RELEASE NOTES





FACTON EPC 12.0 SC

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FACTON GmbH Konrad-Zuse-Ring 12b 14469 Potsdam, Germany

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Support Requests:

via support(at)facton.com via +49 1805-FACTON

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1. FACTON EPC 12.0 SC

The version FACTON EPC 12.0 SC is a major release.

1.1 SYSTEM REQUIREMENTS

see Technical Factsheet (Platform 12.0)

1.2 INSTALLATION AND COMPATIBILITY

FACTON EPC 12.0 SC requires the EPC Platform version 12.0.2 and EPC SC 11.0 as basis for existing customers.

1.3 UPDATE REQUIREMENTS

	No relevant adjustments required
Х	Migration steps required, see Migration from version 11.0 to 12.0



1.4 FUNCTIONAL ENHANCEMENTS

1.4.1 Calculation

Cost elements for tools and fixtures

As of version 12 it is possible to determine the acquisition costs for tools and fixtures by using further cost elements. Thus, you can consider the costs of tools and fixtures within a calculation in a more detailed way.

Material quantity calculation

The material quantity calculation for the geometric form types Coil and Sheet was simplified. For the quantity calculation of coils and sheets it is now possible to have the output quantity determined. Further, both form types support the use of a material utilization degree.

When calculating casted materials, you can now consider loss due to cleaning procedures.

Manufacturing overhead costs

You can now choose the base for calculating manufacturing overhead costs (either labor cost or direct manufacturing cost), provided that you are working with company-own data (as Data Origin) in your calculation.

If you are working with Benchmark data, this selection is not available.

Work Steps

The work steps now support the display of parallel and sequential work step procedures in the calculation.

1.4.2 Cost Models

Connectivity of Cost Model Designer and Should Costing Solution

You can define cost models in the FACTON Cost Model Designer and then integrate these models in the Should Costing Solution where users can work with them.

Despite assemblies and manufacturing processes, version 12 also supports parts and work steps as active calculation elements. Furthermore, all calculation elements (except Grouping) can be selected as passive elements of a calculation.

2-Component Injection Molding cost model

The 2-component injection molding cost model can be used at processes. This cost model was created with the Cost Model Designer version 12 and represents the many options you have with the CMD. Customers who already own a Cost Model Designer license can adjust this cost model to their specific needs.

1.4.3 Usability

Improved clarity for view schemes

You can now use icons to switch between view schemes. The user can toggle a certain view schema by clicking on comboboxes or icons.



Quick estimation

When quickly estimating, each calculation element can be estimated by using two values. A detailed cost estimation is still available for every element, if required.

Improved clarity for machine rate calculation

For the machine rate calculation, only those fields are displayed that are relevant to the allocation method. This way, all unnecessary properties are not visible anymore.

Calculation queries

When searching for calculations, you can now choose between two predefined queries whose results are ordered by label or modification date of the calculations.

Reports

The Bill of Material Report now shows all data relevant for the selected calculation element and its sub-elements. Thus, it is possible to create BoM Reports for individual elements of a calculation.

Edit Benchmark machines

The machine properties of Benchmark data machines can now be overridden to support a quick adjustment of comparison data in the calculation.



1.5 MIGRATION STEPS FROM VERSION 11.0 TO 12.0

Requirements before the manual migration:

- A backup of your database should be created.
- The configuration has been updated from version 11.0 to version 12.0.
- The global properties have been synchronized according to the configuration update to version 12.0 (details on updating master data can be found in our <u>Online Help</u>)



WARNING

Before proceeding with the migration, please review **all steps** in advance, as some properties may need to be saved or noted.

1.5.1 Migration of work steps (master data)

In order to achieve compatibility of the SC with the CMD (Cost Model Designer), the signature of work steps had to be replaced. The old work step resources must therefore be exchanged by new so-called "weak" resources:

🛟 Work Step 👻

🗱 Work Step (Outdated) 🗸



Requirements

You need to have the role "SC Master Data Administrator" or "SC System Administrator".

