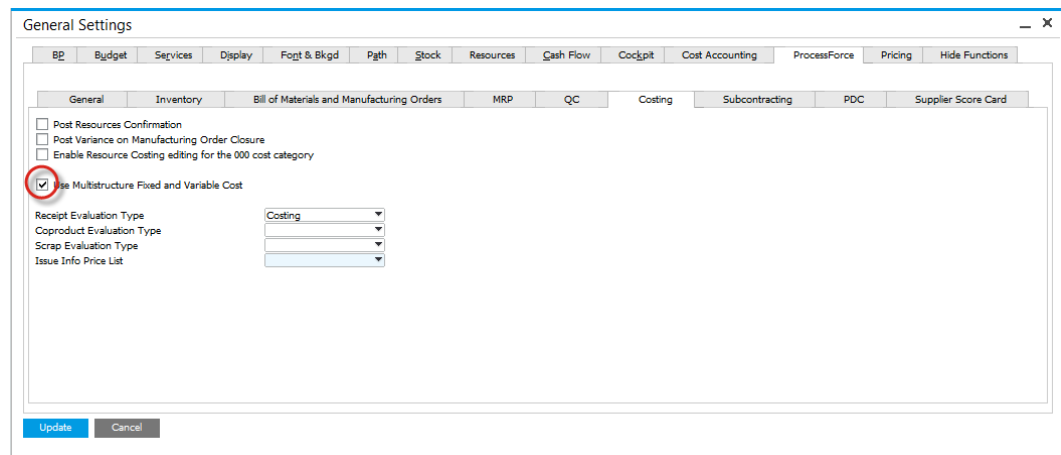
Settings

General Settings

Path

Administration → System Initialization → General Settings → ProcessForce tab → Costing tab

Multistructure Fixed and Variable Overhead Costs option is available after checking the check box in General Settings form, ProcessForce tab, Costing tab:



The screenshot shows the 'General Settings' window with the 'ProcessForce' tab selected. Within this tab, the 'Costing' sub-tab is active. The 'Use Multistructure Fixed and Variable Cost' checkbox is checked and highlighted with a red circle. Other visible options include 'Post Resources Confirmation', 'Post Variance on Manufacturing Order Closure', and 'Enable Resource Costing editing for the 000 cost category'. Below these are dropdown menus for 'Receipt Evaluation Type', 'Coproduct Evaluation Type', 'Scrap Evaluation Type', and 'Issue Info Price List'. The 'Update' and 'Cancel' buttons are at the bottom.

Overhead Types definition

Path

Administration → Setup → Financials → Overhead Types

In this form Costs types can be set. After its definition Cost types can be used on Item Costing and Resource Costing form. You can define:

- Code
- Name
- Type – Fixed or Variable

#	Code	Name	Type
1	F-01	Transport	Fixed
2	F-02	Marketing	Fixed
3	F-03	Additional Costs	Fixed
4	V-01	Sell Costs	Variable
5	V-02	Other Costs	Variable
			Fixed
			Variable

Update Cancel

Usage of the option

Path
 Costing → Item Costing

Predefined Overhead Types can be used on Costing Details tab on Item Costing form and on Resource Costing the following columns:

- Fixed O/H
- Fixed O/H %
- Fixed O/H Other
- Variable O/H
- Variable O/H %
- Variable O/H Other

Costing Details				Coproduckts		Scrap		Rolled Cost							
#	Warehouse	Type	Price List	When 0	Item Cost	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable O/H % Cost	Variable O/H Other	Varia...
1	01	Manual			0.00	10.00	6.00	0.40	5.00	7.00	5.00	1.00	0.1	5.00	
2	02	Manual			0.00	0.00				0.00	0.00	0.00	0.00	0.00	

OK Cancel Update Costing

The option is available for entries related to different than 000 cost category (changes recorded for any other cost category can be loaded to 000 cost category by using [roll-over](#) procedure).

After choosing the option you can choose desired costs and set a value for it (only cost marked as fixed are available to choose for fixed costs):

#	Code	Name	Value
1	F-01	Transport	1.00
2	F-02	Marketing	4.00
3	F-03	Additional Costs	4.00

A costs sum will be added to the corresponding grid after clicking OK button:

#	Warehouse	Type	Price List	When 0	Item Cost	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H % Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable O/H % Cost	Variable O/H Other
1	01	Autc			0.00	9.00	3.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00
2	SubCon	Autc			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Choosing Multistructure Overhead Costs option again displays previously saved costs and its values and allows to change it.

1.4 Resource Costing

Resource Costing is a function that allows to value a Resource work during production process. Combine with Item Costing (that holds materials costs), this option allows to value the whole production based on a given Manufacturing Order.

On this page:

- [General information](#)
 - [Resource Cost Calculation](#)
 - [Labor](#)
- [Resource Accounting](#)
 - [Configuration](#)
 - [Resource Account Definition](#)
- [Distribution Rules and Cost Dimensions](#)

Please check [Configuration](#) section before running Costing functions.

Path

Costing > Resource Costing

1.4.1 General information

Resource Costing is created automatically on an adding of a new Resource to the system. For every Resource separate Resource Costing is created for each of [Cost Categories](#) in the system (Note that Resource Costing for Cost Category 000 cannot be edited on this form).

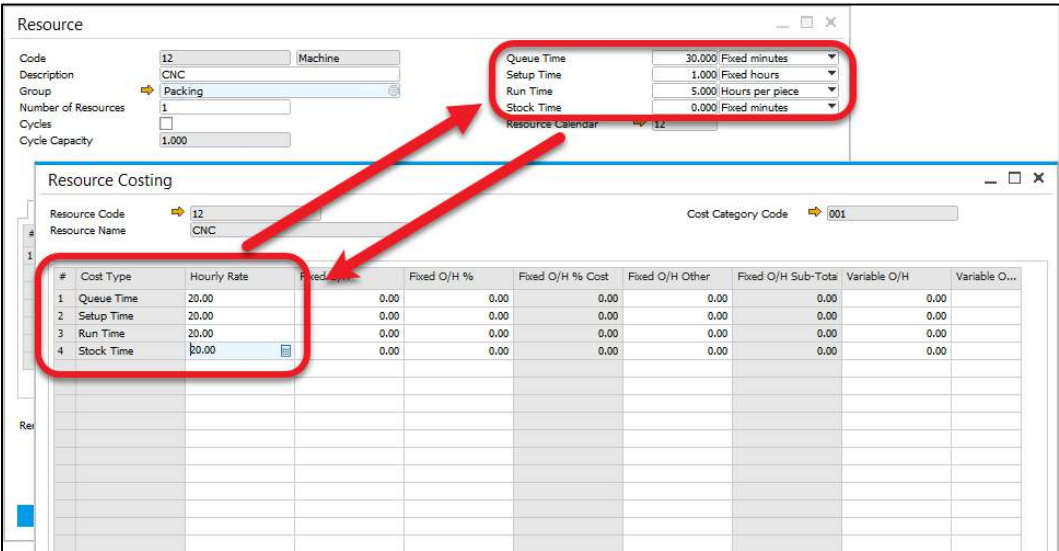
During the Item [Cost Roll-up](#) for a semi-finished or finished product these fixed and variable overhead values will be displayed within the Fixed and Variable Overhead columns.

