

Beas Tutorials



Beas Manufacturing

Beas Manufacturing is the global solution for small to mid-sized discrete and process manufacturing businesses. Offering functionality from the planning phase through to control, implementation and fulfilment, Beas Manufacturing ensures efficiency and flexibility for manufactures.

Table of Contents

	-
Using cost elements example	6
Setting up cost elements	9
Setting up a cost element group	.9
Setting up cost elements	.9
Connecting cost elements to the resource and operation	11
Connecting cost elements to tools	12
Adding a cost element to calculation schema	14
Configuration Wizard	8
WIP inventory account	18

1 Cost elements

In manufacturing different costs need to be posted during the production process: material costs, external operation cost, non-material manufacturing cost, tool procurement and maintenance, quality control, surcharges and so on.

Extended cost evaluation provides the option to split these costs into different cost elements, with the required granularity, and post the costs into different accounts according to the configuration.

Cost elements have the function of holding values for further accounting in Beas. Beas cost elements can be set up in different ways:

- Accounts can be defined for each cost element. The values in this case are booked at the time, when the time receipt is created and can be different, for example for each time type. The calculation schema accounts are not set, or a calculation schema is not set up.
- Accounts can be set up in the cost element and the cost element can be included in the calculation schema.
- A cost element can be connected to a calculation schema and the account can be set up in the calculation schema. This results in the journal entry not being created, when the time receipt is posted.

In this tutorial we are looking at the setup of cost elements and how they can be connected to the production process.

1.1 Using cost elements example

In this example, a cost group called *Production* is set up that contains cost elements for labor, production and setup.

Cost Element Group		
Group		Description
1	Standard	
Production	Production cost elements	
Projekt	Projekt	
qc_pc	QC PostCalculation Group	
sdfsdf	fghfghf	
STANDARD	STANDARD Group	
test	test2	

Co	st Element Group I	Production		_	
	Cost Element Groups	Cost Elements			
#	Cost Element	Beschriebung		1arginal Cost %	Full Co
1	Labor_c	Labor cost			
2	Production_c	Production cost			
3	Setup_c	Setup cost			
	c				>
	Edit	End <u>N</u> ew	Delete		5

If we look into the details of the *Production_c* cost element, by clicking **Edit**, the account to be credited is defined for the cost element.

ost Element Production_	c		
Cost Element		Production_c	
Description		Production cost	
Group		Production	
At time receipt direct bookin Account Marginal Cost	g on ×		-
Account Fix costs	×		-
Account Full Cost	×	15200001-01-001-01 Machine-Costs (HO, USA, GA)	-
WIP Inventory Account	×		-
		(if empty, then WIP of assembly)	

The cost elements are connected to the resource in its master data and the operation. In the resource, it is defined that we want to use the *Production_c* cost element for posting the resource cost. The *Value labor cost separately* checkbox is marked in the resource, so the labor rate can be defined.

Resource Master Data R-0	01-1T.STD.08H	_	_		
Resource	R-01-1T.STD.08H		Group	⇒std	•
Description	Standard Resource /	1 Machine / 1 Time Ty	pe / 08 Hours Capac	ity	
General Scheduling	Cost Cost D	Petails Attachment	s Documents	Expendable material	Extended
Interruption Mainter	nance orders				
Time types	Marginal Cost Rate	Full Cost Rate	📫 Co	ost Element (Default)	
Cost Rate	14	4.00	26.00 Produc	ction_c 💌	
Labor cost rate	0	0.00	3.50 Labor_	c 🔻	
	Cost in EUR per Min	iute			
Cost Status		 Expand t 	o cost elements	⇒_ <u>1</u>	•
Cost Center		 Value lab 	or costs separatly		
Cost Rate Cost Ele	ements Update	Dispatches			

On the operation, the labor cost element must be included, so it is used for the posting.

