Calculation

Information on the calculation area in FEPA, notes on automatic calculation

- General
- Reporting
- Precalculation

General

In FEPA, the calculation numbers 1 and 2 are reseved by the FEPA system.

Automatic calculations

Calculation number No. 1 is for the automatic calculation, the data is displayed in the master data item in the tab "Calculation results (mandant)" after selecting the mandant.

All aticles that are not identified as purchased items by the character key "K" are automatically recalculated every weekend. The automatic calculation runs via a service as it can take approx. 8 hours per mandant as all items are calculated per mandant.

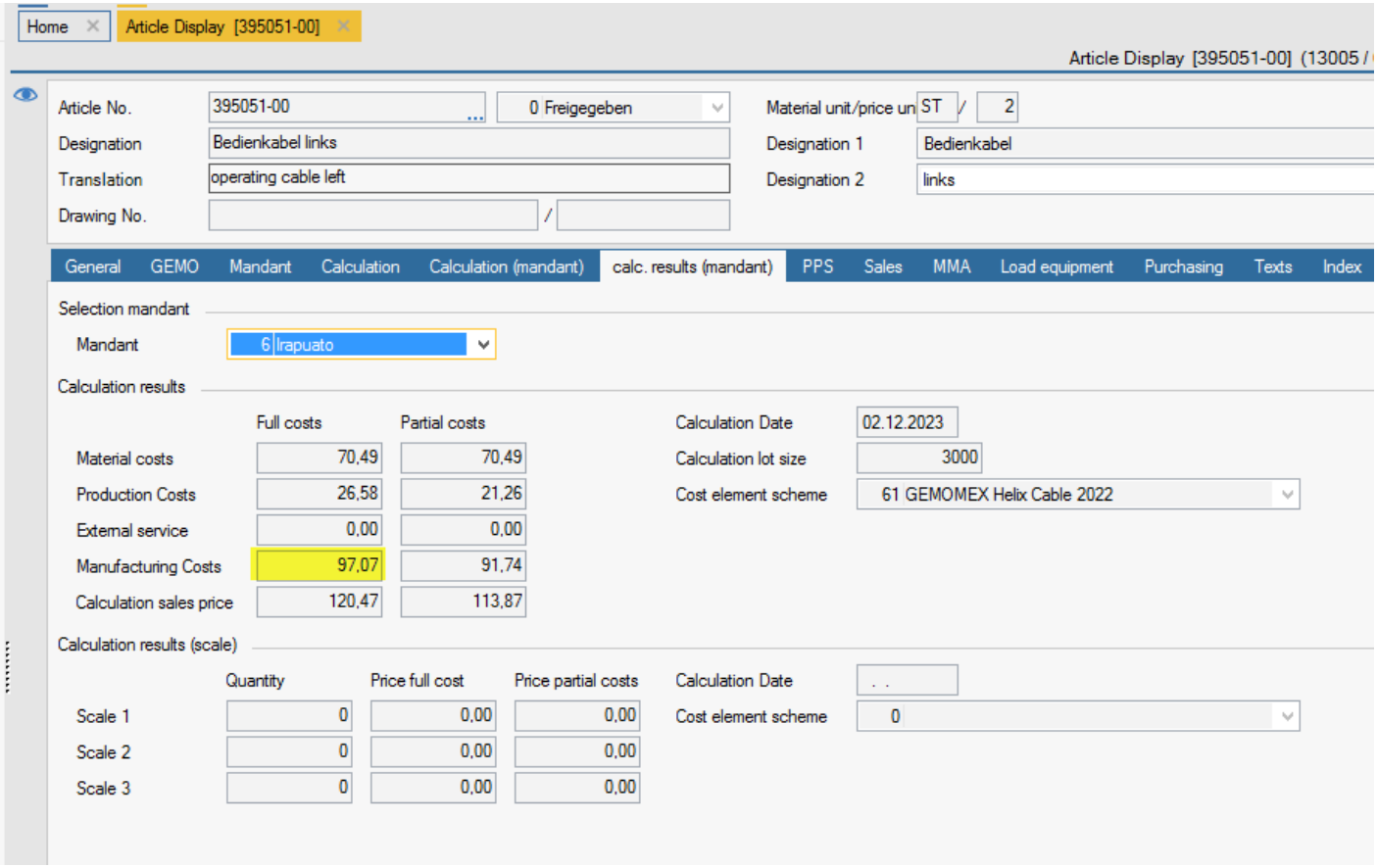
The calculation can only run correctly if the master data is maintained correctly.

