

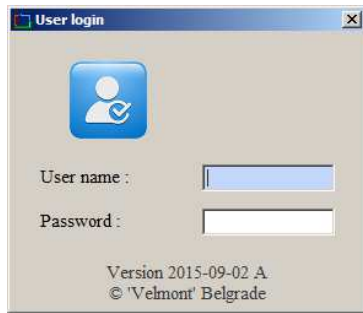
# ***KalPro***

- User Manual -

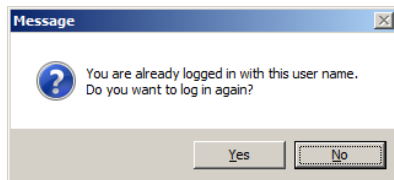
- August 2015 -



## User login for working in the software

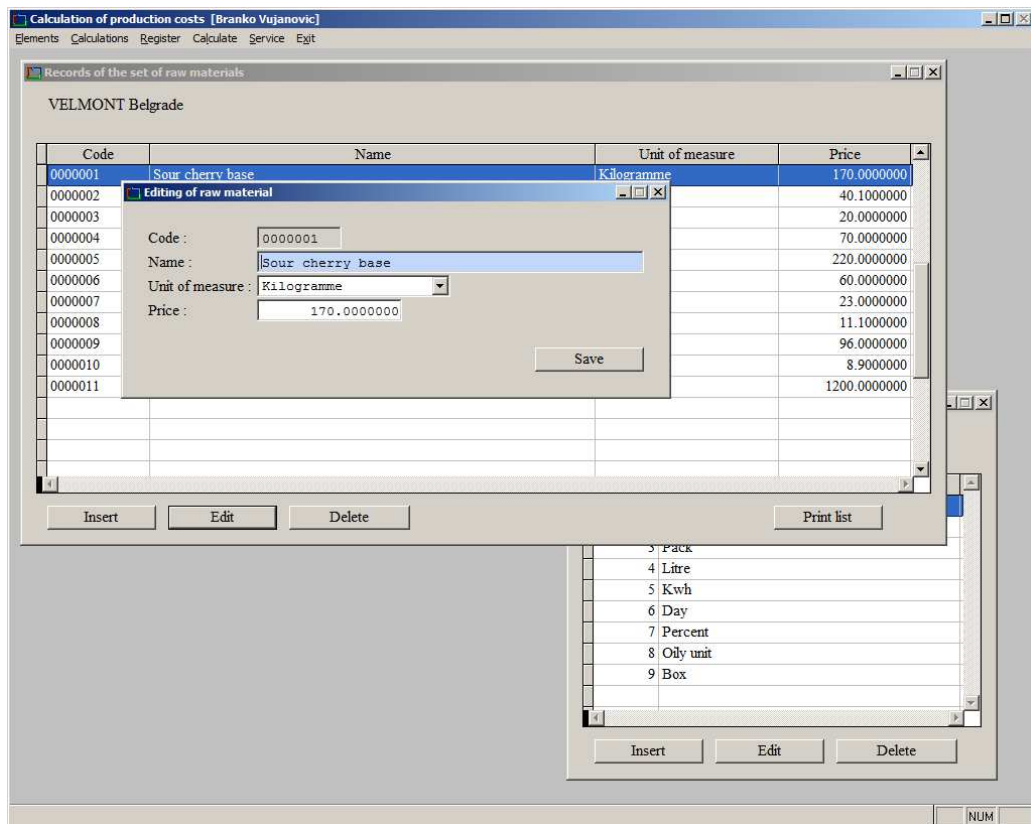


In order to launch the software module, you will need a unique username and password which are assigned to each operator. It has been set that no two operators with the same username can be present on the network. However, in case there is an irregular shut down of the software, your username will remain in use. In such event, when trying to relaunch the software, you will first need to unlock the username by logging in again, using the same username.



After entering the correct password, you will be able to use the software.

Name and surname of the operator are placed next to the software name. All the software functions can be selected from the menu by choosing the function you wish to use.



You can leave the software by clicking X in the top right corner, or by clicking 'Quit' in the menu. You can leave the software only after all active windows have been closed.