Operation se	quence	30			Desc	ription	Ċ.		Instructions	5
Туре		operation	-	8	Inter	rnal Operat	ion STND001 -	Standard (defaul	Resource only)- Setup fo
Operation	-	OP-IN.STD.001	-	8						
Resource	-	R-01-1T.STD.08H	-	3						
Active		\checkmark								
Clock Manda	tory?	Closed								
General	Scheduling	Extended To	ol	Utiliti	es	Parallel	Alternative	Attachments		
		Time	Cost E	lemen	t	Use facto	r		1.0000	
Setup time Pre	calculation	0.000				Work Ste	ps		1.0000	
Setting up Cap	pacity	5.000				Idle time				Hr.
Processing		25.000	Productio	n_c	-	Overlap l	imit		None 🔻	Hr.
						Scrap fac	tor			
						QC inspe	ction plan	⇒	-	3
labor costs or	n cost type		Labor_c		-					
Quantity per T	Time	100.0000				1				
Time Unit		Minute 💌								
Resource alloc	ation	-								

On time receipt posting, the cost elements are used, and the journal entries reflect the accounts set up in the cost elements.

÷	30	R-01-1	T.STD.08H	Internal Operation STND001 -	Standard (default Resource01.04.19	01.04.19	7.500	10.000	Min.
TÉC) 25	Test Use	r	01.04.19			1.00Pcs	10.000	Min.
		Docum	ent 4243: New Time Receipt	Pos. 10/30 (4/1/2019)			295.00	295.00	
	<u>_</u> ¢	568	37 4/1/2019 Timereceipt						
			152000010100101	Full Cost Machine	-Costs (HO, USA, GA)			260.00	
			132000000100101	Full Cost Inventor	y - Work In Progress (HO, USA, GA)	260.00		_
			612500000100101	labor costs Fix Pa	yroll Expense - Other Abences (HO,	USA, GA)		35.00	
			132000000100101	labor costs Fix In	ventory - Work In Progress (HO, US/	A, GA)	35.00		

1.2 Setting up cost elements

Cost elements can be created in **Administration > Setup > Production > Cost Elements**.

1.2.1 Setting up a cost element group

Administration > Setup > Production > Cost Elements

Create a cost elements group (with code and description) and add the cost elements in the Cost elements tab of the group.

Cost Element Group		_ 🗆 🗙
Cost Element Groups	Cost Elements	
Group		
Description		
Add Cancel	Dejete	53

Group: Name of the group.

Description: Short description of the group.

1.2.2 Setting up cost elements

Administration > Setup > Production > Cost Elements

Use the **New** button on the cost elements tab to add a new element.

Cost Element		
Description		
Group	Production	
At time receipt direct bookin	1 on	
Account Marginal Cost		
Account Marginal Cost		
Account Full Cost		· · ·
WID Inventory Account		•
The Inventory Account	(if empty, then WIP of assembly)	•
Surcharge on		
Marginal Cost %		
Marginal Cost % Full Cost %		
Marginal Cost % Full Cost % Surcharge at time receipt po	t immediately to	
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost	t immediately to	▼
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost Account Fix costs	t immediately to	▼
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost Account Fix costs Account Full Cost	t immediately to	▼ ▼ ▼
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost Account Fix costs Account Full Cost Labor costs	t immediately to	▼
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost Account Fix costs Account Full Cost Labor costs Account Marginal Cost	t immediately to	✓
Marginal Cost % Full Cost % Surcharge at time receipt po Account Marginal Cost Account Fix costs Account Full Cost Labor costs Account Marginal Cost Account Fix costs	t immediately to	 ▼

Cost element: Unique id of the cost element.

Description: Description of the cost element.

Group: The cost group, that the cost element belongs to.

The account values should only be used, if the account can be credited, when the time receipt is recorded. You can either specify the marginal and fixed cost accounts or the full cost account.

At time receipt direct booking on

Account marginal cost: Account to be credited with marginal cost.

Account fix cost: Account to be credited with fixed cost.

Account full cost: Account to be credit with full cost.

WIP Inventory account: If the amount is not posted to the WIP inventory account of the assembly, another account can be used. This option can only be used if it is configured in the

Configuration Wizard. See WIP inventory account.