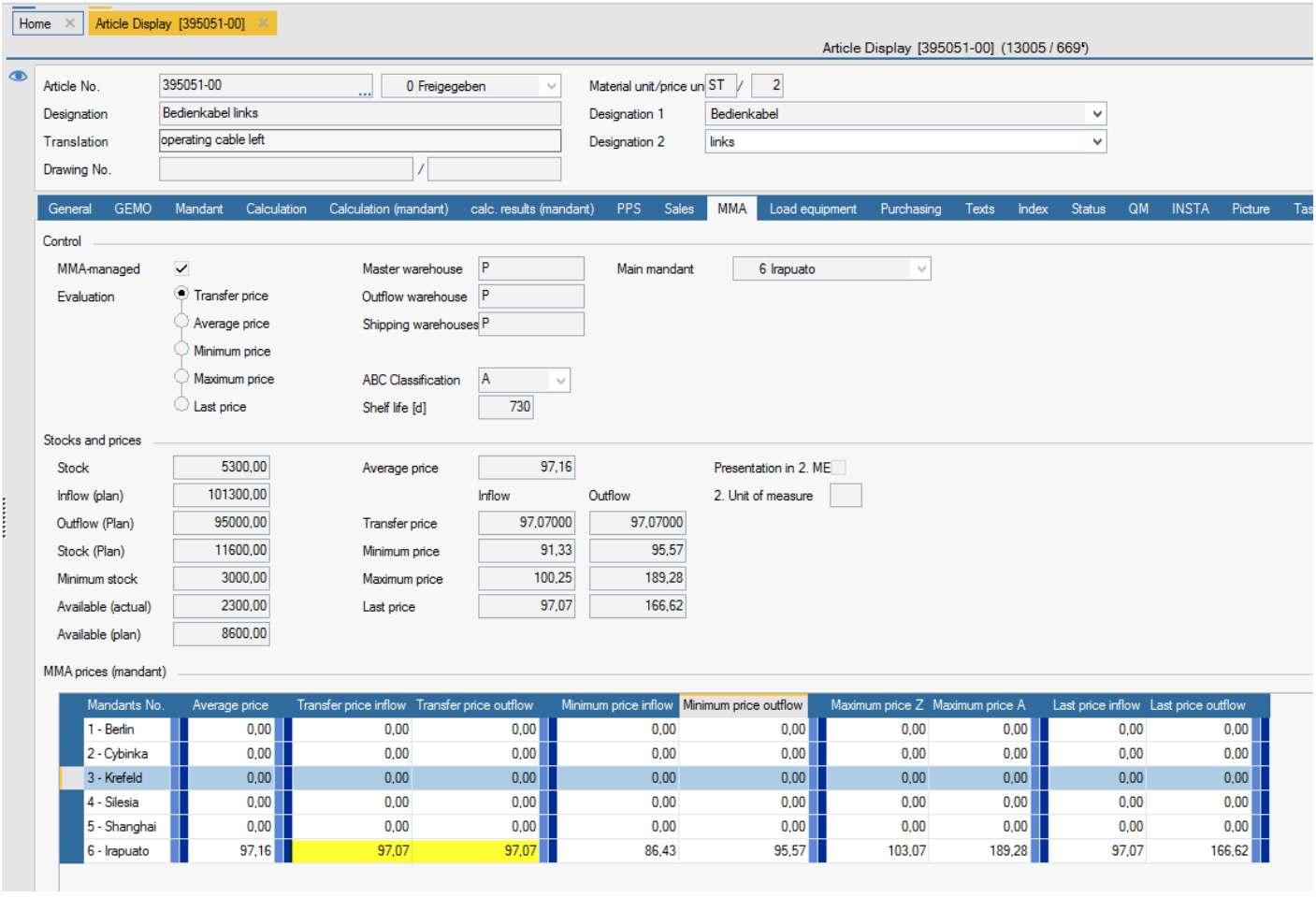
- master data > article
- master data > ressources
- master data > work places
- calculation > cost type scheme
- utlity progam > wage groups

Update transfer prices

On Monday morning, all newly calculated production costs (full costs) are transferred by batch to the transfer prices receipt & issue in the master data>article, MAWI tab for the client of the cost estimate.
For articles with the character key "K" or "H", the transfer price is updated by the last price inflow.

A list is sent to selected colleagues by email if the price of the article has changed.


Home
Article Display [395051-00]
Article Display [395051-00] (13005 /
Article No. 395051-00
0 Freigegeben
Material unit/price un ST / 2
Designation Bedienkabel links
Designation 1 Bedienkabel
Translation operating cable left
Designation 2 links
Drawing No.
General GEMO Mandant Calculation Calculation (mandant) calc. results (mandant) PPS Sales MMA Load equipment Purchasing Texts Index
Selection mandant
Mandant 6 Irapuato
Calculation results
Full costs Partial costs
Material costs 70,49 70,49
Production Costs 26,58 21,26
External service 0,00 0,00
Manufacturing Costs 97,07 91,74
Calculation sales price 120,47 113,87
Calculation Date 02.12.2023
Calculation lot size 3000
Cost element scheme 61 GEMOMEX Helix Cable 2022
Calculation results (scale)
Quantity Price full cost Price partial costs
Scale 1 0 0,00 0,00
Scale 2 0 0,00 0,00
Scale 3 0 0,00 0,00
Calculation Date
Cost element scheme 0


Home
Article Display [395051-00]
Article Display [395051-00] (13005 / 669
Article No. 395051-00
0 Freigegeben
Material unit/price un ST / 2
Designation Bedienkabel links
Designation 1 Bedienkabel
Translation operating cable left
Designation 2 links
Drawing No.
General GEMO Mandant Calculation Calculation (mandant) calc. results (mandant) PPS Sales MMA Load equipment Purchasing Texts Index Status QM INSTA Picture
Control
MMA-managed
Evaluation
Transfer price
Average price
Minimum price
Maximum price
Last price
Master warehouse P
Outflow warehouse P
Shipping warehouses P
ABC Classification A
Shelf life [d] 730
Main mandant 6 Irapuato
Stocks and prices
Stock 5300,00
Inflow (plan) 101300,00
Outflow (Plan) 95000,00
Stock (Plan) 11600,00
Minimum stock 3000,00
Available (actual) 2300,00
Available (plan) 8600,00
Average price 97,16
Inflow Outflow
Transfer price 97,07000 97,07000
Minimum price 91,33 95,57
Maximum price 100,25 189,28
Last price 97,07 166,62
Presentation in 2. ME
2. Unit of measure
MMA prices (mandant)
Mandants No. Average price Transfer price inflow Transfer price outflow Minimum price inflow Minimum price outflow Maximum price Z Maximum price A Last price inflow Last price outflow
1 - Berlin 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
2 - Cybinka 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
3 - Krefeld 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
4 - Silesia 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
5 - Shanghai 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
6 - Irapuato 97,16 97,07 97,07 86,43 95,57 103,07 189,28 97,07 166,62