1 In the "Master Data" workspace, execute the Explorer query "SC Outdated Resources | Company Own Content | Work Steps":



 Company Own Content Work Steps



2 For each outdated work step listed in the result, create a new resource of type "Work Step (Cycle)".



- 3 Transfer (copy) all property values from the outdated work step resource to its new resource.
- 4 Save and publish your changes.

1.5.2 Migration of local resources (calculations)

In order to make the SC compatible with the CMD, various resources had to be restructured. Please follow the instructions to transfer your outdated calculations to current calculations:

1 In the "Calculations" workspace, execute the Explorer query "SC Outdated Calculations | All My Calculations":

Explorer	*	#	×
Queries			
SC Calculations			
SC Master Data			
SC Outdated Calculations			
All My Calculations			
All Calculations with Local Value Rules			
My Calculations with Local Value Rules			
SC Outdated Resources			

2 Open each outdated calculation in the result list via the context menu (right-click) "Open in New Tab".

Preview \downarrow_2^a	Name	Ųĝ	Part No	↓ ≘	Config Name	J₽	Has Outdated Configuration
	Outdated SC Calcula	tion					✓
			Ope	n in New Tab		Ctrl+Shift+O	
			Ope	n Successor			
			Crea	te Version			

3 Create a version of each outdated calculation.



ruct	ure								Production Cost	•	Σ	<u>o</u> _	J 🌮		<u>o</u> l	\Diamond	1
) 0	utdated SC Calculation 🕨														in	EUR	
	Label	₽ŝ	CL	ψ_2^a	% ProdC on SProdC	J₽	DMatC incl Inb Log	Jå	MatC	J₫	DM	anC	↓ŝ	Man		↓ŝ	
	Outdated SC Calculation			*	100	.00 %	10.00 EUR	l∕pc	10.10 EUR	/pc	0.0)5 EU	R/pc	0.05	EUR/	рс	
				0	pen		Ctrl+O										
				0	pen in New Tab		Ctrl+Shift+O										
				0	pen Successor												
				In	isert New		•										
				In	isert from File												
				C	reate Version												
				0	omplato Structura		E11										

- 4 Save and publish your changes.
- 5 Update each outdated calculation via the context menu (right-click) in the following order:

Structure

1) Configuration, 2) Global Properties, 3) Selection Lists, and 4) Elements and Sub-Elements

🗟 O.	utdated SC Calculation	•					
	Label	Ų₫	CL	↓å	% ProdC on SProdC	Ųĝ	DMatC incl Inb Log
	Outdated SC C	alculation	_	*	100 (00 %	10.00 EU
			1	Op	en		Ctrl+O
				Op	en in New Tab		Ctrl+Shift+O
			Ι.	Op	en Successor		
				Inse	ert New		•
				Inse	ert from File		
				Cre	ate Version		
				Cor	nplete Structure		F11
		2.		Upo	date Global Properties		•
		4		Upo	date Element and Sub-	Elem	ents Ctrl+M,R
				Cha	ange Costing Procedur	e	
				Op	en Active Exchange Ra	tes	
				Loc	al Lists		•
		3.		Upo	date Selection Lists		
				Cha	ange Owner		
		1.		Upo	date Configuration		
				Cop	у		Ctrl+C
				Pas	te		Ctrl+V
				Pas	te Special		•
				Dup	olicate		Ctrl+D
			×	Del	ete		Del
				Ren	nove Successor		
				Cle	ar Overridden Values		•

6 Open the previously created version (calculation with version no.) in the "Work History" view (via "View" ribbon or CTRL + 6).