Surcharge on

Surcharges can be identified separately in the pre-calculation and costing analysis. The surcharges can be posted directly, like normal costs. Define the rate and accounts for surcharge. Marginal cost %: Surcharge on the marginal cost rate.

Full cost %: Surcharge on the marginal cost rate.

Labor cost

Define the account for the labor cost. The labor cost element should be used in the operation.

1.2.3 Connecting cost elements to the resource and operation

Resource > Resource Master Data

Go to the resource and add the specific cost element to the resource.

- 1. In **Resource > Resource Master Data** choose the item and click the **Edit** button.
- 2. Go to the **Cost** tab and select the cost element form the drop-down list.

Resource Maste	r Data R-01-	1T.STD.08H					
Resource Description		R-01-1T.STE Standard Re	0.08H source / 1 Mach	iine / 1 Time Type /	Group 08 Hours Capac	<mark>⇔</mark> STD ity	•
General So	cheduling (Cost	Cost Details	Attachments	Documents	Expendable material	Extended
Interruption	Maintenan	ice orders					
Time types		Marginal C	ost Rate	Full Cost Rate	📫 Co	st Element (Default)	
Cost Rate			14.00	2	6.00 Produc	tion_c 💌	
Labor cost rate			0.00		3.50 Labor_o		
		Cost in EU	R per Minute				_
Cost Status			-	Expand to co	st elements		•
Cost Center			•	Value labor o	osts separatly		
Cost Rate	Cost Eleme	ents Update					
<u>о</u> к	Cancel	Refer	ence Dis	patches			5

If you need the labor to be valued as a separate entry, use the checkbox and add the required cost element. If this option is active, the personnel cost fields (marginal costs / full costs) are displayed respectively. In case the cost element for labor is to be used on the operation, set the cost element to be used.

Operation se	quence	30				Desc	ription	Ċ			Instructions	
Туре	=	operation			- 3	Inte	rnal Operat	ion STND00	1 - Sta	andard (default	Resource only)	- Setup fo
Operation	=	OP-IN.STD.	001		- 3							
Resource	=	R-01-1T.STD	.08H		- 3							
Active		\checkmark										
Clock Manda	atory?	Closed										
General	Scheduling	Extended	Too	bl	Utiliti	es	Parallel	Alternative	e	Attachments	1	
			Time	Cost	Elemen	t	Use facto	r	_		1.0000	
Setup time Pre	calculation		0.000				Work Ste	ps			1.0000	
Setting up Caj	pacity		5.000				Idle time					Hr.
Processing		2	5.000	Product	ion_c	-	Overlap I	imit			None 🔻	Hr.
							Scrap fac	tor				
							QC inspe	ction plan	-		-	3
Labor costs or	n cost type			Labor_c		Ŧ						
Quantity per 1	Time	100	.0000				1					
Time Unit		Minute	-									
Resource alloc	ation		-									

1.2.4 Connecting cost elements to tools

Administration > Setup > Inventory > Tool Administration

Tools can be assigned to operations and they have an associated cost. Therefore, tools can also be assigned cost elements.

1. Go to Administration > Setup > Inventory > Tool Administration, select the tool and click the Edit button.

2. A cost element can be set for deprecation of the tool and for the maintenance of the tool. Deprecation cost is calculated. *Cost element for buy* = the *Purchase Price /* by *Tool life* (in units or hours).

Tool Administration				_ 🗆 ×
Tool Description	t55 Tyj Test Tool Choose1	pe Tool		
Active	Block availablility	То		
General Scheduling	Graphic Cost	Bill of Materials Interruption	Maintenance orders	Attachments
Date of Purchase	08.01.07	Product life in units	1,000,000	
Supplier Manufacturer Purchased Price	10,000,00	Maintenance Costs	3.00 Per Uol	10
Cost element for buy Cost input in	Procurement_cost Quantity]		
		Cost Element for Maintenance	Maintenance_cost 🔹 🔻	
Remark Variation o	ost			
Update C <u>a</u> r	ncel Delete <u>R</u> efer	ence		5

- 3. The tool is assigned to an operation and is activated. Go to the operation Tools tab and click the **New** button to add a tool.
- 4. In the Cost tab of the new screen add the required cost elements.