Reporting

General

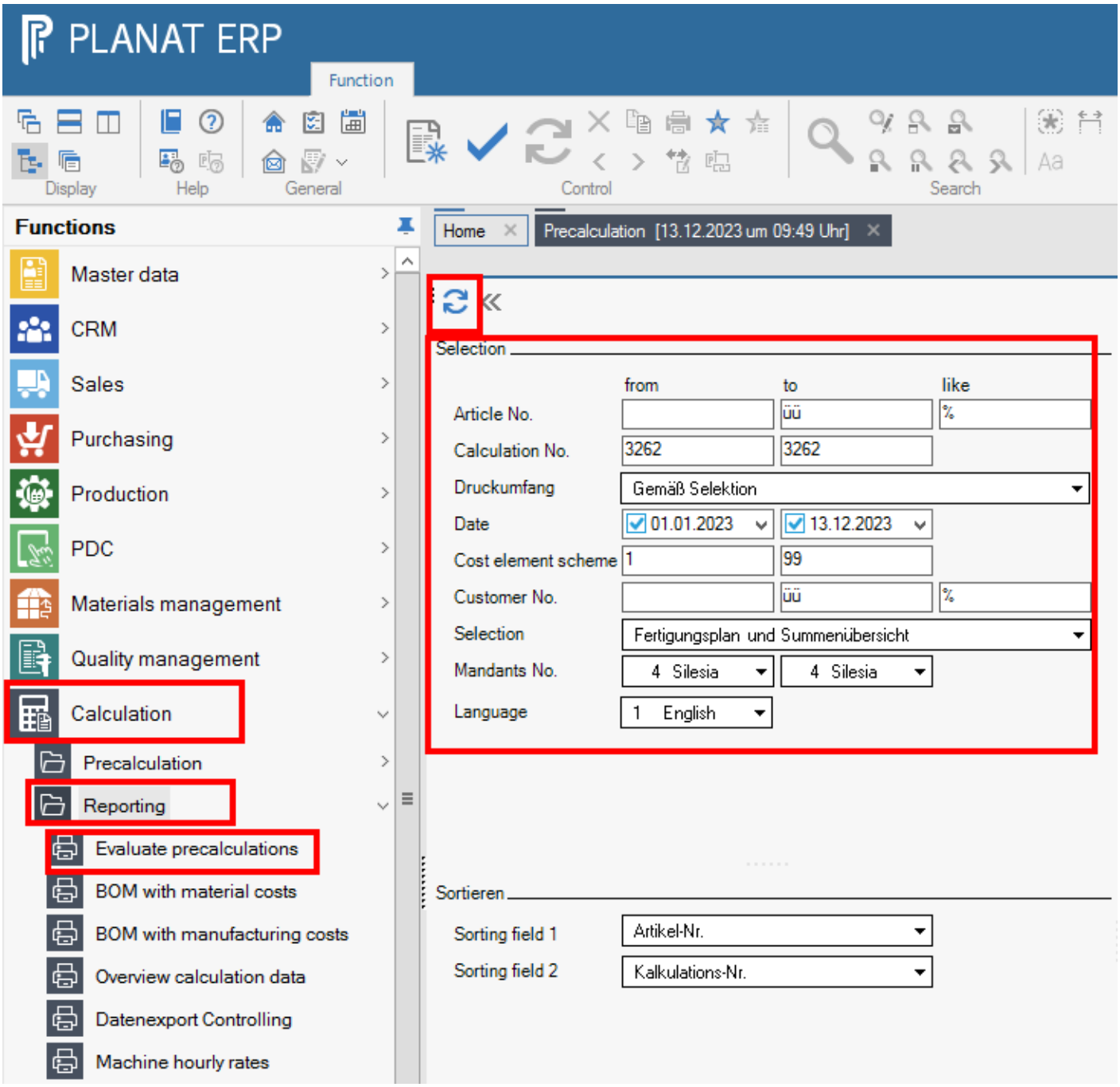
Only the tables can be transferred to Excel via the display of the calculations. However, the header data for the cost estimate, such as article number, lot size, cost element scheme, etc. are missing here.

Evaluate precalculations

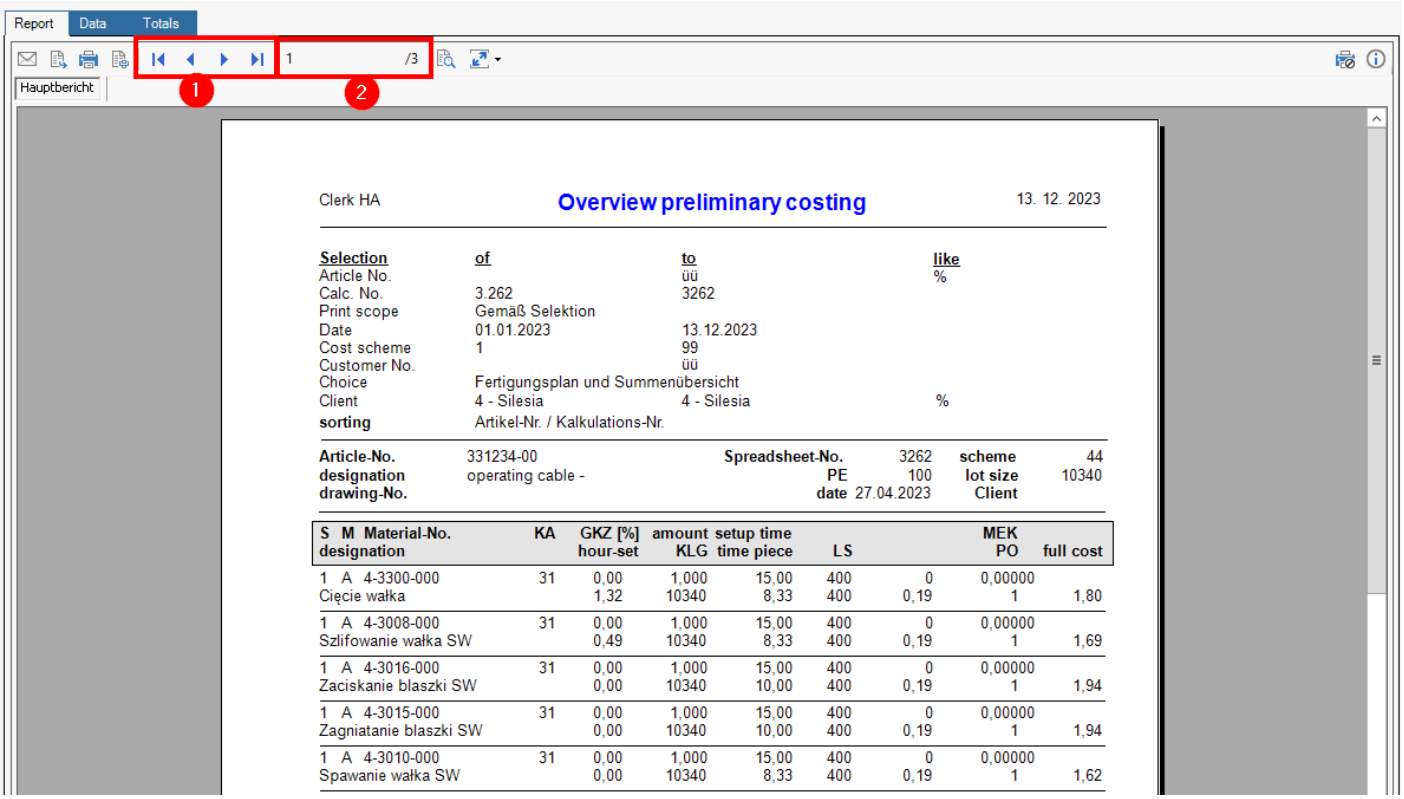
In FEPA under the function `Calculation > Reporting > Evaluate precalculation` is the report, which can also be exported to a PDF.