Resource Cost Calculation

#	Cost Type	Hourly Rate	Fixed O/H	Fixed O/H %	Fixed O/H % Cost	Fixed O/H Other	Fixed O/H Sub-Total	Variable O/H	Variable O/H %	Variable O/H % Cost	Variable O/H Other	Variable O/H Sub-Total	Total	Remarks
1	Queue Time	1,00	2,50	5,00	0,05	0,00	2,55	2,00	1,00	0,01	0,20	2,21	5,76	
2	Setup Time	1,00	5,00	5,00	0,05	0,00	5,05	1,00	1,00	0,01	0,30	1,31	7,36	
3	Run Time	20,00	10,00	5,00	1,00	20,00	31,00	4,00	3,00	0,60	0,30	4,60	65,90	
4	Stock Time	3,00	1,00	5,00	0,35	0,00	1,35	3,00	1,00	0,03	0,30	3,33	6,48	

Overall Resource Cost calculation is based on three elements:

1. Resource Cost – in Resource Costing is calculated for 1 hour of work. Resource cost taken under consideration in Item Costing is calculated based on two values: Resource Costing Hourly Rate and Resource Times values (default Resource Times values for a specific Resource are defined in Resource form but it can be later changed for a specific Operation and for specific Production Process):



Resource Cost is calculated on the following basis:

	Unit	Pattern
1	Fixed seconds	V(H/36000)
2	Fixes minutes	V(H/60)
3	Fixed hours	V × H
4	Seconds per piece	V/(3600 × H)
5	Minutes per piece	V/(60 × H)
6	Hours per piece	V × H
7	Pieces per second	1/V/(3600 × H)
8	Pieces per minute	1/V/(60 × H)
9	Pieces per hour	1/(T × H)

H - Hourly Rate

V - a value for a given time, for a Resource, e.g. on the screenshot above Queue Time value is 30

2. Fixed Overhead Cost – fixed overhead is a set of costs that usually do not change with changes in activity, e.g. factory rent. It can be defined by three values:

Fixed O/H – main fixed overhead cost

Fixed O/H % – percent value of an Hourly Rate to be added to fixed overhead

Fixed O/H % Cost – value calculated based on Hourly Rate and Fixed O/H %

Fixed O/H Other – it is possible to define other fixed costs

Fixed O/H SubTotal – overall fixed overhead value: Fixed O/H + Fixed O/H % Cost + Fixed O/H Other

3. Variable Overhead Cost – costs that may vary a lot in relation to production output changes, e.g. production supplies.

Variable O/H – main variable overhead cost

Variable O/H % – percent value of an Hourly Rate to be added to variable overhead

Variable O/H % Cost – percent value of an Hourly Rate to be added to variable overhead

Variable O/H Other – it is possible to define other variable costs

Variable O/H Sub-Total – overall variable overhead value: Variable O/H + Variable O/H % Cost + Variable O/H Other

4. Total

Added up values from the following fields: Hourly Rate, Fixed O/H SubTotal, Variable O/H SubTotal.

It is possible to define structured overhead costs. Click [here](#) to find out more.

Labor

Resource Costs are expressed as an Hourly rate, and this Hourly rate may be a combined machine and labor value.

If machine and labor rates are required separately, there are two ways to do it:

- Adding the labor rate as fixed overhead (or variable overhead) as a specific value, e.g. 10 or as a % of the Hourly rate, e.g. 10% of 20 = 2 (you can use [Multistrucre Fixed and Variable Overhead Costs](#) option)
- Create a specific resource called Labor and assign its own costs and Resource Accounting codes

1.4.2 Resource Accounting

Configuration

Path:

Administration > Setup > Financials > Resources Accounting

Resource Accounting is a set of connections between specific Resource related costs and Accounts. This set of accounting rules can be later assign to one or more Resources.

Currently, only the Account, Fixed Overhead and Variable Overhead accounts are used for financial posting. Variance, Fixed and Variable Overhead Variance will be used in a later release.

Currently all resource related variances are posted into a single WIP variance posting (this is the same for inventory items)

If using different time types, each type can have a separate account code.

Note that each of the Resource Accounts (Title column) have to have Accounts (Accounts Code) assigned for Resource Costing to work properly.

The screenshot shows the 'Resources Accounting' configuration window. The 'Resource Accounting Code' is set to '01' and the 'Resource Accounting Name' is 'Resource Accounting'. A table lists various resource accounts with columns for Title, Account Code, and Account Name. A red arrow points from the 'Account Code' column to the 'List of Accounts' dialog box. The dialog box shows a list of accounts with columns for #, Account Number, Account Name, and Account Balance. The account 'Called Up Capital Not Paid' (Account Number 100000) is selected.

Title	Account Code	Account Name
Queue Time Account		
Queue Time Fixed Overhead Account		
Queue Time Variable Overhead Account		
Queue Time Variance Account		
Queue Time Fixed Overhead Variance Account		
Queue Time Variable Overhead Variance Account		
Setup Time Account		
Setup Time Fixed Overhead Account		
Setup Time Variable Overhead Account		
Setup Time Variance Account		
Setup Time Fixed Overhead Variance Account		
Setup Time Variable Overhead Variance Account		
Run Time Account		
Run Time Fixed Overhead Account		
Run Time Variable Overhead Account		
Run Time Variance Account		
Run Time Fixed Overhead Variance Account		
Run Time Variable Overhead Variance Account		
Stock Time Account		
Stock Time Fixed Overhead Account		
Stock Time Variable Overhead Account		

#	Account Number	Account Name	Account Balance
1	100000	Called Up Capital Not Paid	0.00
2	100010	Uncalled Share Capital	0.00
3	101000	Capitalised Formation Expenses	0.00
4	101010	Capitalised Business Expansion Costs	0.00
5	101500	Accumulated Deprec. - Capitalised Formation Exp.	0.00
6	102010	Patents and Royalties	0.00
7	102020	Licences	0.00
8	102510	Accumulated Depreciation - Patents and Royalties	0.00
9	102520	Accumulated Depreciation - Licences	0.00
10	103000	Goodwill	0.00
11	103500	Amortisation - Goodwill	0.00

Resource Account Definition

Path

Production > Routings > Resources

Predefined Resource Accounting (see the previous paragraph) can be added to a Resource within the Resource form > Details tab.