operation sequence 1229/	10/10 Tool				
Position 1 Tool 🔶 t Description T	0 55 Test Tool Choose1	▼.]	
General Cost	Default Time				
Acquisition cost	10,000.00				
Cost input in	Piece 💌				
Product life in units	1,000,000				
Cost Element	Maintenance_cost 💌	Surcharge MargCosts %	0.000	Surcharge Full Costs %	0.000
Maintenance costs	3.00	Per	10.000		
Cost Element	Procurement_cost 💌	Surcharge MargCosts %	0.000	Surcharge Full Costs %	0.000
<u>OK</u> C <u>a</u> nce	l Delete				53

5. Activate the tool for the operation in the operation Tools tab.

operation sequence 12	9/10/10					_
Operation sequence	10		De	escription		
Туре	> operation		🔳 In	ternal Operat	tion STND001 - S	tandard (defa
Operation 0	OP-IN.STD.	001	3			
Resource	R-01-1T.STD	R-01-1T.STD.08H 🗨 🔳				
Active						
Clock Mandatory?	Closed	Closed 🗸				
General Scheduling	Extended	Tool	Utilities	Parallel	Alternative	Attachment
Pos Tool Ac	ive	Descri	ption		Defines lead	time Setu
10 t55	est Tool Ch	oose1				
<						
Edit New	Delete	Tool activate]			
<u>O</u> K Ca	ncel <u>N</u> e	w Delete	t	ime receipt		

6. Add the cost element to a calculation schema, as described in <u>Adding a cost element to</u> <u>calculation schema</u>.

1.2.5 Adding a cost element to calculation schema

Administration > Setup > Precalculation > Calculation schema

Cost elements can be used in a calculation schema. This is an example of connecting a cost element to a calculation schema and using it in an operation.

1. Create a cost element, that has no accounts set. This means that the journal entry is not created, when the time receipt is posted.

Cost Element Production		_	
Cost Element	Quality_Control		^
Description	Quality control costs		
Group	Production		
At time receipt direct booking on			
A second Massivel Cost			
Account Marginal Cost X		•	
Account Hix costs X		•	
Account Full Cost X		•	
WIP Inventory Account X	(if empty, then WIP of assembly)	•	
Marginal Cost % Full Cost % Surcharge at time receipt post imme Account Marginal Cost	diately to	-	
Account Fix costs	c	-	
Account Full Cost	c	-	
Labor costs			
Account Marginal Cost	<	-	
Account Fix costs	c	-	
Account Full Cost	(-	
			~
OK Cancel	Delete		5

- 2. Go to the calculation schema and click on the **Edit** button.
- 3. Go to the **Overhead Cost** tab and click the **New** button to add a new element.
- 4. In the **Reference** field, select *Cost element*.

Calculation objects Edit Tut	_schema_2	X
Description	8	~
Color	10785280 V Default	
Picture	bmp\cent.png 🗸 🗸	
Type	Surcharge	
1794	Sarenarge	
Surcharge to	Automatic 💌	
Reference	none 🔻	
	none	
	Material surcharge	
	Material laut BOM	
Percentage surcharge	L+M costs (work sequence)	
Refers to result	Cost of external operation	
Surcharge per Lot Size	Cost Element	
Surcharge per Unit	Cost Element surcharge	
Percent depends on	Kostenartgruppe	
Marginal costs to fixed costs	Kostenartgruppe surcharge	
Save Value As		
Booking on Account		
Marginal Cost	×	
Fix costs	×	
Full Cost	×	
То	Accumulated costs (standard) 💌	
WIP Inventory Account	×	
	(if empty, then WIP of assembly)	
Valuation in Precalculation	Post calculation	
Add C <u>a</u> ncel	Delete	Ň
		1.1