I can restrict the result via the selection. The data refers to the information stored in the cost estimates.

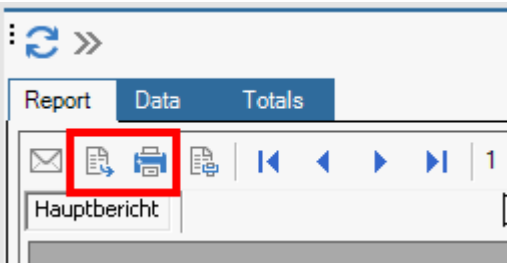
e.g. - a specific calculation that you have created, enter/select selection criteria and press the "Update" button



A report is generated. Page one begins with the work plan data, followed by the totals overview. Area 1 is used to scroll through the pages. Area 2 is the page display.



The document can be exported to a PDF via the export button, alternatively it can also be printed on our PDF printer. The setting is made via the printer symbol directly next to it.



In the other views, you will find the item data of the calculation (Data tab) and the totals data (Totals tab), which can be exported individually to an Excel sheet using the right mouse button.

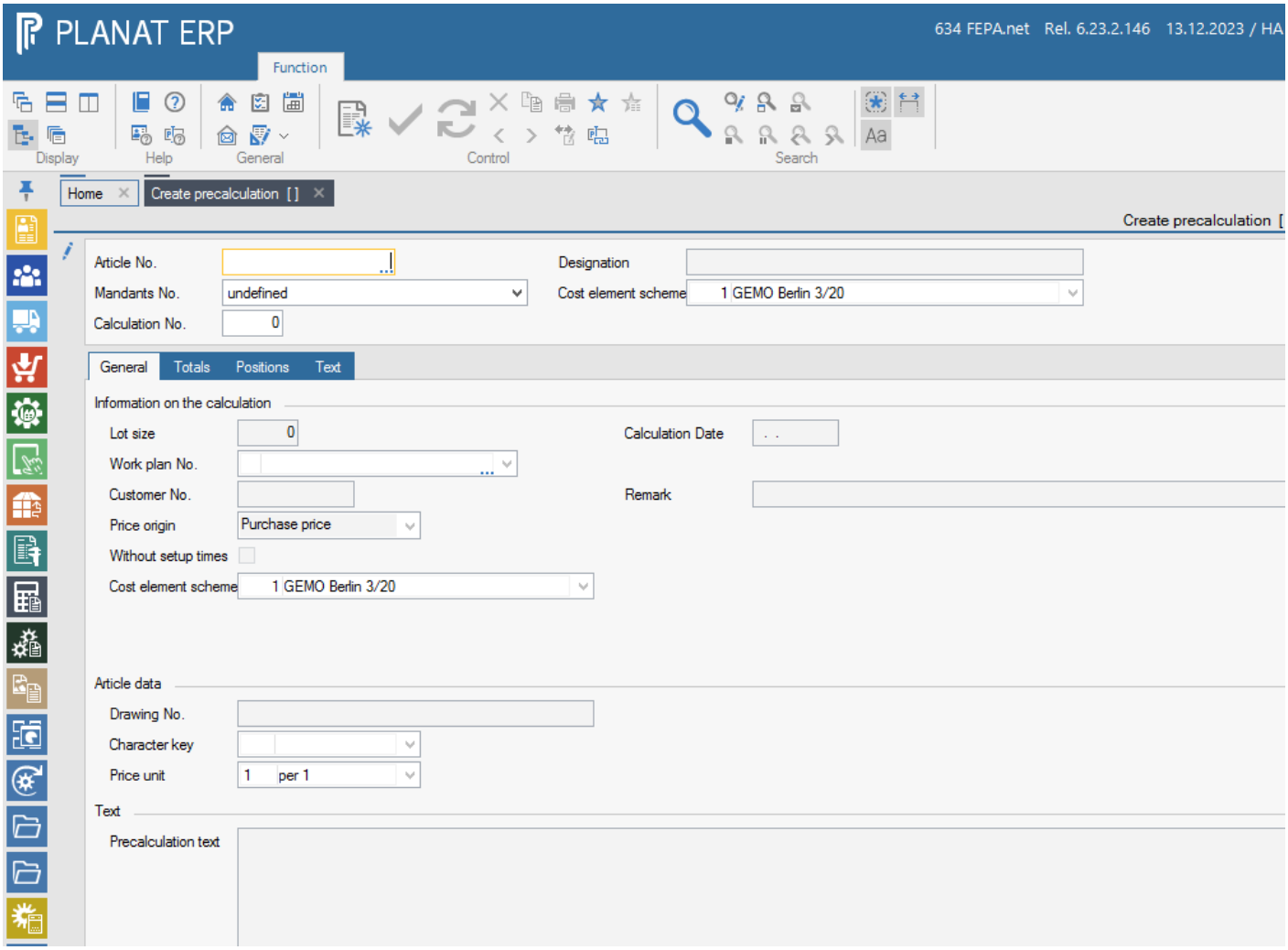
Precalculation

Create precalculation

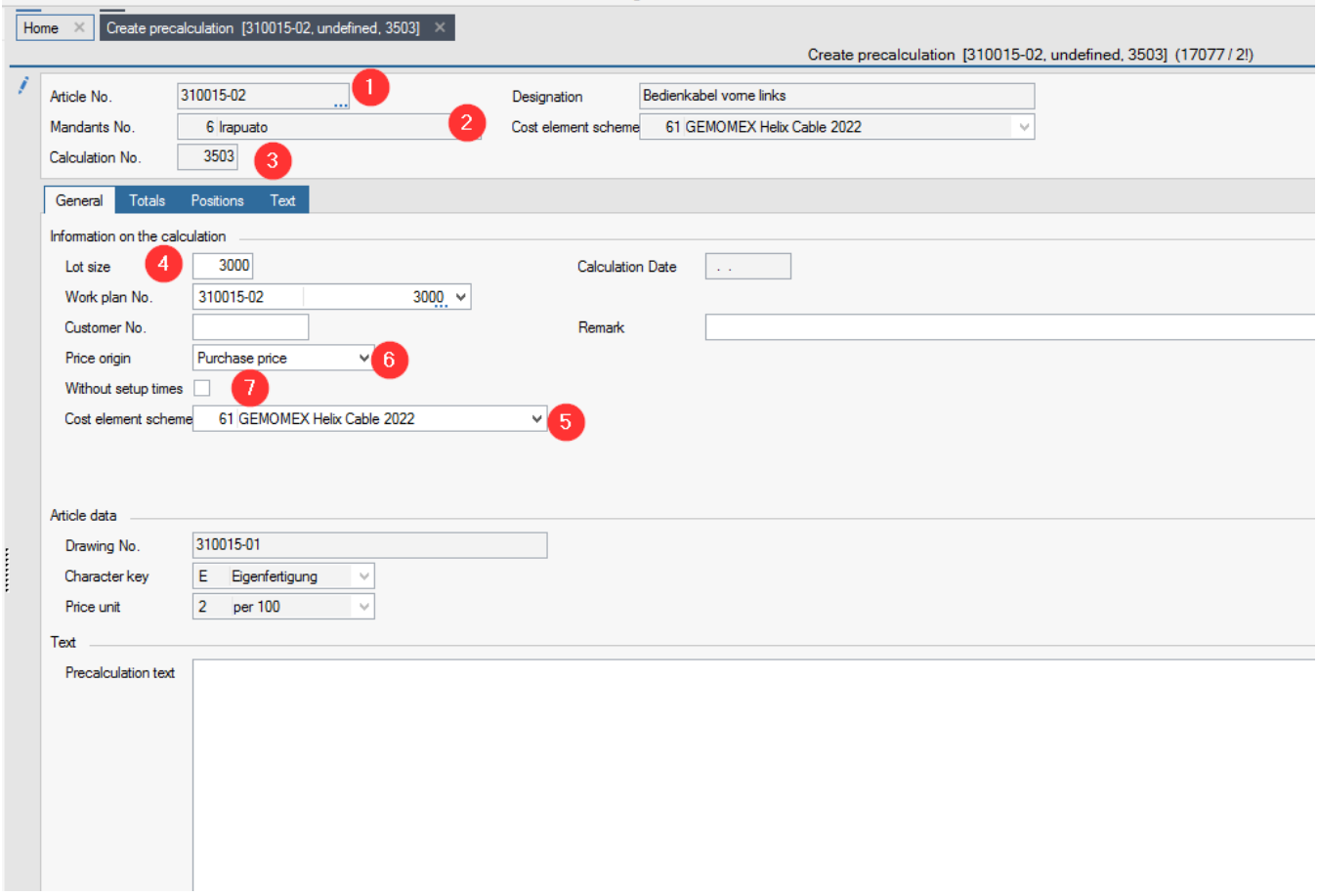
FEPA function: `Calculation > Calculation > Create precalculation > Create calculation.`

You can also refer to the FEPA help, menu bar button "Help" (question mark in circle). Here you will find information on the FEPA basic version and the fields displayed.