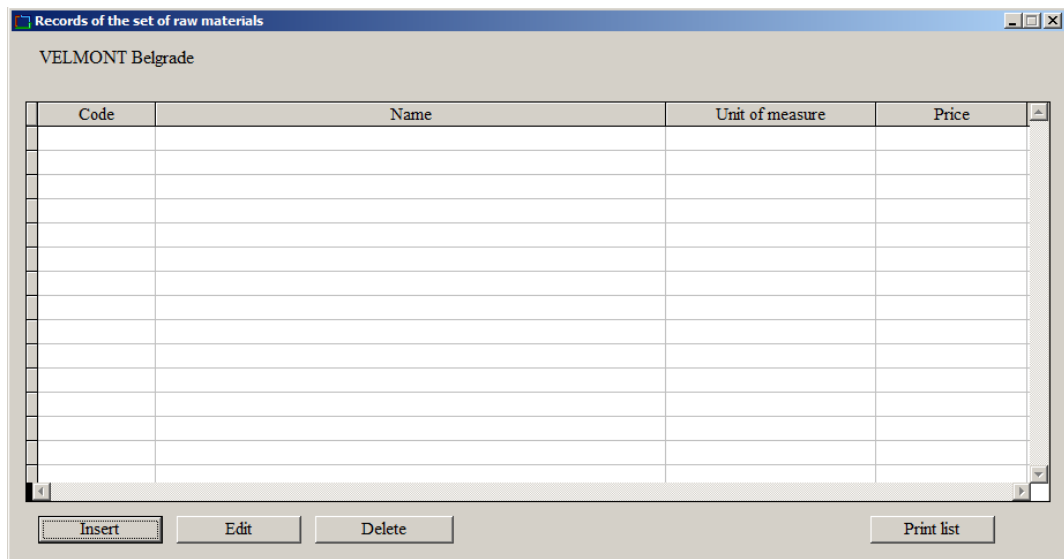


## Elements

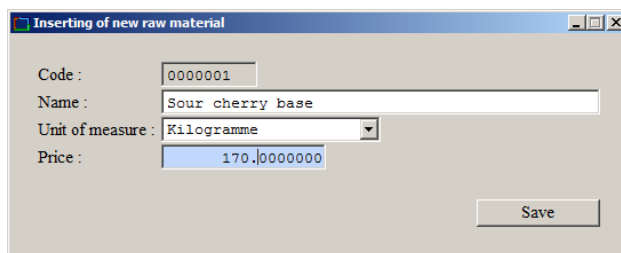


The 'real' independent elements consist of *raw materials*, *energies* and *fixed costs*. *Technological elements* and *semi-products* are not independent, as they are dependent on other factors, and as such require the development of the bill of material and the calculation.

## Raw materials



This is the basic set of raw materials. By using this function, you can form and maintain the table of raw materials. In the beginning of the work, none of the raw materials is inserted. In order to insert the raw material, press 'Insert' on the keyboard or click Insert.



The code of the element is the first to be entered. The code may be any combination of letters and numbers. We recommend that you use the numerical codes. The code must be unique for each raw material. Afterwards, you should enter the name, unit of measure and price. In case you are using the numerical codes, the next code will be automatically determined (the previous code + 1). To confirm inserting of the raw materials, click Save, and to cancel the inserting, press 'Esc' on the keyboard.

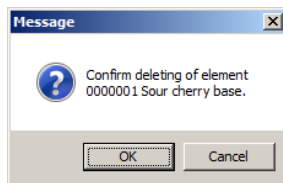
After the inserting of the required raw materials is complete, press 'Esc' on the keyboard, and you will be back on the screen displaying the set of raw materials. After all the raw materials from our example are inserted, the result is the following set:

Code	Name	Unit of measure	Price
0000001	Sour cherry base	Kilogramme	170.0000000
0000002	Sugar	Kilogramme	40.1000000
0000003	Nitric acid	Litre	20.0000000
0000004	Hydrogen peroxide	Kilogramme	70.0000000
0000005	LHL strip	Kilogramme	220.0000000
0000006	Detergent	Kilogramme	60.0000000
0000007	Caustic soda	Kilogramme	23.0000000
0000008	Juice box	Piece	11.1000000
0000009	Thermo-shrinkable film	Kilogramme	96.0000000
0000010	Tropicana foil 1/1	Pack	8.9000000
0000011	Small-grained salts	Kilogramme	1200.0000000

By pressing 'Enter' or clicking the 'Change' button, you may correct the listed raw materials.

You may change and amend all the data, except for the code of the raw materials. To confirm the change, click 'Save' button. If you decide not to update the data, you may leave the window by pressing 'Esc' on the keyboard. Changing the names or units of measure will automatically be followed by changing all the bills of materials in the sub-calculations and final calculations where this element is listed. In case there has been a change in price, it is required to perform the function 'Harmonising the calculations with the prices of independent elements', so that such change could be carried out in all the bills of materials in the sub-calculations and final calculations.

To remove the raw material from the list, you should press 'Delete' on the keyboard or click 'Delete'. The existing raw material may be deleted only in case it is not included in the bill of material of a technology, semi-product or final product.



By clicking 'OK', the element will be deleted. By clicking 'Cancel', you will cancel the deleting.

The raw materials from the set may be sorted in a number of ways. This is performed by clicking on the header of the appropriate column ('Code', 'Name' or 'Price'). Depending on the choice, the list of data on raw materials will be sorted in different ways. For instance, if you click on the header of the column 'Price', the list of raw materials will be sorted in price ascending order:

Records of the set of raw materials

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Code	Name	Unit of measure	Price
0000010	Tropicana foil 1/1	Pack	8.9000000
0000008	Juice box	Piece	11.1000000
0000003	Nitric acid	Litre	20.0000000
0000007	Caustic soda	Kilogramme	23.0000000
0000002	Sugar	Kilogramme	40.1000000
0000006	Detergent	Kilogramme	60.0000000
0000004	Hydrogen peroxide	Kilogramme	70.0000000
0000009	Thermo-shrinkable film	Kilogramme	96.0000000
0000001	Sour cherry base	Kilogramme	170.0000000
0000005	LHL strip	Kilogramme	220.0000000
0000011	Small-grained salts	Kilogramme	1200.0000000

Insert Edit Delete Print list

By clicking 'Print list', the list of raw materials will be printed out.