If financial postings are required a Resource Accounting code has to be chosen. If financial postings are not required, then select No Posting.

The screenshot shows the 'Resource' form in SAP, specifically the 'Details' tab. The form is divided into several sections:

- Properties:** Code (02), Description (Pack), Group (Packing), Number of Resources (1), Cycles (checkbox), Cycle Capacity (1,000).
- Details:** Queue Time (0.000 Fixed minutes), Setup Time (1.000 Fixed hours), Run Time (1.000 Minutes per piece), Stock Time (0.000 Fixed minutes), Resource Calendar (02).
- Resource Accounting:** A dropdown menu is open, showing options: 'No Posting' (selected), 'Resource Accounting', and 'Resource Accounting 2'. This section is highlighted with a red circle.
- Dimensions:** Dimension 1 through Dimension 5, each with a menu icon.
- Issue Whs Code, Receipt Whs Code, Info:** Fields for warehouse codes and information.
- Remarks:** A text area for additional notes.
- Buttons:** 'Update' and 'Cancel' buttons at the bottom.

1.4.3 Distribution Rules and Cost Dimensions

For details click [Resources - Distribution and Cost Dimensions](#)

1.5.3 Cost Allocation

Item Costing

Item Code: Bottle-01
 Item Name: Bottle-01

Revision Code: code00
 Cost Category Code: 000
 MRP Type: Buy

Valuation Method: Standard
 UoM: EA
 Batch Size: 0.000

Costing Details		Coproducts		Scrap	Rolled Cost								
#	Warehouse	Sequence No.	Item Code	Item Name	Scrap Type	Type	Price List	When 0	Item Cost	Res...			
1	01	10	Scrap-01	Scrap-01	Scrap	Manual		0.00	0.00				
2	SubCon	10	Scrap-01	Scrap-01	Scrap	Manual		0.00	0.00				

OK Cancel

Item Costing

Item Code: Recipe-02
 Item Name: Recipe-02

Revision Code: code00
 Cost Category Code: 001
 MRP Type: Make

Valuation Method: Standard
 UoM: KG
 Batch Size: 10.000

Costing Details		Coproducts		Scrap	Rolled Cost																	
#	Routing	Warehouse	ATL Material	ATL Resource	ATL Fixed OH	ATL Variable OH	ATL Total	LL Material	LL Resource	LL Fixed OH	LL Variable OH	LL Total	CA Material	CA Resource	CA Fixed OH	CA Variable OH	CA Total	TC Material	TC Resource	TC Fixed OH	TC Variable OH	TC Total
1	02	01	1.000	2.633	0.263	0.263	4.160	0.000	0.000	0.000	0.000	0.000	-0.039	0.000	0.000	0.000	-0.039	0.961	2.633	0.263	0.263	4.121
2	04	01	1.000	0.800	0.080	0.080	1.960	0.000	0.000	0.000	0.000	0.000	-0.039	0.000	0.000	0.000	-0.039	0.961	0.800	0.080	0.080	1.921

OK Cancel Update Costing

1.6 Cost Categories

Here you can find information on Cost Categories: sets of costing data used for simulation of production costs and applying it to production.

On this page:

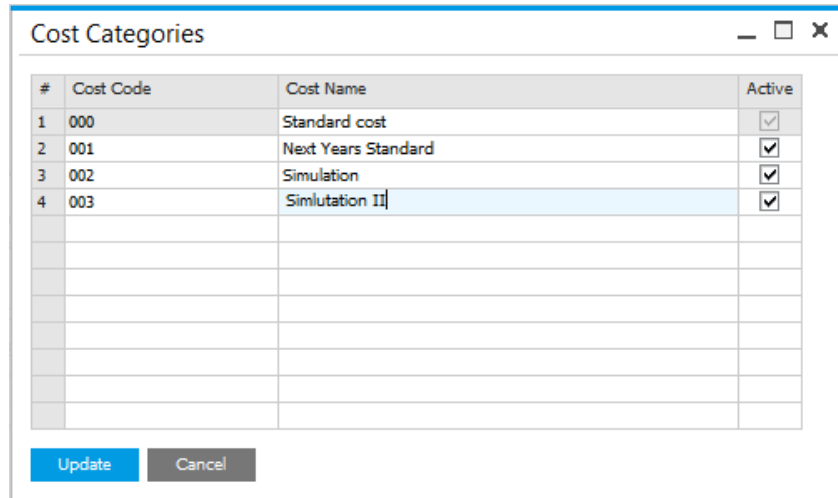
- [General](#)
 - [000 Cost Category – Standard Cost](#)
- [Cost Roll-Up](#)
 - [Perform the roll-up over the structure](#)
 - [Use final-goods' batch size value for semi-goods calculations](#)
- [Cost Roll-Over](#)
 - [Roll-over the costs of resources checkbox](#)
- [Inventory Revaluation – Standard Costing](#)

Please check [Configuration](#) section before running Costing functions.

1.6.1 General

Path

Administration → Setup → Financials → Cost Categories



#	Cost Code	Cost Name	Active
1	000	Standard cost	<input checked="" type="checkbox"/>
2	001	Next Years Standard	<input checked="" type="checkbox"/>
3	002	Simulation	<input checked="" type="checkbox"/>
4	003	Simulation II	<input checked="" type="checkbox"/>

Update Cancel

Cost Categories are different sets of costing data (Item Costing) for the same Items and Bill of Materials. In the same manner it allows to create multiple costing data sets for a specific Resource (Resource Costing).

Cost Categories are used for production cost simulation and for final production valuation.

You can define many Cost Categories: on adding Item to the system Item Costing for it is created for every Cost Category. Now you can define different data for different Item Costing for the same Item. In the same manner Resource Costing is created on adding a Resource to the system.

On adding a new Cost Category, Item Costing and Resource Costing records are created for it for all of the Items and Resources in the system.

000 Cost Category – Standard Cost

000 Cost Category is a basic cost category which defines final production valuation of an Item and is used on production documents.