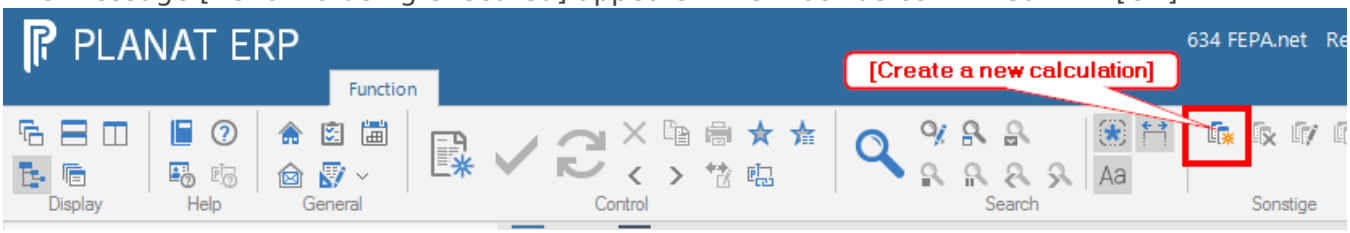
> Note: Master calculation is calculation no. 1. It is displayed in the client in the master data in the Calc. Client results tab in the client. If the master cost estimate is created via Create precalculation, the costing lot size is overwritten with the lot size in the cost estimate in the master data!



1. Article no. - Enter Press Enter
2. Mandant - select from list and press Enter
3. Calculation no. - if new calculation, then continue with Enter or open known calculation, then enter the calculation no. and press Enter. Then the name and the cost element scheme, if stored, are taken from the master data (article) and it is checked whether the article is not a purchased part. The lot size is taken from the [to quantity] field in the routing assignment.
4. Lot size - check, change if necessary
5. Cost element scheme - check no. and change if necessary
6. Price origin - purchase price = last MEK (direct material costs), graduated price = from delivery conditions (is taken as it was stored in the calculation schema)
7. Toggle without setup times, if this is ticked, setup times are not drawn