Report Designer - element.frx - Page 1

VELMONT Belgrade 04/09/2015 10:35:00

### List raw materials

Symbol	Code	Name	Unit of measure	Price
R	0000010	Tropicana foil 1/1	Pack	8.9000000
R	0000008	Juice box	Piece	11.1000000
R	0000003	Nitric acid	Litre	20.0000000
R	0000007	Caustic soda	Kilogramme	23.0000000
R	0000002	Sugar	Kilogramme	40.1000000
R	0000006	Detergent	Kilogramme	60.0000000
R	0000004	Hydrogen peroxide	Kilogramme	70.0000000
R	0000009	Thermo-shrinkable film	Kilogramme	96.0000000
R	0000001	Sour cherry base	Kilogramme	170.0000000
R	0000005	LHL strip	Kilogramme	220.0000000
R	0000011	Small-grained salts	Kilogramme	1200.0000000

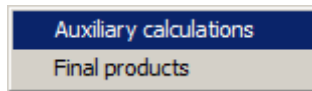
'Print Preview' window is the first to appear. Here you can preview the outlook of the printed document. By pressing 'PageUp' and 'PageDown', you can switch between pages, and by using the cursors, you can move within the page. By pressing 'Esc' you can cancel the printing, and to print the document, click on the printer icon. You will then be able to select the printer for printing the document.

The procedure is identical for other independent elements (energies and fixed costs). After inserting the energies and fixed costs from the example, the respective sets will appear as follows:





## Calculations



## Sub-calculations

Technological elements and semi-products are inserted into the sub-calculations.

Technologies and semi-products (sub-calculations)

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Calculations have been harmonised.

Symbol	Code	Name of sub-calculation	Unit of measure	Series	Cost price	Date
T	0000001	Water	Litre	850000	0.0035882	04/09/2015
T	0000002	Air	Litre	50000	0.0530000	04/09/2015
T	0000003	Transport of finished products	Litre	2500	4.3380000	04/09/2015
T	0000004	Steam	Kilogramme	90000	2.1520359	04/09/2015
T	0000005	CIP	Percent	100	164.7123934	04/09/2015

Buttons: Insert, Edit, Delete, Print list, Detailed calc., Calc. scheme

The formed set of sub-calculations may be sorted as per the code and name. This is performed by clicking on the appropriate column header. Technological elements and semi-products may be inserted into the sub-calculations. The work procedure is identical, and the only difference is that the technological elements are marked with a letter 'T', whereas the semi-products are marked with a letter 'P'. Both of these may appear as items in other technological elements, semi-products of final products.

You will first need to insert the appropriate sub-calculation. This will be explained following the example of the technological element 'Water' with a code T 0000001. In order to insert a new sub-calculation, press 'Insert' on the keyboard or click Insert.

Symbol / code : T / 0000001      Name : Water  
Unit of measure : Litre      Cost price : 0.0000000  
Date : 04/09/2015  
Calc. for the num. of units : 850000      Save

Insert - insert element, Enter - edit, Delete - delete

Symbol	Code	Name	Unit of measure	Quantity

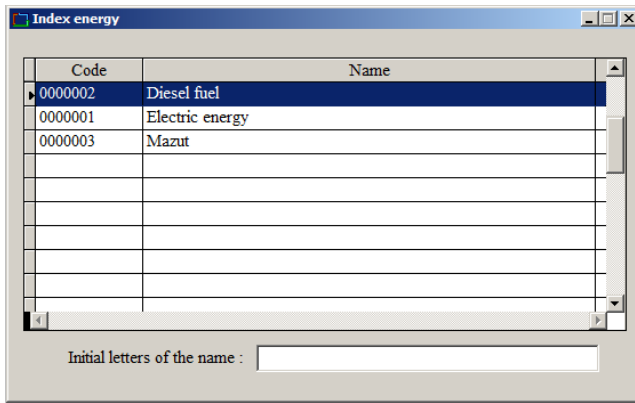
Insert the symbol 'T' and the code (in this case 0000001). The code must be unique in the set of sub-calculations and you will receive a warning if there is already a sub-calculation with the same code. After entering the symbol and the code, you will need to enter the common data for the sub-calculation. This includes the name, unit of measure, date (showing the last harmonisation of prices, and this data will automatically be updated after each harmonisation), size of the series, i.e. the number of units the calculation refers to. The field 'Cost price' will show the cost price per unit of measure. In this very case, the calculation is performed for 850,000 litres, which implies that the field 'Cost price' will show the price for one litre of water. After you enter these data and click 'Save', you can start inserting the items. The element is inserted in the bottom part of the screen, in the first field. For example, we can first insert electric energy. In the field Symbol, insert the letter 'E', and in the field Code, press F1. This button is used to open a help window in case you are not familiar with the code of the element you wish to insert.

Symbol / code : T / 0000001      Name : Water  
Unit of measure : Litre      Cost price : 0.0000000  
Date : 04/09/2015  
Calc. for the num. of units : 850000      Save