This Cost Category has a specific status: it cannot be deleted, cannot be deactivated, its data cannot be changed on any of the other forms.

Any other Cost Category can be used for a costing simulation, but to make it applicable to the system, it is required to load it to 000 Cost Category by [Cost Roll-Over](#) procedure.

1.6.2 Cost Roll-Up

Path

Costing → Cost Roll-Up

Cost Roll-Up

Items

Item From → Recipe-02
To → Recipe-02

Item Group All

Properties Ignore

Warehouses

	Code	Name
<input checked="" type="checkbox"/>	→ 01	General Warehouse
<input checked="" type="checkbox"/>	→ 02	CP

Cost Categories

	Code	Name
<input checked="" type="checkbox"/>	→ 001	Next Years Standard
<input checked="" type="checkbox"/>	→ 002	Simulation
<input checked="" type="checkbox"/>	→ 003	Simulation II

Perform the roll-up over the structure
 Use final-goods' batch size value for semi-goods calculations

Run Cancel

The Cost Roll-Up function is used to calculate or re-calculate the costs of one or several items. These items would be semi-finished or finished products.

Select an Item or a range of Items for the cost roll-up. If the fields are not filled, Cost Roll-Up will be performed for all of the Items. If only From field is filled, Cost Roll-Up will be performed for all of the Items on the list starting from the chosen Item. If only To field is filled, Cost Roll-Up will be performed for all of the Items from the start on the list to the chosen Item. It is possible to narrow down the Items range to one of the Item Groups.

It is possible to choose specific Item Properties.

The procedure can be applied just to selected warehouses.

The procedure can be applied just to selected cost categories. Note that the procedure cannot be applied to 000 cost category (you can only perform Roll-Up on another cost category and then load it to 000 Cost Category by Roll Over procedure).

Cost Roll-Up is always performed for every revision.

When performing a Cost Roll-Up, all costing forms should be closed, if not a message will be displayed to close the appropriate forms.

Perform the roll-up over the structure

Perform the roll-up over the structure check box is unchecked by default. When it is checked roll-up will be performed over the whole product structure. If the check box is not checked, the lowest level of an Item (Raw Materials level) is not recalculated.

When "Perform the roll-up over the structure" checkbox is checked, the costs are calculated in the following way:

1. First, the structure is built for the Items selected on the Roll-Up form. This structure is generated based on the Bill of Materials data and the relations with other Bill of Materials.

Example

Let's say that you have a following Final Good product: **FG-01**, which has only one raw material **SG-01**, which is also a Bill of Materials, which has only one raw material: **RM-01**, that is a standard Item:

FG-01:

- SG-01:
 - RM-01

If the checkbox above mentioned is checked, then:

1. First, the costs will be refreshed and calculated for the RM-01 raw material.
2. Then the costs of the SG-01 semi-good product will be calculated based on the RM-01 data (that was calculated during the 1st step) and its own costing configuration (fixed, variable, etc.).
3. At the end the costs of the FG-01 final-good product will be calculated based on the SG-01 data (which was calculated during the 2nd step) and its own costing data (fixed, variable, etc.)

RM-01 recalculation (saving) → SG-01 recalculation (saving) → FG-01 recalculation (saving)

If this checkbox is not checked, only the 2nd and 3rd steps are performed – and the costs are not refreshed/recalculated for the lowest level (Raw Materials, in this case: RM-01). The costs are recalculated/refreshed only for the FG-01 final-good product and SG-01 semi-finished product based on the data saved for the RM-01 during the previous roll-up performance.

SG-01 recalculation → (recalculation) FG-01 (saving)

Use final-goods' batch size value for semi-goods calculations

This option defines if the final goods' Batch size covers also semi-goods calculations.

Batch size is an option available on Bill of Materials header:

The screenshot shows the 'Bill of Materials' header form. The 'Batch Size' field is highlighted with a red circle and contains the value '5,000'. Other fields include 'Item Code' (Recipe-02), 'Type' (Internal), 'Quantity' (1,000), 'Factor' (1,000), and 'Yield' (100,00). The 'UoM' is set to 'KG'.

It defines the most suitable production quantity, e.g. producing 5 pieces of a certain Item is an optimal way to produce it (producing less is not profitable). Batch Size is 1 by default but can be changed.

Example

We have the following product structure:

FG-01:

- SG-01:
 - RM-01

Batch Size for Item FG-01 is set up to 10.

Batch Size for Item SG-01 is set up to 5.

If the checkbox above mentioned is checked Roll-Up will be performed with all the Items in the structure inheriting Batch Size from FG-01 Item: 10 pieces.

If the checkbox is not checked all the semi-finished products (and top, finished product) in the structure keeps its Batch Size: 10 pieces for FG-01, 5 pieces for SG-01.

1.6.3 Cost Roll-Over

All of the Cost Categories apart from 000 Cost Category are cost simulations. To make them relevant during production process it have to be copied to 000 Cost Category. Copying values between Cost Categories can be done using Roll-Over option.

The Cost Roll-Over function is used in the following:

- To copy costing values into Cost Category 000 to update the SAP Business One Item Cost field (only for Standard Costing)
- To copy values from one Cost Category to another to perform simulation and what-if calculations
- To update the Cost Category 000 record for Resource Costs.

Cost Roll-Over

Items

Item From → Recipe-02
To → Recipe-02

Item Group All

Properties Ignore

Warehouses

	Code	Name
<input checked="" type="checkbox"/>	→ 01	General Warehouse
<input checked="" type="checkbox"/>	→ 02	CP

Cost Categories

From Simulation II To Standard cost

Roll-over

Run

Standard cost
Next Years Standard
Simulation
Simulation II

To perform Cost Roll-Over:

- Select an Item or a range of Items in the same manner as on [Cost Roll-Up](#) form
- Choose Warehouses that will be affected by the process
- Choose from which Cost Category to which one data will be transferred

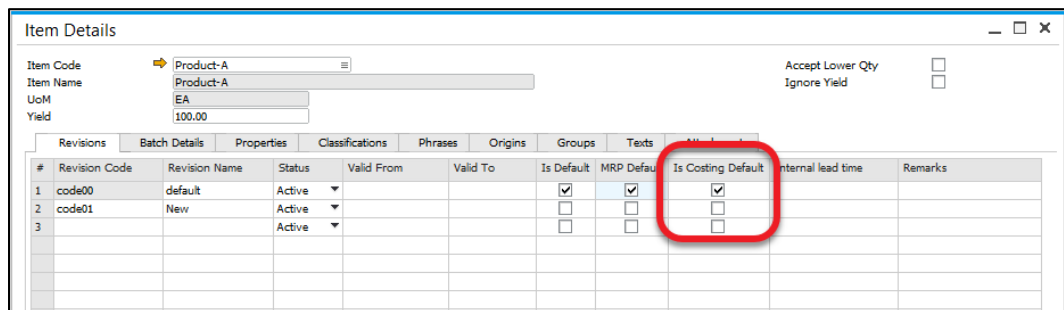
Roll-over the costs of resources checkbox

Checking or unchecking this check box conditions whether Resource costs will be taken under consideration during Roll-Over procedure, or Item Costs will be copied.