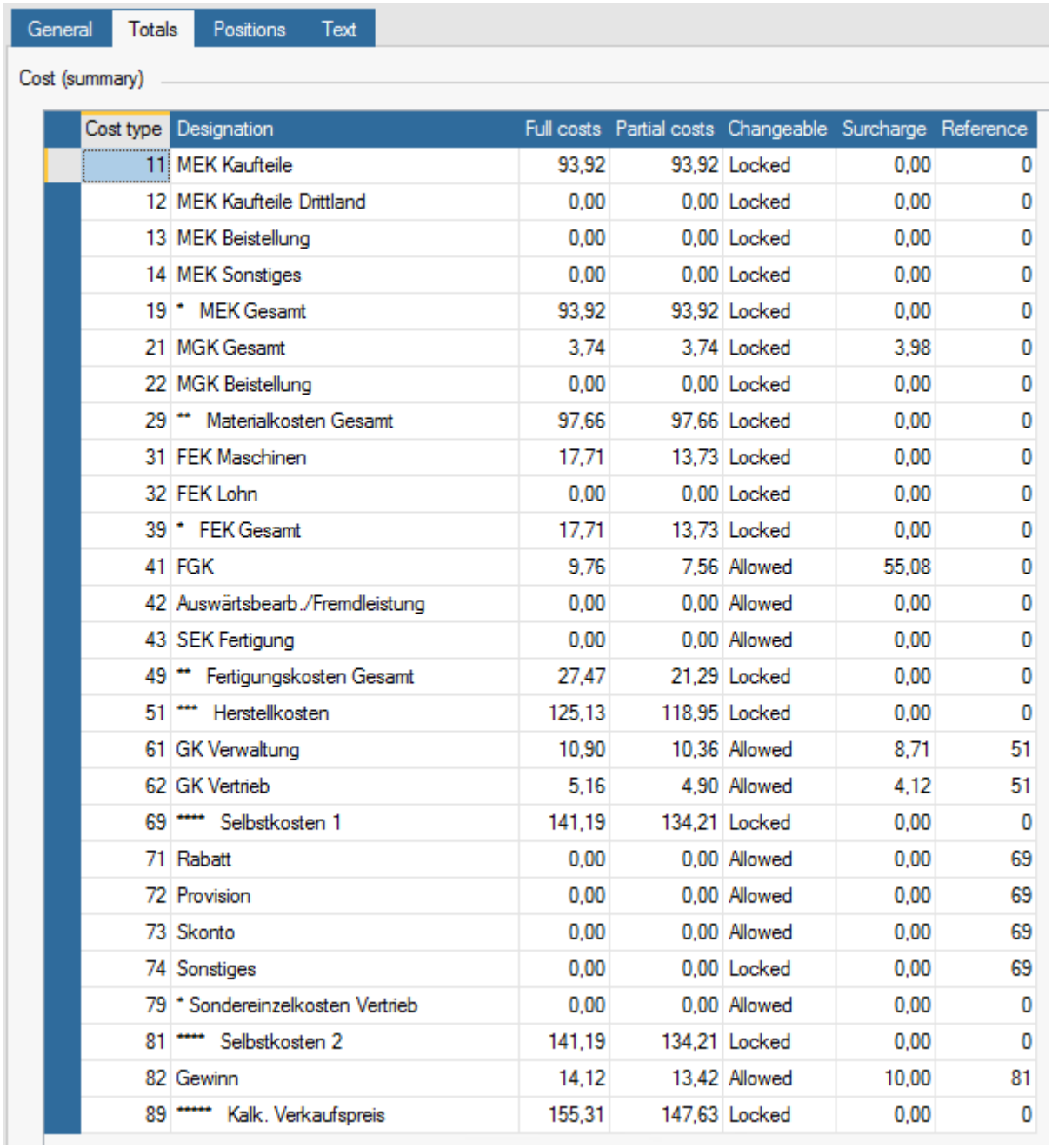


8. Then press the [Create new calculation] button. The item is calculated with the set data. The message [Action is being executed] appears. This must be confirmed with [OK].



After creating the calculation, nothing changes in the view except the menu bar in the header and the totals and position tabs are filled.

The Totals tab contains the values of the calculation for the cost elements and surcharges stored in the cost element structure and the prices resulting from the work plan and the bill of materials.


General | Totals | Positions | Text

Cost (summary)

Cost type	Designation	Full costs	Partial costs	Changeable	Surcharge	Reference
11	MEK Kaufteile	93,92	93,92	Locked	0,00	0
12	MEK Kaufteile Drittland	0,00	0,00	Locked	0,00	0
13	MEK Beistellung	0,00	0,00	Locked	0,00	0
14	MEK Sonstiges	0,00	0,00	Locked	0,00	0
19	* MEK Gesamt	93,92	93,92	Locked	0,00	0
21	MGK Gesamt	3,74	3,74	Locked	3,98	0
22	MGK Beistellung	0,00	0,00	Locked	0,00	0
29	** Materialkosten Gesamt	97,66	97,66	Locked	0,00	0
31	FEK Maschinen	17,71	13,73	Locked	0,00	0
32	FEK Lohn	0,00	0,00	Locked	0,00	0
39	* FEK Gesamt	17,71	13,73	Locked	0,00	0
41	FGK	9,76	7,56	Allowed	55,08	0
42	Auswärtsbearb./Fremdleistung	0,00	0,00	Allowed	0,00	0
43	SEK Fertigung	0,00	0,00	Allowed	0,00	0
49	** Fertigungskosten Gesamt	27,47	21,29	Locked	0,00	0
51	*** Herstellkosten	125,13	118,95	Locked	0,00	0
61	GK Verwaltung	10,90	10,36	Allowed	8,71	51
62	GK Vertrieb	5,16	4,90	Allowed	4,12	51
69	**** Selbstkosten 1	141,19	134,21	Locked	0,00	0
71	Rabatt	0,00	0,00	Allowed	0,00	69
72	Provision	0,00	0,00	Allowed	0,00	69
73	Skonto	0,00	0,00	Allowed	0,00	69
74	Sonstiges	0,00	0,00	Locked	0,00	69
79	* Sondereinzelkosten Vertrieb	0,00	0,00	Allowed	0,00	0
81	**** Selbstkosten 2	141,19	134,21	Locked	0,00	0
82	Gewinn	14,12	13,42	Allowed	10,00	81
89	***** Kalk. Verkaufspreis	155,31	147,63	Locked	0,00	0

You can change changeable surcharges (Changeable column: allowed), but FEPA only recalculates according to manufacturing costs. I.e. I can change the MGK(material overheads) Total (21) in the Surcharge column, but FEPA still does not recalculate because this cost element comes before the cost of goods manufactured (80). This means that only cost elements from no. 81 onwards are taken into account in the recalculation of a cost estimate.

Positions tab

For an improved display, click in the table with the mouse and click on [Auto column alignment] with the right mouse button.
Columns that you do not want to see can be hidden by clicking with the mouse in the heading and

unchecking the relevant column.

The table is organised by levels and types.