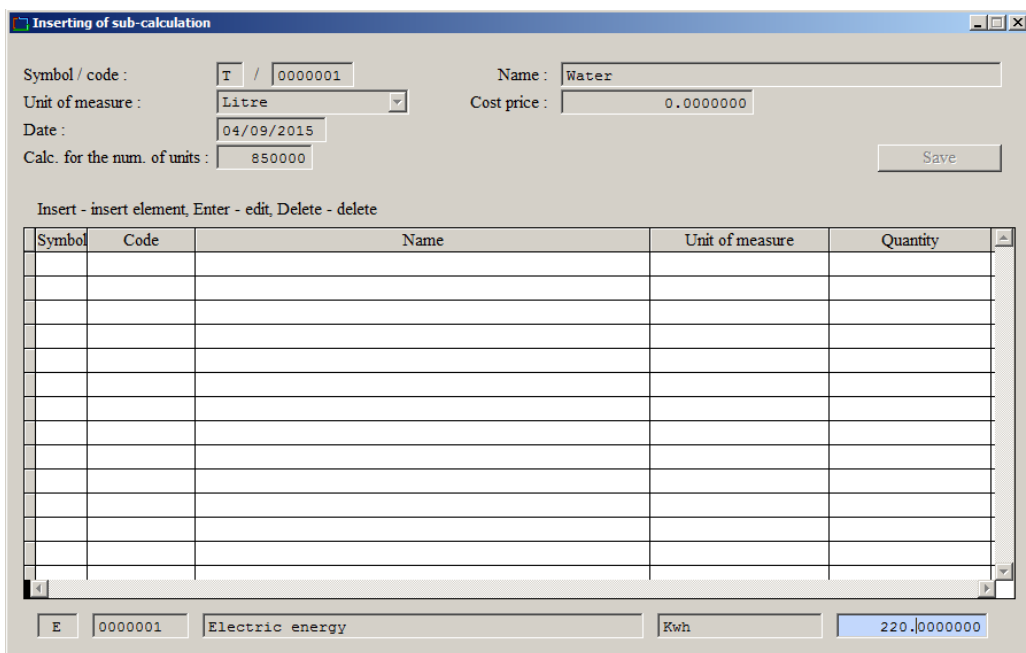
Insert - insert element, Enter - edit, Delete - delete

Symbol	Code	Name	Unit of measure	Quantity
E				

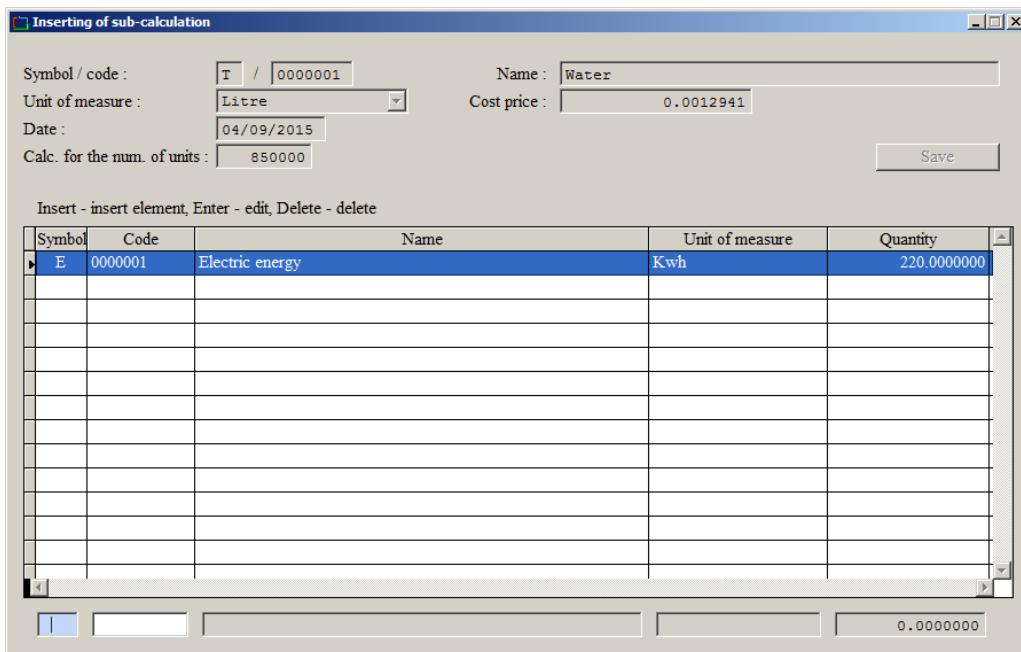
E      0.0000000



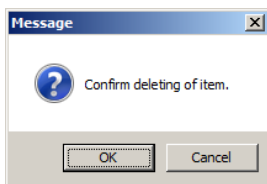
You will be given a list of all energies. Select the appropriate energy and press 'Enter'. This code will be shown in the field below. If you are sure you want to insert this particular energy, press 'Enter' again, or select some other energy.



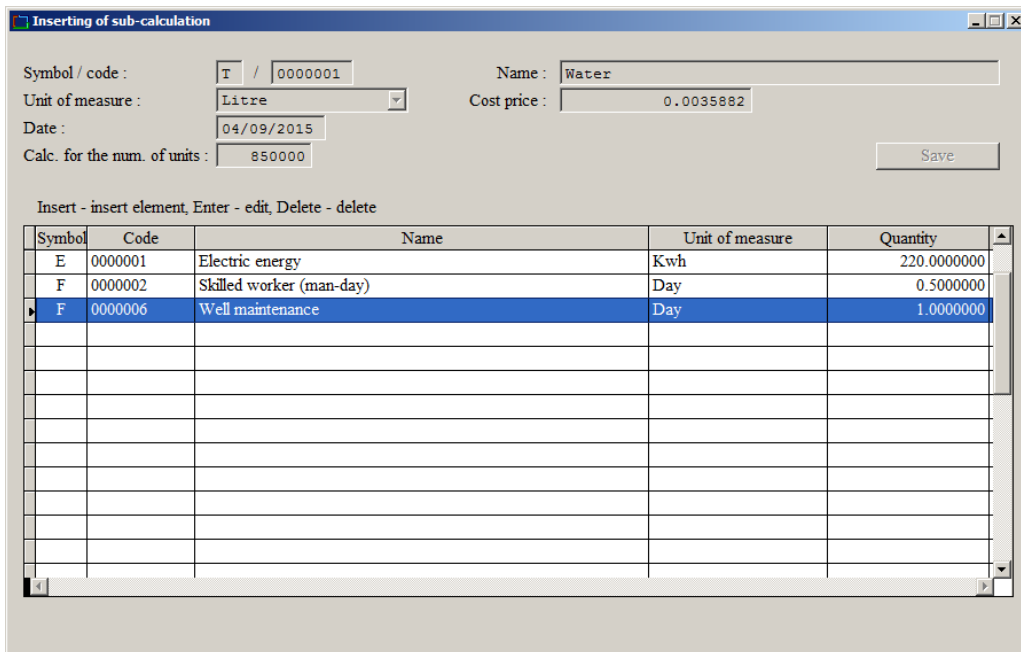
Finally, insert the quantity and press 'Enter'. The energy will be transferred to the list of items. In this particular example, this implies that producing 850,000 litres of water requires 220 Kwh of electric energy. The same applies to all the other elements required for this technology.