Work History 🔻

Version No.	\$ ₽ Z	Label ↓2	Calculation	Statu	is √2	Version Comment	Ųĝ	Imp SP	↓
		Outdated SC Calculation	In Process		•			10.54 EUR	/p
	1	Outdated SC Calculation	In Process		· · · · ·	- No. Tob	C+-1		/p
					Open i	n New Tab	Ctri	+Shift+O	
					Open S	Successor			
					Restore	e Version			
					Open A	Active Exchange Rate	s		
					Local L	ists		,	•
					Сору		Ctrl	+C	
					Duplica	ate	Ctrl	+D	
				×	Delete		Del		
	Version No.	Version No. 4ª	Version No. ↓ ^a / ₂ Image: Constraint of the state of the stat	Version No. Image: Calculation image: Calculatimage: Calculation image: Calculatimage: Calculatimage	Version No. 1 Image: Contract of the second seco	Version No. 1 Label 1 Calculation In Process Image: Comparison of the process of	Version No. 1 Label 1 Calculation In Process Image: Comparison of the second	Version No. 1 Label 1 Calculation In Process Image: Component of the state of t	Version No. 1 Label 1 Calculation In Process In SA FUR 1 1 Outdated SC Calculation In Process In SA FUR Open in New Tab Ctrl+Shift+O Open Successor Restore Version Open Active Exchange Rates In Copy Image: Copy Ctrl+C Duplicate Ctrl+D Image: Copy Ctrl+D Image: Copy Ctrl+D

7 Only show the "Details" and "Structure" views via the "View" ribbon (other views are irrelevant for the following steps).

Key Figures	Used Objects	Explorer
 Details 	Work History	Parameters
✓ Structure	Consistency Info	
	Show/Hide	

8 Drag and drop the tab of the version next to the tab of the new calculation to compare both calculations directly:

Calculation : Outdated Sho	ould Cost Calculation [1]								- ×	: [С	Calculatio	on : Outdated Should Cost Ca	alculation											- ×
Structure	-	···· Prod	uction Cost 🔹 🗵	۰ ۲	1 🚯	<u>. </u> .	> 💡	v ≋	Assu	r		Structur	e			Product	tion Cos	t - 2	2 92	1 6		ol (V ¥	Assu
Outdated Should Co	st Calculation 🕨						in EUI	₹ ₹	.			Outo	dated Should Cost Calculatio	n 🕨									in EUR	* *	6
A	Label J	CL .	🤌 % ProdC on ΣPr	odC ↓	DMat	C incl Inb Lo	g ↓	Mat				4	Label		↓ĝ C	L ↓₂	% Proc	dC on ΣF	ProdC	↓ 2 Cin	cl Inb Log	J.	MatC	↓	
Outdated	Should Cost Calculation								P			1	Outdated Should Cos	st Calculation		*									1
									B																1
									P																
n I									1 1																

- 9 Go through each resource in the calculation structure and compare the individual values of the properties. To transfer the values from the version to the new calculation, follow the migration steps depending on the resources/cost models listed in the following sub-chapters:
 - Migration of workers and setup operators (p. 12)
 - Migration of tools and fixtures (p. 12)
 - Migration of special direct costs (p. 13)
 - Migration of machines (p. 13)
 - Migration of materials (p. 14)
 - Migration of cost model "Sawing" (assembly) (p. 14)



- Migration of cost model "Injection Molding" (process) (p. 15)
- Migration of cost model "Work Step Calculator" (process) (p. 16)
- Migration of cost model "Annealing" (process) (p. 17)
- Migration of cost model "Chipping" (process) (p. 18)
- Migration of cost model "Tempering" (process) (p. 19)

WARNING

A

Only carry out the steps if the **condition** listed in the following tables applies to your use case.

If you want to restore your calculation for any reason, you can do so in the "Work History" view by right-clicking on the version and selecting "Restore Version".

Version No.	₽ŝ	Label	₽å	Calculation Status	Ų.
		Outdated SC Cal	lculation	In Process	•
	1	Outdated SC Cal	lculation	In Process	
		Open in N	lew Tab	Ctrl+Shift	+0
		Open Suc	cessor		
		Restore V	ersion		

Migration of workers and setup operators

For workers and setup operators, the following property values of the "Details" view must be manually transferred from the version to the new calculation:

CONDITION	PROPERTY IN VERSION	PROPERTY IN NEW CALCULATION (AFTER UPDATING)
-	Calculation > Labor Group	= same as in version
-	Calculation > Number of Workers	= same as in version
-	Calculation > Number of Parallel Oper- ated Work Stations	= same as in version
-	Calculation > Tie Up Rate at Process	= same as in version