1.6.4 Inventory Revaluation – Standard Costing

If there is a difference between the current cost, and the rolled over cost, an Inventory Revaluation transaction is automatically generated.

Inventory Revaluation is generated only for revision with **Is Costing Default** field marked:



The screenshot shows the 'Item Details' window for 'Product-A'. The 'Revisions' tab is active, displaying a table with the following data:

#	Revision Code	Revision Name	Status	Valid From	Valid To	Is Default	MRP Defau	Is Costing Default	Internal lead time	Remarks
1	code00	default	Active			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
2	code01	New	Active			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3			Active			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

The 'Is Costing Default' checkbox for revision 1 is highlighted with a red circle.

This applies to Standard Costing valuation only.

1.7 Projects

The concept of adding to SAP Business One Projects to ProcessForce forms and documents, operates in the same way as Distribution Rules and Cost Dimensions are managed.

View the [Distribution and Cost Dimensions](#) for details.

1.8 Distribution and Cost Dimensions

Introduction

Currently Distribution Rules and Cost Centers can only be added to Items and added on the following ProcessForce master data forms and documents:

- Bill of Materials
- Manufacturing Orders
- Pick Receipt
- Pick Order
- Roll Back correction

On this page:

- [Introduction](#)
- [Configuration](#)

Related pages:

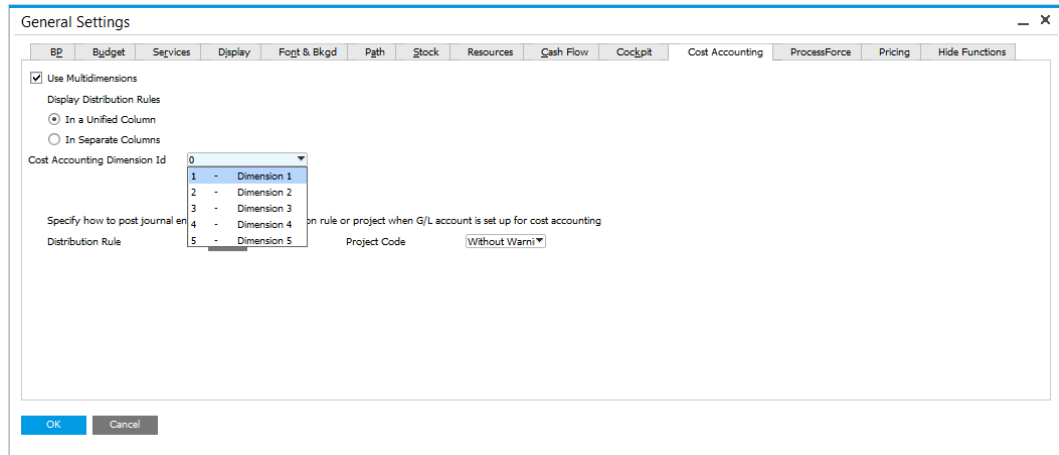
- [Item - Distribution and Cost Dimensions](#)
- [Resources - Distribution and Cost Dimensions](#)

Distribution Rules and Cost Centers have been also added to Resources and are available on the following master data forms and corresponding documents:

- Resources
- Operations
- Routings
- Production Process
- Manufacturing Orders
- Time Recording
- Time Correction
- Journals

1.8.1 Configuration

- SAP Business One is configured as the below settings to determine how many dimension fields and columns should be displayed in the appropriate ProcessForce forms.
- The configuration is the same for Items and Resources



1.8.2 Item - Distribution and Cost Dimensions

Introduction

Currently Distribution Rules and Cost Centers can only be added to Items and added on the following ProcessForce master data forms and documents:

- Bill of Materials
- Manufacturing Orders
- Pick Receipt
- Pick Order
- Roll Back correction

On this page

- [Introduction](#)
- [Master Data](#)
 - [Bill of Materials](#)
 - [Manufacturing Orders](#)
 - [Pick Issues](#)
 - [Goods Issues](#)
 - [Pick Receipt](#)
 - [Goods Receipt](#)

Master Data

Distribution Rules can be allocated as follows, and once set at this level will be copied to the related forms, as per the list above:

- Bill of Materials Header
- Item, CoProduct and Scrap Lines

Bill of Materials

- Select the Distribution rules for the appropriate dimensions

Bill of Materials

Item Number: Recipe-02 Type: Internal
Description: Recipe-02
Revision: default
Quantity: 1.000 UoM: KG
Factor: 1.000
Warehouse: 01

Distribution Rules: 01
Project:
MRP Def.
Batch Size: 1.000

#	Items	Coproducts	Scrap	WIP Items	Attachments
1)*Items.U_Factor(10)*Items.U_Quantity(10)*100/(100 - Items.U_ScrapPercentage(10))				
2)*Items.U_Factor(20				
3)*Items.U_Factor(30				
4)*Items.U_Factor(40				
5					

Select Distribution Rule

#	Dimensions	Distr. Rule Code	Distr. Rule Name
	Dimension1	01	01

OK Cancel

Remarks

OK Cancel You Can Also

- Using the Form Setting for the form select the dimensions to be displayed

Bill of Materials

Item Number: Recipe-02 Type: Internal
Description: Recipe-02
Revision: default
Quantity: 1.000 UoM: KG
Factor: 1.000
Warehouse: 01

Distribution Rules: 01: 02
Project:
MRP Def.
Batch Size: 1.000

Form Settings - Bill of Materials

Column	Visible	Active
Scrap %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Result	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Formula	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
UoM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Issue Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Distribution Rule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dimension 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dimension 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dimension 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dimension 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remarks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Subcontracting Item	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Distribution R...	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Project	Remarks
01						

OK Cancel Restore Default

Remarks

OK Cancel You Can Also

- For each line select the distribution rule

Bill of Materials

Item Number: Recipe-02, Type: Internal, Distribution Rules: 01; 02
 Description: Recipe-02
 Revision: default
 Quantity: 1.000, UoM: KG
 Factor: 1.000
 Warehouse: 01