It is possible to delete all the items and change their quantities. This is performed by clicking on the specific item and pressing 'Enter' to change it, or 'Delete' to remove it. Before deleting, you will be asked to confirm the delete action. You can click 'OK' to confirm it, or cancel deleting.

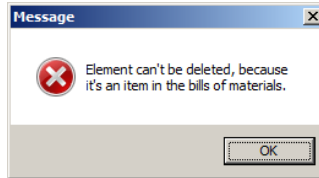


Insert other items which are in the bill of material for the technological element 'Water'. After all the items have been inserted, press 'Esc', to finish the work on this technology.



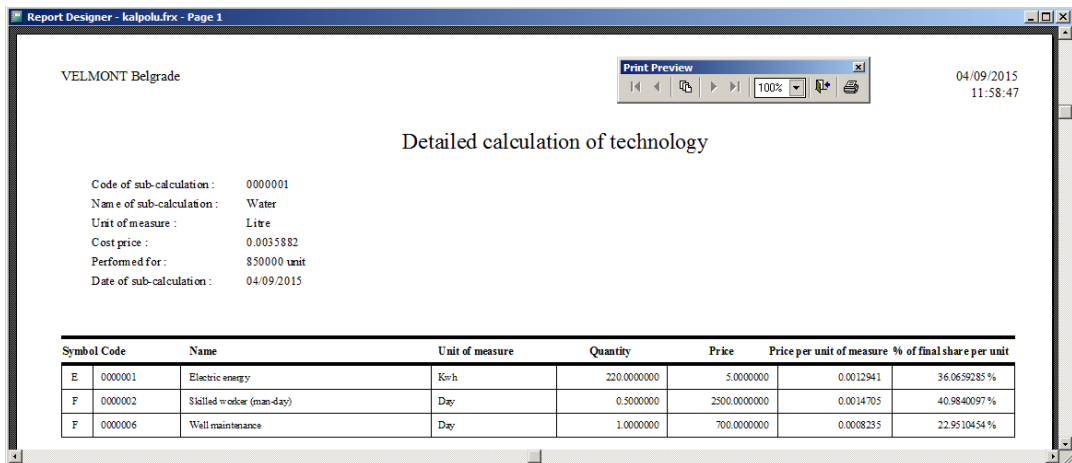
When you define a set of sub-calculations, you will then be able to perform the following operations:

- Change - Changing the general data on the sub-calculation and its items.
- Delete - Deleting the sub-calculation. This can be done only if the calculation does not appear as an item in other sub-calculations or in some final calculation. If you attempt to delete such calculation, a message will appear informing you that deleting is not possible.



To delete the sub-calculation, you need to delete all its appearances as an item, and then delete the calculation.

- Print list - Printing the list of all sub-calculations.
- Detailed calculation - Printing the detailed calculation showing the general data on the sub-calculation and all of its items. The following parameters are shown for each item:
  - Symbol
  - Code
  - Name
  - Unit of measure
  - Quantity in the given sub-calculation
  - Price (price per unit of measure)
  - Cost per unit of measure (share in the price per unit of measure of the sub-calculation)
  - % of final share in the price per unit of measure (of the sub-calculation)



- Calculation scheme - Printing the detailed scheme of the sub-calculation showing all the elements participating in the bill of material for the given sub-calculation.

Scheme of the sub-calculation for the technology 'CIP':

Report Designer - kalpolus.frx - Page 1

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### Schema of technology

Code of technology: 0000005  
 Name of technology: CIP  
 Unit of measure: Percent  
 Cost price: 164.7123934  
 Performed for: 100 unit  
 Date of sub-calculation: 04/09/2015

	Quantity	Unit of measure
E 0000001 Electric energy	75.0000000	Kwh
F 0000002 Skilled worker (man-day)	2.5000000	Day
F 0000017 Maintenance of CIP (device)	1.0000000	Day
F 0000018 Depreciation for CIP (device)	1.0000000	Day
R 0000003 Nitric acid	40.0000000	Litre
R 0000007 Caustic soda	55.0000000	Kilogramme
T 0000001 Water	30000.0000000	Litre
E 0000001 Electric energy		
F 0000002 Skilled worker (man-day)		
F 0000006 Well maintenance		
T 0000002 Air	1100.0000000	Litre
E 0000001 Electric energy		
F 0000002 Skilled worker (man-day)		
F 0000007 Maintenance and parts for air		
F 0000008 Depreciation for air (for the plant)		
T 0000004 Steam	2600.0000000	Kilogramme
E 0000001 Electric energy		
E 0000003 Mazut		
F 0000002 Skilled worker (man-day)		
F 0000015 Maintenance and parts for steam		
F 0000016 Depreciation for steam (device)		
R 0000011 Small-grained salts		
T 0000001 Water		
E 0000001 Electric energy		
F 0000002 Skilled worker (man-day)		
F 0000006 Well maintenance		