Migration of tools and fixtures

For tools and fixtures, the following properties of the "Details" view must be transferred from the version:



CONDITION	PROPERTY IN VERSION	PROPERTY IN NEW CALCULATION (AFTER UPDATING)
The tool or fixture is a local resource (not a master data resource) and has the valuation "*Calculate Allocation".	Calculation > Invest- ment > Purchase Value	= same as in version

Migration of special direct costs

For special direct costs, the following properties of the "Details" view must be transferred from the version:

CONDITION	PROPERTY IN VERSION	PROPERTY IN NEW CALCULATION (AFTER UPDATING)
The special direct costs are local resources (not master data resources).	Calculation > Special Dir- ect Cost Category Calculation > Cost per Unit	= same as in version
The special direct costs have the valu- ation "*Calculate Allocation".	Calculation > Number of Units	= same as in version

Migration of machines

The following property values for machines must be transferred from the version to other properties of the new calculation in the "Details" view:

CONDITION	PROPERTY IN VERSION	PROPERTY IN NEW CALCULATION (AFTER UPDATING)
At the machine, the property "Calculation > Fixed Machine Cost > Relevant Imputed Depreciation Period" is set to	Calculation > Fixed Machine Cost > Spe-	Calculation >
"Imputed Depreciation Period corresponds to the depre- ciation period specified manually".	cified Imputed Depre- ciation Period	Cost > Depre- ciation Period



CONDITION	PROPERTY IN VERSION	PROPERTY IN NEW CALCULATION (AFTER UPDATING)
-	Calculation > Capa- city, Utilization & Allocation Method > Machine Rate Base	= same as in ver- sion

Migration of materials

Please follow the steps below if you have set the listed quantity valuations at your material:

Migration of materials with quantity valuation "Calculate Casted Material":

CONDITION	REQUIRED ADJUSTMENT IN NEW CALCULATION (AFTER UPDATING)
-	Activate the checkbox "Calculation > Consider Volume"
-	Activate the checkbox "Calculation > Machined Parts"

Migration of materials with quantity valuation "Calculate Sheet":

CONDITION	REQUIRED ADJUSTMENT IN NEW CALCULATION (AFTER UPDATING)
-	Set property "Calculation > Calculation Method" to "Feeds"

Migration of cost model "Sawing" (assembly)

For technical reasons, it was decided for SC 12.0 to provide the "Sawing" cost model for the "Part" resource instead of the "Assembly" resource. The cost model is no longer supported for the assembly. To transfer the cost model, please proceed as follows:

1 In your cost model calculation for "Sawing", add a new part on the same level and with the same quantity type as the assembly (e.g. "piece").



Stru	cture		000000000			0000000		000000
6	Outdated SC Calculation 🕨							
	Label	J₽	CL ↓	Â	% ProdC on SProdC	J₫	DMatC incl Inb Log	$\int dt dt$
	🔻 🗟 🕂 Outdated SC Calculation			•				
	🕨 🚴 <u>A</u> Sawing Assembly (Piece)			•				
	🕥 <u>A</u> Sawing Part (Piece)			•				

2 At the part, set the "Manufacturing Valuation" to "Calculate Sawing" in the "Details | Calculation".

Details	00000	C
🍞 Sawing Part (Piece)		
Name	₽ŝ	Value
Valuation		*Aggregate Costs 🔹 🔻
Relevant Quantity		1.00 pc/pc
Manufacturing Valuation		•
		Calculate Sawing Calculate Drilling Calculate Cable Harness

- 3 Transfer the value for "General Properties | Material Classification" from the assembly to the part.
- 4 Transfer (copy) all other values under the group "Manufacturing Valuation" from the assembly to the part.
- 5 Select the part in the structure and select "Complete Structure" in the context menu (right-click).

If several resources are found, select the correct machine or material in the selection dialog.