#	UoM	Type	Issue Type	Distribution R...	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Project	Remarks
1	%10	KG	Buy	Manual	01					
2	%20	KG	Buy	Manual						
3	%30	KG	Buy	Backflush						
4	%40	KG	Buy	Backflush						
5										

List of Distribution Rules

Find:

#	Distribution Rule	Loading Factor Name
1	01	01
2	02	02

Remarks:

Buttons: OK, Cancel, Choose, Cancel, New, You Can Also

Manufacturing Orders

- Based on the Bill of Materials, the dimensions are copied into the Manufacturing Order

Bill of Materials

Item Number: Recipe-02, Type: Internal, Distribution Rules: 01; 02
 Description: Recipe-02
 Revision: default
 Quantity: 1.000, UoM: KG
 Factor: 1.000
 Warehouse: 01

#	UoM	Type	Issue Type
1	%10	KG	Buy
2	%20	KG	Buy
3	%30	KG	Buy
4	%40	KG	Buy
5			

Remarks:

Buttons: OK, Cancel

Manufacturing Order

Item Code: Recipe-02, Type: Internal, Series:
 Item Name: Recipe-02, Status: Scheduled
 Revision: default, Routing: 02
 Warehouse: 01, Required Date: 15.05.15
 Planned Quantity: 10.000, UoM: KG
 Actual Quantity: 0.000

Items	Coproducs	Scrap	WIP Items	Operations	Others	Documents	Sales Orders	Attachments
Total	Planned: 10.000	Actual: 0.000	UoM: KG	Scheduling Method: Forward	Priority: 1	Calculated: 9:00:00	Parent Document:	
Quantity	10.000	0.000	KG					
Rework		0.000	KG					
Factor	1.000							

Batch Number:

Distribution Rule: 01; 02
 Project:
 Batch Size: 1.000
 Price: 23.57

Remarks:

Journal Remarks: Close Date:

Buttons: Add, Cancel

Pick Issues

- Based on the Manufacturing Order, the dimensions are copied into the Pick Issue Document

The screenshot shows the SAP Pick Order window. The header includes Number 486, Series Primary, and Date 11.12.13. The main table lists items with their planned and issued quantities. The 'Distribution Rule Code' column is circled in red, showing the value '01'.

#	Document Type	Item Number	Description	Planned Quantity	Issued Quantity	Picked Quantity	UoM	Warehouse ...	Source Wareho...	Bin L...	Distribution Rule Code	Distribution Rule Name	Project	Acc...
1	Goods Issue	Active-Item-03	Active-Item-03	2.500	0.000	0.000	KG	100,180,184	01	0	01	01	Cape01	1310
2	Goods Issue	Active-Item-04	Active-Item-04	2.500	0.000	0.000	KG	73,720,777	01	0	01	01	Cape01	1310
3	Goods Issue	Mayonnaise 245g	Mayonnaise 245g	10.000	0.000	0.000	EA	6,000,000	01	0	01	01	Cape01	1310
4				0.000	0.000	0.000		0.000						

Goods Issues

- Based on the Pick Issue, the dimensions are copied into the SAP Business One Goods Issue Document

The screenshot shows the SAP Goods Issue window. The header includes Number 707, Series Primary, Posting Date 11.12.13, and Document Date 11.12.13. The main table lists items with their quantities and bin locations. The 'Dimension 1' column is circled in red, showing the value '01'.

#	Item No.	Item Description	Quantity	Bin Location ...	Account ...	Item Cost	UoM Name	UoM Code	Dimension 1	Dimension 2	Dimension 3	D...
1	Active-Item-03	Active-Item-03	2.5	2.5	131000	GBP 1.000	KG	Manual	01			
2	Active-Item-04	Active-Item-04	2.5	2.5	131000	GBP 1.000	KG	Manual	01			

Pick Receipt

- Based on the Manufacturing Order header, the dimensions are copied into the Pick Receipt

The screenshot shows the SAP Pick Receipt window. The header includes Number 490, Series Primary, and Document Date 11.12.13. The main table lists items with their planned and received quantities. The 'Distribution Rule Code' column is circled in red, showing the value '01'.

#	Document Type	Item Number	Description	Planned Quantity	Received Quantity	Quantity	UoM	Destination W...	Bin Location All...	Receipt Price	Classif...	Distribution Rule C...	Distribution Rule Name	Project	Account C...
1	Goods Receipt	Recipe-02	Recipe-02	10.000	0.000	0.000	KG	01	0	6,921	0,000	01	01	Cape01	131000
2				0.000	0.000	0.000				0,000					

Goods Receipt

- Based on the Pick Receipt, the dimensions are copied into the SAP Business One Goods Receipt

The screenshot shows the SAP Business One 'Goods Receipt' window. At the top, there are fields for 'Number' (439), 'Series' (Primary), 'Posting Date' (11.12.13), 'Document Date' (11.12.13), and 'Ref. 2'. Below this is a 'Price List' dropdown set to 'Last Calculated Price'. The main area contains a table with two tabs: 'Contents' and 'Attachments'. The 'Contents' tab is active, showing a table with the following data:

#	Item No.	Item Description	Quantity	Unit Price	Total	Bin L...	Account ...	Item Cost	UoM Name	UoM Code	Dimension 1	Dimension 2
1	Recipe-02	Recipe-02	10	GBP 6.921	GBP 69.210	10	131000	GBP 4.121	KG	Manual	01	

Below the table, there is a summary row showing 'GBP 69.210'. At the bottom of the window, there are 'Remarks' and 'Journal Remark' fields. The 'Journal Remark' field contains 'Goods Receipt'. There are 'OK' and 'Cancel' buttons at the very bottom.

1.8.3 Resources - Distribution and Cost Dimensions

- On the Resource form, Accounting tab, Cost Centers and Projects can be selected
- According to how many Cost Centers are enabled within SAP Business One General Settings one or more dimensions fields are displayed
- Note the Resource Accounting combo-box, has been moved to this tab.