For the remaining technologies from the example, the inserting procedure is similar (other elements are inserted). After all the required technologies have been inserted from our example, the set will appear as follows:

Technologies and semi-products (sub-calculations)

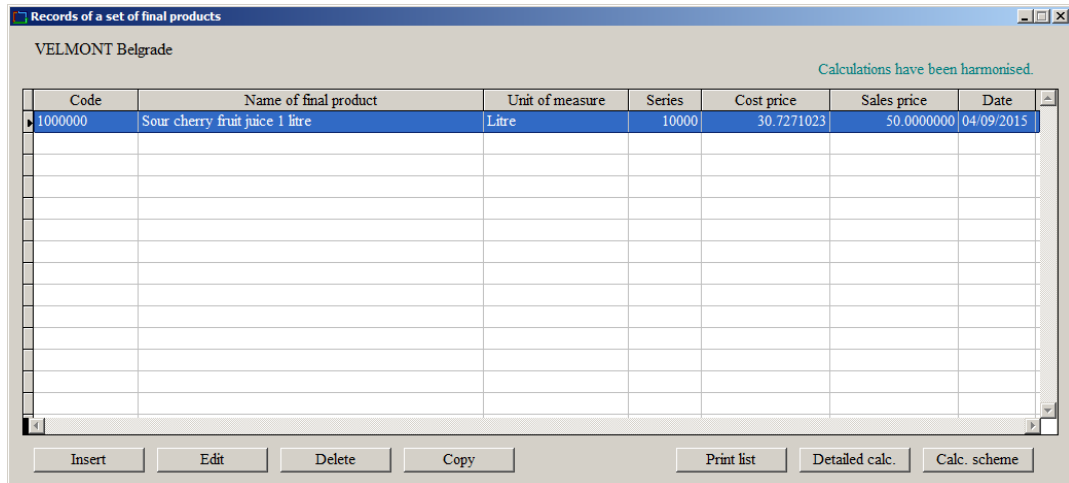
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Calculations have been harmonised.

Symbol	Code	Name of sub-calculation	Unit of measure	Series	Cost price	Date
T	0000001	Water	Litre	850000	0.0035882	04/09/2015
T	0000002	Air	Litre	50000	0.0530000	04/09/2015
T	0000003	Transport of finished products	Litre	2500	4.3380000	04/09/2015
T	0000004	Steam	Kilogramme	90000	2.1520359	04/09/2015
T	0000005	CIP	Percent	100	164.7123934	04/09/2015

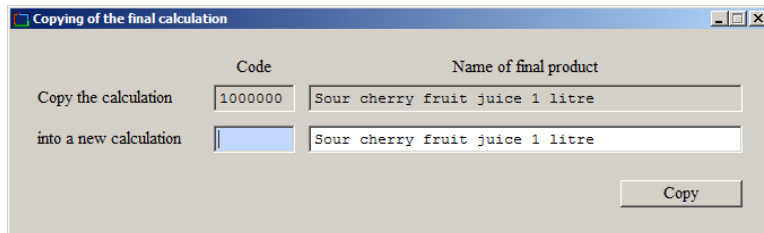
Buttons: Insert, Edit, Delete, Print list, Detailed calc., Calc. scheme

## Final calculations



The window for working with final calculations (final products) features the similar functions and reports as the ones existing in the sub-calculations. A function Copy has been added allowing you to copy a final calculation into a new final calculation. The practical purpose of this function is to facilitate the development of the new calculations which will be based on the existing ones, but followed with the changes in items or series the final calculation is performed for.

By pressing 'K' on the keyboard or clicking 'Copy' you will launch the function for copying the calculation. You need to define the code and name for the new calculation. It is possible to retain the existing name, but it is advisable to amend the name so you could recognise it.



Regarding the code, it is recommended to reserve the first four digits for the final calculation, and use the remaining three digits for different versions of that calculation. For instance, if the main code is 1000, then you could make the sub-codes 001, 002, 003.



Inserting the common data and items from the bill of material for the final calculations is generally the same as inserting the sub-calculation, and therefore does not require further explanations. The common data also require inserting the sales price, so that it is possible to calculate the difference between the cost and sales price. This difference is shown when the detailed calculation for the final product is printed out.

**Editing of final calculation**

Code of fin. prod. : 1000000      Name : Sour cherry fruit juice 1 litre  
 Unit of measure : Litre      Cost price : 30.7271023  
 Date : 04/09/2015      Sales price : 50.0000000  
 Calc. for the num. of units : 10000      Save

Insert - insert element, Enter - edit, Delete - delete

Symbol	Code	Name	Unit of measure	Quantity
E	0000001	Electric energy	Kwh	150.0000000
F	0000001	Semi-skilled worker (man-day)	Day	5.0000000
F	0000002	Skilled worker (man-day)	Day	5.0000000
F	0000003	Maint. and parts of sterile prod. line	Day	1.0000000
F	0000004	Depreciation of sterile prod. line	Day	1.0000000
F	0000005	Overhead costs	Litre	10000.0000000
R	0000001	Sour cherry base	Kilogramme	400.0000000
R	0000002	Sugar	Kilogramme	850.0000000
R	0000003	Nitric acid	Litre	20.0000000
R	0000004	Hydrogen peroxide	Kilogramme	10.0000000
R	0000005	LHL strip	Kilogramme	8.0000000
R	0000006	Detergent	Kilogramme	5.0000000
R	0000007	Caustic soda	Kilogramme	20.0000000
R	0000008	Juice box	Piece	1700.0000000

We will provide the example of detailed calculation and the detailed calculation scheme separately for the final calculations.