- 6 Delete the assembly after transferring all values to the part.
- 7 Save and publish your changes.

Further Information on the cost model can be found in our <u>Online Help</u>.

Migration of cost model "Injection Molding" (process)

The "Injection Molding" cost model was newly developed with the CMD. The old cost model is no longer supported. If you want to keep using the old cost model, you should not update the process (in this case, the migration steps are irrelevant for you).

If you do wish to use the new cost model, please carry out the following migration steps:



1 In your cost model calculation for "Injection Molding", add a new process on the same level as the previous process.

Struct	ure			00
<u>ο</u> Οι	Itdated SC Calculation 🕨			
	Label \downarrow^a_z	CL	₽ŝ	9
	🔻 🗟 🕂 Outdated SC Calculation		•	
	🕨 🌣 🗥 Injection Molding (Outdated)		•	
	🔅 🛆 Injection Molding (New)		•	

2 At the new process, set the "Manufacturing Valuation" to "Calculate Injection Molding" in the "Details | Calculation".

Details		0000000	Calculation 🔻 🔳
Injection Molding			
Name	↓ ² Value		Instruction Text
Valuation	*Aggregate Costs	•	
Manufacturing Valuation	A Calculate Injection Molding	×.	
Input Parameters		6	

- 3 Transfer (copy) all property values from the old process to the new process.
- 4 Select the process in the structure and select "Complete Structure" in the context menu (right-click).
- 5 Delete the old process after transferring all values to the new process.
- 6 Save and publish your changes.

Further Information on the cost model you can find in our <u>Online Help</u>.

Migration of cost model "Work Step Calculator" (process)

This is how you ensure that all work step resources are migrated:

1 In your cost model calculation for "Work Step Calculator", create a new resource "Work Step (Cycle)" for each outdated (grayed out) work step under the process - either locally or in the master data, depending on the original work step.



			2011					
🔒 Assem	nbly 🔹 👘 📄 Grouping 🔹 🧯	🕖 Manufacturing (Cell 👻 🗒 Primary Cost Cente	er 🔝 Secondary Cost Cent	er 🔞 Special Direct Cost 🔻	🛟 Work Step 🔹 🔰		
Comn	nercial Measure - 🗊 Machine - 🛛 👌	🔥 Material 👻	C Process	🚊 Setup Operator	🥊 Technical Measure 🛪	🛟 Work Steps		
🖳 Fixtur	e 🔹 🖳 Machining Unit 🔇	〕 Part 🔻	Production Line *	🖉 Setup Process	🔆 Tool 🕶	🛟 Insert New Lo	ocal Work Step (Cycle)	
			Insert			🎊 Insert New Lo	cal Work Step (Time) In	ert Work Step (Cycle)
Calculat	tion : Outdated Should Cost Calculation]						
				D. I. I. O. I		v*	D / 1	
Structu	ure			Production Cost *	2 2 9 🕬 📫	💒 🐶 🏅	Details	
🔊 Ou	utdated Should Cost Calculation 🕨					in EUR 🔻	Process	
	Label	\downarrow_2° CL \downarrow_2°	% ProdC on Σ ProdC $\qquad \downarrow_2^n$	DMatC incl Inb Log $- \downarrow_2^n$	MatC \downarrow_2^a DManC \downarrow_2^a	ManC ↓2 Proc	Name	2
		1.11						
	Image: Contracted Should Cost Calc	ulation 🔪 🔹				Â	Valuation	Calculate Work Steps
	Outdated Should Cost Calc V Process						Valuation	Calculate Work Steps
	Gutdated Should Cost Calc Cost Calc C	i)					Valuation Cycle Time	Calculate Work Steps
	Work Step 1 (Outdated Should Cost Calc Work Step 1 (Outdated Should Cost Calc Work Step 2 (Outd	d)				Â	Valuation Cycle Time Cycles per Time	Calculate Work Steps
	Wind Start And Start	ulation • J) • d) •				Â	Valuation Cycle Time Cycles per Time Output per Cycle	Calculate Work Steps

- 2 Transfer (copy) all property values from each old work step to its new work step.
- 3 Delete the old work steps after transferring all values to the new work steps.
- 4 Save and publish your changes.