5. In the **Cost element** field, select the required cost element and set the account to be used in the schema.

Calculation objects Edit T	Fut_schema_2	
Description	୍ଡ <mark>୦</mark> ୦	^
Color	10785280 🔻 Default	-
Picture	bmp\cent.png	-
Туре	Surcharge	-
Surcharge to	Automatic	-
Reference	Cost Element	-
Cost Element	Quality_Control	-
Save Value As		-
Booking on Account		
Marginal Cost	×	3
Fix costs	×	Э
Full Cost	× 63900000-01-001-01 Other Administrative (HO, USA	3
		<u> </u>
То	Accumulated costs (standard)	-
To WIP Inventory Account	Accumulated costs (standard)	
To WIP Inventory Account	Accumulated costs (standard)	•
To WIP Inventory Account Valuation in Precalculation	Accumulated costs (standard)	-
To WIP Inventory Account Valuation in Precalculation	Accumulated costs (standard)	

6. Connect the schema to the work order by opening the work order Extended tab and using the *Schema* field.

Assembly B	ll of N	1aterials	Rou	ting	Calculation						
Position		10	Barcos	de	001229010	Start Struc	ture 02.0	4.19	Ŧ		
tem	-	FP_S				Start date			-		
-Version	-					Start Time	02.0	4.19 01:59			
escription		Finished Pr	roduct / Norn	nal / Mak	e to Stock	End	02.0	4.19 15:00			
ariant		Α				Deliv.Date	02.0	4.19	-		
Configuration	=					Status			-	Ð	
ty. to produce			1	00.00 P	cs	Cut-Off Q	uantity		0.00		
Narehouse	=	01		•	Account	WIA Variance		13200000-01-00 52500000-01-00	01-01 Ir 01-01 V	nventory - Work In Progress (HO, USA, GA) VIP Material Variances (HO, USA, GA)	• •
Branch					Standard	l price valuation	1 <mark>-</mark>	>			
Batch					Always	oreakdown sub	assemblies				
QC Inspection pla	n 📫	>		-							
5chema	=	Tut_schem	ia_2	•							
5ales Price											

7. Connect the cost element to the operation by opening the operation and choosing the cost element in the drop-down field.

operation se	equence 122	/10/30								
Operation se	equence	30		Desc	cription	<u>ò</u>	I	instructions		
Туре	=	operation	- (Inte	rnal Operat	tion With QC - St	andard (default F	Resource only)	- Setup for	
Operation	4	OP-IN.STD.QC	c 🔻 🤅	0						
Resource		R-01-1T.STD.2	4H 🔻 🧐	Ð						
Active		\checkmark								
Clock Manda	atory?	Closed								
General	Scheduling	Extended	Tool Ut	ilities	Parallel	Alternative	Attachments	1		
		Tì	me Cost Elem	ent	Use facto	r		1.0000		
Setup time Pr	ecalculation	0.0	000		Work Ste	9D5		1.0000		
Setting up Ca	pacity	5.0	000		Idle time				Hr.	
Processing		25.0	000 Quality Cont	rol 🔻	Overlap I	imit		None 🔻	Hr.	
					Scrap fac	tor				
					QC inspe	ction plan 🛛 📫	QC_OPER_UNI	T 🔻	(3)	
	Time	100.00	000							
Juantity per		Minuto	•							
Fime Unit										

Since the account is set up in the calculation schema and not in the cost element, the journal entry is not created, when the time receipt is posted.

1.3 Configuration Wizard

1.3.1 WIP inventory account

Administration > Configuration Wizard > Production > Valuation and Posting of Assembly > Account setting > Use for component transactions

-		Production						
1	Þ	Master Data						
je –	Create							
je –	Display							
je –	⊳	FDC						
je –	⊳	Material posting						
je –	▼	Valuation and booking of assembly						
je –		Valuation						
ja 👘	Account setting							
ja 👘		Define WiP account	Start					
10		Use for components transaction Co	mponents-WIP-Account					
		Components WIP accounts: The WIP account of the material is in use. Higher WIP accounts: The WIP account of the assembly is used. Through	. It is possible that different accounts WIP accounts are used. ugh this the WIP account of the assembly is loaded.					

Determines the WIP account to which the material positions should be posted:

WIP accounts for components: For material posting, the value is posted to the WIP account of the material.

WIP accounts for superordinate items: For material posting, the value is posted to the WIP account of the assembly.