On this page:

- [Operation form](#)
- [Routing form](#)
- [Production Process form](#)
- [Manufacturing Order form](#)
- [Time Bookings form](#)
- [Time Corrections form](#)
- [Postings](#)

The screenshot shows the SAP Resource form in the Accounting tab, with the Details sub-tab selected. The form is titled "Resource" and contains the following fields and sections:

- Code:** 20 (Tool)
- Description:** Labour
- Group:** Labour
- Number of Resources:** 1
- Cycles:** 1
- Cycle Capacity:** 1.000
- Active/Inactive:** Active (selected)
- Queue Time:** 0.000 Fixed minutes
- Setup Time:** 0.000 Fixed minutes
- Run Time:** 0.000 Fixed minutes
- Stock Time:** 0.000 Fixed minutes
- Resource Calendar:** 20

The **Details** sub-tab is highlighted with a red circle. It contains the following sections:

- Resource Accounting:** No Posting (dropdown)
- Relevant for Cost Accounting:** (checkbox)
- Project:** (input field)
- Distribution Rule:** (checkbox)
- Dimension 1-5:** (input fields)
- Issue Whs Code:** 01
- Receipt Whs Code:** 01
- Info:** (button)

At the bottom, there is a **Remarks** text area and **OK** / **Cancel** buttons.

Operation form

- On the Operation form in Resources tab the Cost Centers and Project are displayed for each resource
- Values are defaulting from the Resource form and can be changed if required

Operation

Code: 01
Name: Mix & Pack

Properties Resources Resources Properties

#	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Rema...
1	01 Cage	02					
2							

Remarks

OK Cancel

Routing form

- On the Routing form in Resources tab the Cost Centers and Project are displayed for each resource
- Values are defaulting from the Operation form and can be changed if required
- When the operation is selected the default values are copied from the Operation definition, and can be changed if required
- When the resource is selected the default values are copied from the Resource definition, and can be changed if required

Routing

Routing Code: 01
Routing Name: Integrated Process Active

Operations Resources

Operation: (10) 01

Run Rate	Stock Rate	Has Cycles	Cycle Capacity	Remarks	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
Minutes per pi	Fixed minutes	<input type="checkbox"/>	1,000		01 Cage	02				
Fixed minutes	Fixed minutes	<input type="checkbox"/>	0,000							

Property Code	Property Name	Condition Type	UoM	Condition Value	Condition Value To

Remarks

Update Cancel

Production Process form

- On the Production Process form in Resource section the cost centers and projects are displayed
- When the routing is selected the default values are copied from the Routing definition, and can be changed if required
- When the operation is selected the default values are copied from the Operation definition, and can be changed if required
- When the resource is selected the default values are copied from the Resource definition, and can be changed if required

Production Process

Item Number: Recipe-02
 Description: Recipe-02
 Revision: default

Routing: 02 Operation Bind: 01

#	Routing Code	Routing Name	Default	Roll-up Default	Remarks
1	02	Mixing Process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	01	Integrated Process	<input type="checkbox"/>	<input type="checkbox"/>	
3			<input type="checkbox"/>	<input type="checkbox"/>	

Operation Sequence	Operation Code	Operation Name	Operation Overlay Sequence	Operation Overlay Code	Overlay Quantity	Remarks
10	01	Mix & Pack			0.00	
0					0.00	

Run Time	Run Rate	Stock Time	Setup Rate	Remarks	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
1.000	Minutes per piece	0.000	Fixed Minutes		01 Cage	02				
0.000	Fixed Minutes	0.000	Fixed Minutes							

Update Cancel

Manufacturing Order form

- On Manufacturing Order form, Operations tab in Resource section the cost centers and resources are displayed
- According to the routing definition for the Bill of Material which was used to create the Manufacturing Order the default values are copied, and can be changed if required
- When an operation is selected and added to the Manufacturing Order, the default values are copied, and can be changed if required
- When a resource is selected and added to the Manufacturing Order, the default values are copied, and can be changed if required

The screenshot displays the 'Manufacturing Order' form. The top section contains fields for Item Code (Recipe-02), Item Name (Recipe-02), Revision (default), Warehouse (01), Planned Quantity (1.000), and Actual Quantity (0.000). The Type is set to 'Internal', Series to 'Primary', and Status to 'Released'. The Routing is '02', with Required Date (24.04.15), Planned Start Date (24.04.15 10:02), and Planned End Date (24.04.15 12:04).

The 'Operations' tab is selected, showing a table of operations:

#	Sequence	Operation Code	Operation Name	Operation Status	Operation Overlay Sequence	Operation Overlay Code	Oper...
1	10	04	Prep	Not Started			
2	20	03	Mixing	Started			
3	0			Not Started			

Below the operations table is the 'Resource Properties' section, which includes a table for resource details:

icounts	Active	Base Resource Line	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Remarks
1:01:00	Y	0	01 Cage	02					
	Y	0							

At the bottom of the form, there are fields for 'Remarks', 'Journal Remarks', and 'Close Date', along with 'Update' and 'Cancel' buttons.

Time Bookings form

- On Time Bookings form the cost centers and resources are displayed
- According to Manufacturing Order definition the default values are copied, and can be changed if required

#	Cost	Variable Cost	Recorded Qty	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
1		0.00	1.000	01 Cage	02				
2		0.00	1.000						
3		0.00	0.000						
4		0.00	1.000						
5		0.00	0.000						

Time Corrections form

- On Time Corrections form the cost centers and resources are displayed
- According to Time Booking record the default values are copied, and can be changed if required

#	Cost	Variable Cost	Recorded Qty	Project	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
1		0.00	1.000	01 Cage	02				
2		0.00	1.000						
3		0.00	0.000						
4		0.00	1.000						

Postings

- When Time Booking or Time Correction document is saved we use set there Cost Centers and Project in created Journal Entry document
- Each cost center dimension from Time Bookings is saved in its respective counterpart in Journal Entry
- Cost centers are only saved for Sales and Expenditure type accounts
- Project is saved for every type account

The screenshot shows the SAP 'Chart of Accounts' window. On the left, the 'G/L Account Details' section is active, showing the account '500110' with the name 'Component Materials - scrapped'. The 'Account Type' dropdown menu is open, with 'Expenditure' selected and circled in red. Other options include 'Sales' and 'Other'. Below this, there are checkboxes for 'Confidential', 'Project', and 'Relevant for Cost Accounting' (Project, Dimension 1-5). The 'Balance' is shown as 0.00 GBP. On the right, a list of 'Cost of Sales' accounts is displayed, including '500002 - Materials Expense' and '506000 - Labour Expense'. A vertical navigation bar on the far right contains buttons for 'Assets', 'Liabilities', 'Capital and Reserves', 'Turnover', 'Cost of Sales', 'Operating Costs', 'Non-Operating Income and Expenditure', and 'Taxation and Extraordinary Items'.

1.9 Faster Costing Calculation and Restoration Engine

Faster Costing is a new option that accelerates Costing calculations significantly.