- Work place type = operation from the routing
- Material type = parts list item from the routing
- Assembly type:
  If a BOM item is an "in-house production" and has a BOM and a work plan, it becomes an assembly and the type work place and material are assigned level 2. (This would continue if this applies to BOM items again. → level 3, level 4 etc.)
  If the material is a pseudo item, the operation must not have full costs, as it also occurs in level 1. Only material prices are relevant here.

The value in the full costs column is transferred to the totals list (Totals tab) for the line of the relevant cost element. The full costs are already shown here including the overhead surcharge (if applicable).

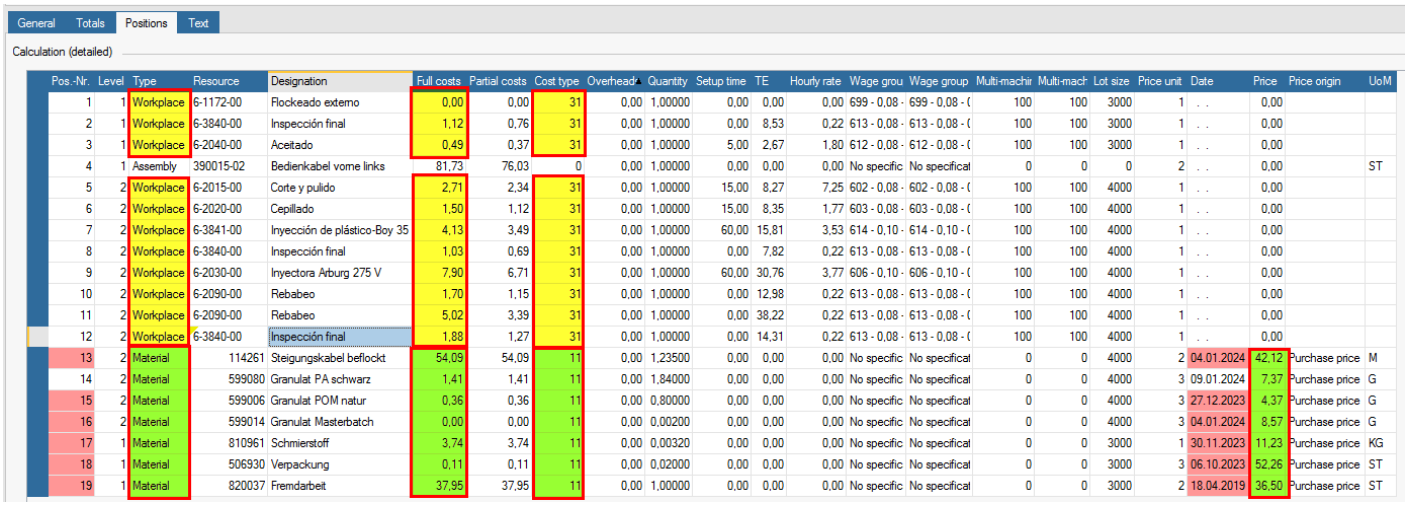
> If the work plan has several levels (screenshot = level >1), the calculation builds on each other, taking into account the scrap and the quantity used in the next level. This is done from bottom to top. However, the full costs displayed only relate to the item and cannot simply be totalled to recalculate something in Excel! Items at level 1 are allocated directly to the item to be costed; for items with a level number > 1, the costs are first allocated to the higher-level component.

General | Totals | Positions | Text

Calculation (detailed)

Pos.-Nr.	Level	Type	Resource	Designation	Full costs	Partial costs	Cost type	Overhead	Quantity	Setu
1	1	Workplace	6-1172-00	Flockeado externo	0,00	0,00	31	0,00	1,00000	
2	1	Workplace	6-3840-00	Inspección final	1,12	0,76	31	0,00	1,00000	
3	1	Workplace	6-2040-00	Aceitado	0,49	0,37	31	0,00	1,00000	
4	1	Assembly	390015-02	Bedienkabel vorne links	81,73	76,03	0	0,00	1,00000	
5	2	Workplace	6-2015-00	Corte y pulido	2,71	2,34	31	0,00	1,00000	
6	2	Workplace	6-2020-00	Cepillado	1,50	1,12	31	0,00	1,00000	
7	2	Workplace	6-3841-00	Inyección de plástico-Boy 35	4,13	3,49	31	0,00	1,00000	
8	2	Workplace	6-3840-00	Inspección final	1,03	0,69	31	0,00	1,00000	
9	2	Workplace	6-2030-00	Inyectora Arburg 275 V	7,90	6,71	31	0,00	1,00000	
10	2	Workplace	6-2090-00	Rebabeo	1,70	1,15	31	0,00	1,00000	
11	2	Workplace	6-2090-00	Rebabeo	5,02	3,39	31	0,00	1,00000	
12	2	Workplace	6-3840-00	Inspección final	1,88	1,27	31	0,00	1,00000	
13	2	Material	114261	Steigungskabel beflockt	54,09	54,09	11	0,00	1,23500	
14	2	Material	599080	Granulat PA schwarz	1,41	1,41	11	0,00	1,84000	
15	2	Material	599006	Granulat POM natur	0,36	0,36	11	0,00	0,80000	
16	2	Material	599014	Granulat Masterbatch	0,00	0,00	11	0,00	0,00200	
17	1	Material	810961	Schmierstoff	3,74	3,74	11	0,00	0,00320	
18	1	Material	506930	Verpackung	0,11	0,11	11	0,00	0,02000	
19	1	Material	820037	Fremdarbeit	37,95	37,95	11	0,00	1,00000	

In the Positions tab after the first master costing, you should check whether there is a time and a cost element in each operation, a purchase price and a cost element in the rows for material, and no cost element in the Assembly row.