Report Designer - kalpro.frx - Page 1

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Print Preview

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### Detailed calculation of the final product

Code of the final product : 1000000  
 Name of the final product : Sour cherry fruit juice 1 litre  
 Unit of measure : Litre  
 Cost price : 30.7271023  
 Performed for : 10000 unit  
 Date of the final product : 04/09/2015

Symbol Code	Name	Unit of measure	Quantity	Price	Price per unit of measure	% of final share per unit
E	0000001	Electric energy	Kwh	150.0000000	5.0000000	0.0750000
F	0000001	Semi-skilled worker (man-day)	Day	5.0000000	1500.0000000	0.7500000
F	0000002	Skilled worker (man-day)	Day	5.0000000	2500.0000000	1.2500000
F	0000003	Maint. and parts of sterile prod. line	Day	1.0000000	1500.0000000	0.1500000
F	0000004	Depreciation of sterile prod. line	Day	1.0000000	1500.0000000	0.1500000
F	0000005	Overhead costs	Litre	10000.0000000	1.5000000	4.8816839
R	0000001	Sour cherry base	Kilogramme	400.0000000	170.0000000	6.8000000
R	0000002	Sugar	Kilogramme	850.0000000	40.1000000	3.4085000
R	0000003	Nitric acid	Litre	20.0000000	20.0000000	0.6400000
R	0000004	Hydrogen peroxide	Kilogramme	10.0000000	70.0000000	0.0700000
R	0000005	LHL strip	Kilogramme	8.0000000	220.0000000	0.1760000
R	0000006	Detergent	Kilogramme	5.0000000	60.0000000	0.0300000
R	0000007	Caustic soda	Kilogramme	20.0000000	23.0000000	0.0460000
R	0000008	Juice box	Piece	1700.0000000	11.1000000	1.8870000
R	0000009	Thermo-shrinkable film	Kilogramme	80.0000000	96.0000000	0.7680000

Page 1

Report Designer - kalpro.frx - Page 2

Symbol Code	Name	Unit of measure	Quantity	Price	Price per unit of measure	% of final share per unit
R 0000010	Tropicana foil 1/1	Pack	10200.0000000	8.9000000	9.0780000	29.5439508 %
T 0000001	Water	Litre	10000.0000000	0.0035882	0.0035882	0.0116776 %
T 0000002	Air	Litre	2000.0000000	0.0530000	0.0106000	0.0344972 %
T 0000003	Transport of finished products	Litre	10000.0000000	4.3380000	4.3380000	14.1178298 %
T 0000004	Steam	Kilogramme	530.0000000	2.1520559	0.1140579	0.3711964 %
T 0000005	CIP	Percent	5.0000000	164.7123934	0.0823561	0.2680246 %

Sales price : 50.0000000  
 Cost price : 30.7271023  
 Difference per unit : 19.2728977  
 Total difference (per series) : 192728.9770000

Page 2

Final calculation scheme for 'Sour cherry juice 1/1':

Report Designer - kalpro.frx - Page 1

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Print Preview 04/09/2015 12:13:19

Scheme of the bill of material for the final product

Code of the final product : 1000000  
 Name of the final product : Sour cherry fruit juice 1 litre  
 Unit of measure : Litre  
 Performed for : 10000 unit  
 Date of the final product : 04/09/2015  
 Sales price : 50.0000000  
 Cost price : 30.7271023  
 Difference per unit : 19.2728977  
 Total difference (per series) : 192728.9770000

	Quantity	Unit of measure
E 0000001 Electric energy	150.0000000	Kwh
F 0000001 Semi-skilled worker (man-day)	5.0000000	Day
F 0000002 Skilled worker (man-day)	5.0000000	Day
F 0000003 Maint. and parts of sterile prod. line	1.0000000	Day
F 0000004 Depreciation of sterile prod. line	1.0000000	Day
F 0000005 Overhead costs	10000.0000000	Litre
R 0000001 Sour cherry base	400.0000000	Kilogramme
R 0000002 Sugar	850.0000000	Kilogramme
R 0000003 Nitric acid	20.0000000	Litre
R 0000004 Hydrogen peroxide	10.0000000	Kilogramme
R 0000005 LHL strip	8.0000000	Kilogramme
R 0000006 Detergent	5.0000000	Kilogramme
R 0000007 Caustic soda	20.0000000	Kilogramme
R 0000008 Juice box	1700.0000000	Piece
R 0000009 Thermo-shrinkable film	80.0000000	Kilogramme
R 0000010 Tropicana foil 1/1	10200.0000000	Pack
T 0000001 Water	10000.0000000	Litre