Further Information on the cost model you can find in our <u>Online Help</u>.

Migration of cost model "Annealing" (process)

For the migration of the "Annealing" cost model, the values at the process for "Number of Parts" may have to be transferred manually. To do this, follow the migration steps:

- 1 Compare the version of your cost model calculation for "Annealing" with the corresponding new calculation.
- 2 Transfer the values for "Number of Parts" in the "Details | Calculation" at the process from the version to the new calculation, if the values do not match.

Please note that the new field is not a simple input field, but an overridable field (pen symbol) which is activated with F12.



tails Calculat	tion 🔻 🗐 🔯 🖟 🔯 🛈) Details	Calculation 🔻
Process		Direction Process	
Name	↓ ^a _2 Value	Name	↓ ² Value
Valuation	\Lambda Calculate Annealing	Valuation	🕂 Calculate Anneali
Manufacturing Valuation		Manufacturing Valuation	
Material		Material	
▼ Part		▼ Part	
Max Wall Thickness	5.00 mm	Max Wall Thickness	5.00 mm
Part Weight	100.00 g	Part Weight	100.00 g
Number of Parts	42	Number of Parts	42
Total Weight of Parts	4.20 kg	Total Weight of Parts	4.20 kg
Total Volume of Parts	▲ 525.00 cm ³	Total Volume of Parts	▲ 525.00 cm ³

3 Save and publish your changes.

Further Information on the cost model you can find in our <u>Online Help</u>.

Migration of cost model "Chipping" (process)

For the migration of the "Chipping" cost model, the values for the "Positioning Count" at the work steps may have to be transferred manually. To do this, follow the migration steps:

- 1 Compare the version of your cost model calculation for "Chipping" with the corresponding new calculation.
- 2 Open the local list for work steps for the old and the new process under "Details | Calculation | Work Steps" using the "[...]" button.



3 In the local list, select each work step and transfer the value for "Positioning Count" in the "Details | Secondary Processing Times" from the version to the new calculation, if the values do not match.



Please note that the new field is not a simple input field, but an overridable field (pen symbol) which is activated with F12.

Secondary Processing Times		V Secondary Processing Tin	nes	
Loading		Loading		
Loading Time		Loading Time		
Unloading		Unloading		
Unloading Time		Unloading Time		
Change Tool		Change Tool		
Chip to Chip Time		Chip to Chip Time	-	
Reclamping Part		Reclamping Part		
Reclamping Time		Reclamping Time		
Positioning Tool		Positioning Tool		
Positioning Time		Positioning Time		
Positioning Count	5	Positioning Count	1.	5

4 Save and publish your changes.

Further Information on the cost model you can find in our Online Help.

Migration of cost model "Tempering" (process)

For the migration of the "Hardening & Tempering" cost model, the values for "Relevant Heating Rate" at the "Tempering" process may have to be transferred manually. To do this, follow the migration steps:

- 1 Compare the version of your cost model calculation for "Hardening & Tempering" with the corresponding new calculation.
- 2 Transfer the values for "Relevant Heating Rate" in the "Details | Calculation | Temperature & Rates" at the process from the version to the new calculation, if the values do not match.

Please note that the new field is not a simple input field, but an overridable field (pen symbol) which is activated with F12.