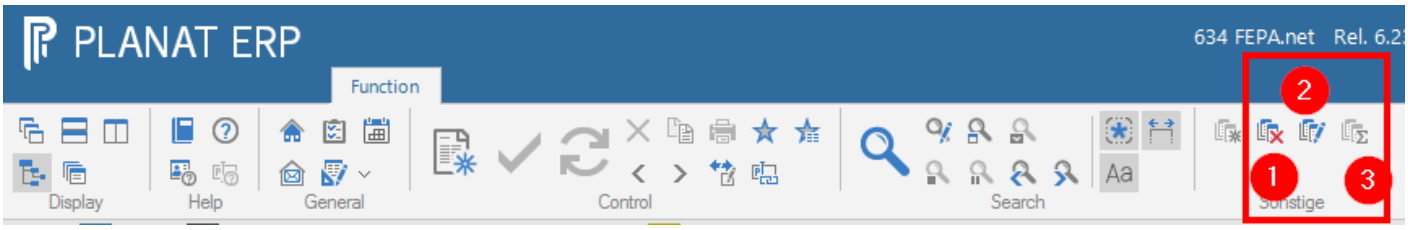


Pos.-Nr.	Level	Type	Resource	Designation	Full costs	Partial costs	Cost type	Overhead	Quantity	Setup time	TE	Hourly rate	Wage grou	Wage group	Multi-machi	Multi-machi	Lot size	Price unit	Date	Price	Price origin	UoM
1	1	Workplace	6-1172-00	Flockeado externo	0,00	0,00	31	0,00	1,00000	0,00	0,00	0,00	699 - 0,08 -	699 - 0,08 - (	100	100	3000	1	. .	0,00		
2	1	Workplace	6-3840-00	Inspección final	1,12	0,76	31	0,00	1,00000	0,00	8,53	0,22	613 - 0,08 -	613 - 0,08 - (	100	100	3000	1	. .	0,00		
3	1	Workplace	6-2040-00	Aceitado	0,49	0,37	31	0,00	1,00000	5,00	2,67	1,80	612 - 0,08 -	612 - 0,08 - (	100	100	3000	1	. .	0,00		
4	1	Assembly	390015-02	Bedienkabel vorne links	81,73	76,03	0	0,00	1,00000	0,00	0,00	0,00	No specific	No specifica	0	0	0	2	. .	0,00		ST
5	2	Workplace	6-2015-00	Corte y pulido	2,71	2,34	31	0,00	1,00000	15,00	8,27	7,25	602 - 0,08 -	602 - 0,08 - (	100	100	4000	1	. .	0,00		
6	2	Workplace	6-2020-00	Cepillado	1,50	1,12	31	0,00	1,00000	15,00	8,35	1,77	603 - 0,08 -	603 - 0,08 - (	100	100	4000	1	. .	0,00		
7	2	Workplace	6-3841-00	Inyección de plástico-Boy 35	4,13	3,49	31	0,00	1,00000	60,00	15,81	3,53	614 - 0,10 -	614 - 0,10 - (	100	100	4000	1	. .	0,00		
8	2	Workplace	6-3840-00	Inspección final	1,03	0,69	31	0,00	1,00000	0,00	7,82	0,22	613 - 0,08 -	613 - 0,08 - (	100	100	4000	1	. .	0,00		
9	2	Workplace	6-2030-00	Inyectora Arburg 275 V	7,90	6,71	31	0,00	1,00000	60,00	30,76	3,77	606 - 0,10 -	606 - 0,10 - (	100	100	4000	1	. .	0,00		
10	2	Workplace	6-2090-00	Rebabeo	1,70	1,15	31	0,00	1,00000	0,00	12,98	0,22	613 - 0,08 -	613 - 0,08 - (	100	100	4000	1	. .	0,00		
11	2	Workplace	6-2090-00	Rebabeo	5,02	3,39	31	0,00	1,00000	0,00	38,22	0,22	613 - 0,08 -	613 - 0,08 - (	100	100	4000	1	. .	0,00		
12	2	Workplace	6-3840-00	Inspección final	1,88	1,27	31	0,00	1,00000	0,00	14,31	0,22	613 - 0,08 -	613 - 0,08 - (	100	100	4000	1	. .	0,00		
13	2	Material	114261	Steigungskabel beflockt	54,09	54,09	11	0,00	1,23500	0,00	0,00	0,00	No specific	No specifica	0	0	4000	2	04.01.2024	42,12	Purchase price	M
14	2	Material	599080	Granulat PA schwarz	1,41	1,41	11	0,00	1,84000	0,00	0,00	0,00	No specific	No specifica	0	0	4000	3	09.01.2024	7,37	Purchase price	G
15	2	Material	599006	Granulat POM natur	0,36	0,36	11	0,00	0,80000	0,00	0,00	0,00	No specific	No specifica	0	0	4000	3	27.12.2023	4,37	Purchase price	G
16	2	Material	599014	Granulat Masterbatch	0,00	0,00	11	0,00	0,00200	0,00	0,00	0,00	No specific	No specifica	0	0	4000	3	04.01.2024	8,57	Purchase price	G
17	1	Material	810961	Schmierstoff	3,74	3,74	11	0,00	0,00320	0,00	0,00	0,00	No specific	No specifica	0	0	3000	1	30.11.2023	11,23	Purchase price	KG
18	1	Material	506930	Verpackung	0,11	0,11	11	0,00	0,02000	0,00	0,00	0,00	No specific	No specifica	0	0	3000	3	06.10.2023	52,26	Purchase price	ST
19	1	Material	820037	Fremdarbeit	37,95	37,95	11	0,00	1,00000	0,00	0,00	0,00	No specific	No specifica	0	0	3000	2	18.04.2019	36,50	Purchase price	ST

If a price for a material is missing in the cost estimate, it can be entered in the line in the items in the Price - matching the price unit column.
A TE (job time) for an operation can also be added. Cost elements can also be added or removed. In any case, after a correction in the Positions tab, the article must be recalculated using the [Create calculation with changed data(2)] button. The relevant department should then be

informed that the errors have been corrected so that the correct data is used for the next calculation.

If an surcharge is changed, the difference is immediately allocated to all subsequent lines according to the cost element structure.
The button [Save totals data of calculation(3)] is also activated. This allows you to save the change if you wish. The change is also saved if you save at the end when you close the calculation. After reopening this calculation, however, only the values in the full costs are still displayed. The percentage is no longer displayed in the Surcharge column!



Button:
1 = Delete existing calculation and create a new one (recalculate with the master data)
2 = Create calculation with changed data (for changes to position data)
3 = Save totals data of the calculation (for changes in totals data)

Abbreviations in column headings
If you click with the mouse in the relevant column, you will find a description of the abbreviation in the footer of the FEPA. e.g. TE = Job time