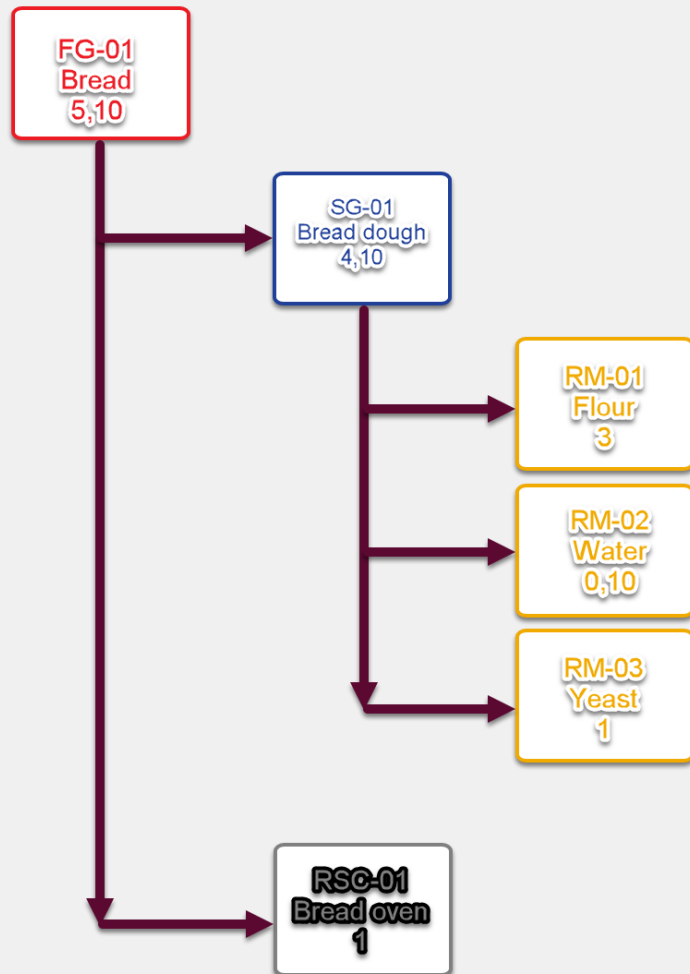
It is required to set up Direct Data Access connection to a database to use the option.

On this page

- [General](#)
- [Standard Costing](#)
 - [How does it work?](#)
- [Faster Costing Calculation and Restoration Engine](#)
 - [How does it work?](#)
 - [How to activate it?](#)
 - [What the activation changes?](#)

1.9.1 General

Example



1.9.2 Standard Costing

How does it work?

1. Loading Item Costing UDO data for RM-01,
Calculating actual cost of RM-01,
Saving changes in Item Costing UDO for RM-01.
2. Loading Item Costing UDO data for RM-02,
Calculating actual cost of RM-03,
Saving changes in Item Costing UDO for RM-02.
3. Loading Item Costing UDO data for RM-03,
Calculating actual cost of RM-03,
Saving changes in Item Costing UDO for RM-03.
4. Loading Resource Costing UDO data for RSC-01,
Calculating actual cost of RSC-01,
Saving changes in Resource Costing UDO for RSC-01.
5. Loading Item Costing UDO data for SG-01,
Loading Item Costing UDO data for RM-01,
Loading Item Costing UDO data for RM-02,
Loading Item Costing UDO data for RM-03,
Calculating actual cost of SG-01 based on RM-01, RM-02 i RM-03,
Saving changes in Item Costing UDO for SG-01.
6. Loading Item Costing UDO data for FG-01,
Loading Item Costing UDO data for SG-01,
Loading Resource Costing UDO data for RSC-01,
Calculating actual cost of FG-01 based on SG-01 i RSC-01,
Saving changes in Item Costing UDO for FG-01.

Loading, calculating and saving data was taking quite a lot of time in some cases.

In the latest ProcessForce version a new costing mechanism has been implemented. It changes the whole procedure significantly.

1.9.3 Faster Costing Calculation and Restoration Engine

How does it work?

1. The following data are being loaded to RAM memory:
 - Items
 - Revisions
 - Bill of Materials (header, Raw Materials, Coproducts, Scraps, Technology)
 - Routings
 - Operations
 - Resources
 - Item Costing
 - Resource Costing
2. A dynamic multidimensional data cube based on the data from the previous point.
3. Cost Roll-Up on the cube.
4. Cost Cube data are being saved in the database (in 10000 records batches) using SqlBulkCopy or HanaBulkCopy classes.

The overall time of Cost Roll-Up is significantly shorter thanks to reorganization of data reading, update and saving.

How to activate it?

To activate the option check the checkbox in General Settings > ProcessForce tab > Costing tab > Enable faster costing calculation and restoration engine:

The screenshot shows the 'General Settings' dialog box in SAP. The 'ProcessForce' tab is selected at the top. Within this tab, the 'Costing' sub-tab is active. A red circle highlights the 'ProcessForce' tab, and another red circle highlights the 'Costing' sub-tab. In the 'Costing' sub-tab, the checkbox 'Enable faster costing calculation and restoration engine' is checked and highlighted with a red circle. Other options like 'Post Resources Confirmation', 'Post Variance on Manufacturing Order Closure', and 'Enable Resource Costing editing for the 000 cost category' are unchecked. There are also dropdown menus for 'Receipt Evaluation Type', 'Coproduct Evaluation Type', 'Scrap Evaluation Type', and 'Issue Info Price List'. The 'OK' and 'Cancel' buttons are at the bottom.

Unchecking the checkbox causes Costing calculations to be performed in accordance to Standard Costing.

What the activation changes?

- ProcessForce Cost Roll-Up procedure is based on new Faster Costing Calculation and Restoration Engine significantly speeding up the whole procedure
- Two new options are available on Cost Roll-Up form: Coproducts cost calculation, Scrap cost calculation
- A new form available: Cost Comparison. It is available from Bill of Materials context menu. It allows to compare costs of production of a specific Bill of Materials with different batch size
- Update Costing button on Item Costing works based on Dynamic Costing
- Costed Bill of Materials calculations are based on Dynamic Costing
- Changing Batch size on Costed Bill of Materials affects updated costs on all of the structure level (in Standard Costing: just on Resource, Operation and Routing level). New costs for a specific batch size will be displayed on the form
- A new option on Costed Bill of Materials: Bill of Materials cost calculation based on actual Raw Materials costs in SAP Business One system. If the option is disabled, cost are being calculated based on Costing Details configuration of Raw Materials (Item Costing form).

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