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Details Calculation	· • 🗐 💷 () 🔅 🖬 ()	Details Calculatio	Details Calculation -	Details Calculation -	Details Calculation -	Details Calculation -	Details Calculation 👻 🗐 💿 🖗 🔅	Details Calculation - 🗐 💷 🖗 🔅 📴
ØF Process		🔅 Process	Process	Process	Process	Process	↓ Process	∯ Process
Name	↓2 Value	Name	Name 42	Name 42	Name 42 V	Name 42 Value	Name 42 Value	Name 42 Value
Valuation	A Calculate Tempering	Valuation	Valuation	Valuation 🛆 🕻	Valuation 🖄 Calcula	Valuation 🛆 Calculate Tempe	Valuation 🔬 Calculate Temperi	Valuation 🖄 Calculate Temperi
Manufacturing Valuation		Manufacturing Valuation	Manufacturing Valuation	Manufacturing Valuation				
Material		Material	Material	Material	Material	Material	▶ Material	▶ Material
▶ Part		▶ Part	▶ Part	▶ Part				
Temperature & Rates		Temperature & Rates		▼ Temperature & Rates	Temperature & Rates		Temperature & Rates	
Tempering Stage	Tempering Stage 1	Tempering Stage	Tempering Stage	Tempering StageTemp	Tempering Stage Tempering	Tempering Stage	Tempering Stage Tempering Stage 1	Tempering Stage Tempering Stage 1
Initial Temperature	25.00 °C	Initial Temperature	Initial Temperature	Initial Temperature	Initial Temperature	Initial Temperature 25.00 °C	Initial Temperature 25.00 °C	Initial Temperature 25.00 °C
Heating Temperature	140.00 °C	Heating Temperature	Heating Temperature	Heating Temperature	Heating Temperature	Heating Temperature 140.00 *C	Heating Temperature 140.00 °C	Heating Temperature 140.00 °C
Heating Temperature Difference	115.00 K	Heating Temperature Difference 115.00 K	Heating Temperature Difference 115.00 K	Heating Temperature Difference 115.00 K				
Required Thermal Energy	285.25 kJ	Required Thermal Energy	Required Thermal Energy	Required Thermal Energy	Required Thermal Energy	Required Thermal Energy 285.25 k	Required Thermal Energy 285.25 kJ	Required Thermal Energy 285.25 kJ
Cooling Temperature	25.00 °C	Cooling Temperature	Cooling Temperature	Cooling Temperature	Cooling Temperature	Cooling Temperature 25.00 °C	Cooling Temperature 25.00 °C	Cooling Temperature 25.00 °C
Cooling Temperature Difference	115.00 K	Cooling Temperature Difference 115.00 K	Cooling Temperature Difference 115.00 K	Cooling Temperature Difference 115.00 K				
Max Heating Rate	725.69 K / h	Max Heating Rate	Max Heating Rate	May Heating Rate	Max Heating Rate	Max Heating Rate 725.69 K	Max Heating Rate 725.69 K / h	May Heating Rate 725.69 K / h
Relevant Heating Rate	750.00 K/h	Relevant Heating Rate	Relevant Heating Rate	Relevant Heating Rate /	Relevant Heating Rate	Relevant Heating Rate /, 750.00 K	Relevant Heating Rate /, 750.00 K/h	Relevant Heating Rate 1. 750.00 K/h
Relevant Cooling Rate	80.00 K/h	Relevant Cooling Rate	Relevant Cooling Rate	Relevant Cooling Rate	Relevant Cooling Rate	Relevant Cooling Rate . 80.00 K	Relevant Cooling Rate . 80.00 K/h	Relevant Cooling Rate . 80.00 K/h

3 Save and publish your changes.

Further Information on the cost model you can find in our Online Help.

1.5.3 Migration of Excel import templates

With regard to CMD compatibility, some new properties had to be introduced. These changes also affect some properties in existing Excel import templates. The column names of the tables must be updated in some combinations. Templates that import master data do not need to be adjusted.

If you want to use your existing Excel import templates, please change the templates for local calculation structures according to the scheme in the following sub-chapters:

- Adjust import templates for work steps (p. 20)
- Adjust import templates for workers and setup operators (p. 21)
- Adjust import templates for tools (p. 21)
- Adjust import templates for fixtures (p. 22)
- Adjust import templates for special direct costs (p. 22)
- Adjust import templates for machines (p. 23)

Adjust import templates for work steps

The following changes are required in the Excel templates for importing work steps:



- 1 Rename the "_Signature" for all work steps from "WorkStep" to "WorkStep2".
- 2 Change the "_QuantityType" to "Cycle^1" for all work steps.

Example:

#Structure	🔻 #Le 💌 Label.Invariant 📃 💌	_Valuation	 Signature 	🕶 _QuantityType 💌
Should Cost Calculation	0 Should Cost Calculation		ShouldCostCalculation	Piece^1
Process	1 Process	CostModelWorkStepCalculator	Process	Cycle^1
WorkStep 1	2 WorkStep 1		WorkStep2	Cycle^1
WorkStep 2	2 WorkStep 2		WorkStep2	Cycle^1
WorkStep 3	2 WorkStep 3		WorkStep2	Cycle^1
WorkStep 4	2 WorkStep 4		WorkStep2	Cycle^1
WorkStep 5	2 WorkStep 5		WorkStep2	Cycle^1

Adjust import templates for workers and setup operators

The following properties must be renamed in the Excel templates for importing workers and setup operators:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING)
NumberOfWorkers	NumberOfWorkersAtPosition
Work- erNum- berOfSimultaneouslyOperatedWorkstations	Work- erNum- berOfSimultaneouslyOperatedWorkstationsAtPosition
WorkerTieUpRateAtProcess	WorkerTieUpRateAtProcessAtPosition
LaborGroup	LaborGroupAtPosition

Example:

#Structure	NumberOfWorkersAtPosition	WorkerNumberOfSimultaneouslyOperatedWorkstationsAtPosition	WorkerTieUpRateAtProcessAtPosition.Number	💌 WorkerTieUpRateAtProcessAtPosition.Unit 🖉	LaborGroupAtPosition.Key 🔽
Should Cost Calculation					
Process					
Worker		3	4	5 %	EG04

Adjust import templates for tools

The following property must be renamed in the Excel templates for importing tools, if it is a local resource, **not** a master data resource:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING)
ToolPurchaseValue	ToolPurchaseValueAtPosition

Example:



#Structure	Ŧ	ToolPurchaseValueAtPosition.Number	-	ToolPurchaseValueAtPosition.Unit	-
Should Cost Calculation					
Process					
Tool		500	000	EUR	

Adjust import templates for fixtures

The following property must be renamed in the Excel templates for importing fixtures, if it is a local resource, **not** a master data resource:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING			
FixturePurchaseValue	FixturePurchaseValueAtPosition			

Example:

#Structure	-	FixturePurchaseValueAtPosition.Number	-	FixturePurchaseValueAtPosition.Unit	-
Should Cost Calculation					
Process					
Fixture		5000	00	EUR	

Adjust import templates for special direct costs

The following property must be renamed in the Excel templates for importing special direct costs:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING)
NumberOfUnits	NumberOfUnitsAtPosition

The following properties must be renamed, if it is a local resource, **not** a master data resource:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING)			
SpecialDirectCostPerUnit	SpecialDirectCostPerUnitAtPosition			
SpecialDirectCostCategory	SpecialDirectCostCategoryAtPosition			

Example:

#Structure	SpecialDirectCostCategoryAtPosition.Key	NumberOfUnitsAtPosition	SpecialDirectCostPerUnitAtPosition.Number	SpecialDirectCostPerUnitAtPosition.Unit
Should Cost Calculation				
Special Direct Cost	ALC		5 2	00 EUR



Adjust import templates for machines

The following property must be renamed, as well as defined as key field (".Key") with value "MACHINE" in the Excel templates for importing machines:

OLD PROPERTY	NEW PROPERTY (AFTER UPDATING)			
ManuallySpecifiedImputedDepreciationPeriod	MachineDepreciationPeriod			

Example:

#Structure	UseManuallySpecifiedImputedDepreciationPeriod	ManuallySpecifiedImputedDepreciationPeriod.Number	ManuallySpecifiedImputedDepreciationPeriod.Unit 💌
Should Cost Calculation			
Process			
Machine	TRUE	10	la ,
		-	
#Structure	RelevantImputedDepreciationPeriod.Key	MachineDepreciationPeriod.Number	MachineDepreciationPeriod.Unit
Should Cost Calculation			
Process			
Machine	MACHINE	10	a .