Page 1

Report Designer - kalpros.frx - Page 2

	Quantity	Unit of measure
E 0000001 Electric energy	2.5882353	Kwh
F 0000002 Skilled worker (man-day)	0.0058824	Day
F 0000006 Well maintenance	0.0117647	Day
T 0000002 Air	2000.0000000	Litre
E 0000001 Electric energy	8.8000000	Kwh
F 0000002 Skilled worker (man-day)	0.0160000	Day
F 0000007 Maintenance and parts for air	0.0400000	Day
F 0000008 Depreciation for air (for the plant)	0.0400000	Day
T 0000003 Transport of finished products	10000.0000000	Litre
E 0000002 Diesel fuel	140.0000000	Litre
F 0000001 Semi-skilled worker (man-day)	6.0000000	Day
F 0000002 Skilled worker (man-day)	6.0000000	Day
F 0000009 Spare parts for transport	4.0000000	Day
F 0000010 Depreciation for the vehicles	4.0000000	Day
F 0000011 Vehicle tyres	4.0000000	Day
F 0000012 Protect. equip. for transp. worker	12.0000000	Day
F 0000013 Vehicle registration	4.0000000	Day
F 0000014 Per diems for business trips	2.0000000	Day
T 0000004 Steam	530.0000000	Kilogramme
E 0000001 Electric energy	1.9433333	Kwh
E 0000003 Mazut	17.3722222	Kilogramme
F 0000002 Skilled worker (man-day)	0.0235556	Day
F 0000015 Maintenance and parts for steam	0.0058889	Day
F 0000016 Depreciation for steam (device)	0.0058889	Day
R 0000011 Small-grained salts	0.5888889	Kilogramme
T 0000001 Water	382.7777778	Litre
E 0000001 Electric energy	0.0990719	Kwh
F 0000002 Skilled worker (man-day)	0.0002252	Day
F 0000006 Well maintenance	0.0004503	Day
T 0000005 CIP	5.0000000	Percent
E 0000001 Electric energy	3.7500000	Kwh
F 0000002 Skilled worker (man-day)	0.1250000	Day
F 0000017 Maintenance of CIP (device)	0.0500000	Day
F 0000018 Depreciation for CIP (device)	0.0500000	Day
R 0000003 Nitric acid	2.0000000	Litre
R 0000007 Caustic soda	2.7500000	Kilogramme

Page 2

Report Designer - kalpros.frx - Page 3

	Quantity	Unit of measure
T 0000001 Water	1500.0000000	Litre
E 0000001 Electric energy	0.3882353	Kwh
F 0000002 Skilled worker (man-day)	0.0008824	Day
F 0000006 Well maintenance	0.0017647	Day
T 0000002 Air	55.0000000	Litre
E 0000001 Electric energy	0.2420000	Kwh
F 0000002 Skilled worker (man-day)	0.0004400	Day
F 0000007 Maintenance and parts for air	0.0011000	Day
F 0000008 Depreciation for air (for the plant)	0.0011000	Day
T 0000004 Steam	130.0000000	Kilogramme
E 0000001 Electric energy	0.4766667	Kwh
E 0000003 Mazut	4.2611111	Kilogramme
F 0000002 Skilled worker (man-day)	0.0057778	Day
F 0000015 Maintenance and parts for steam	0.0014444	Day
F 0000016 Depreciation for steam (device)	0.0014444	Day
R 0000011 Small-grained salts	0.1444444	Kilogramme
T 0000001 Water	93.8888889	Litre
E 0000001 Electric energy	0.0243007	Kwh
F 0000002 Skilled worker (man-day)	0.0000552	Day
F 0000006 Well maintenance	0.0001105	Day

Page 3

At the end of the report, the overall needs are presented and these are stated through the independent elements: energies, fixed costs and raw materials, which are directly involved in manufacturing the final product or indirectly, by participating in manufacturing of the technologies or semi-products used for manufacturing of the final product.

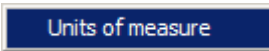
If we observe, for example, the energy **E 0000001 Electric energy**, this element appears as an item:

- directly in this final product
- in the technology 'Water'
- in the technology 'Air'
- in the technology 'Steam'
- in the technology 'CIP'

Within the overall needs, however, energy is presented as a single item. This implies that manufacturing of 10,000 litres of 'Sour cherry juice 1/1' requires the consumption of a total of 168.3118432 KWh of electric energy.

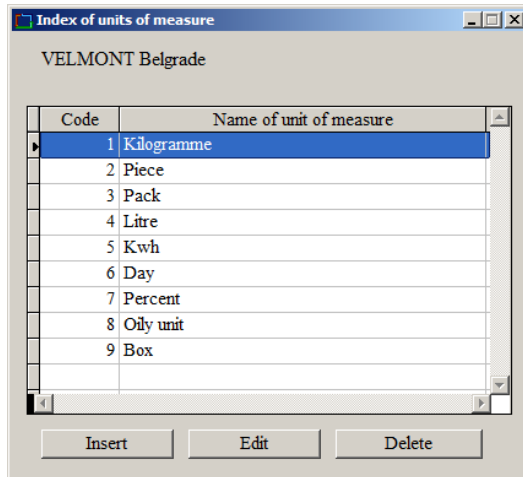
Symbol	Code	Name	Unit of measure	Price	Quantity
E	0000001	Electric energy	Kwh	5.0000000	168.3118432
E	0000002	Diesel fuel	Litre	65.0000000	140.0000000
E	0000003	Mazut	Kilogramme	20.0000000	21.6333333
F	0000001	Semi-skilled worker (man-day)	Day	1500.0000000	11.0000000
F	0000002	Skilled worker (man-day)	Day	2500.0000000	11.1778186
F	0000003	Maint. and parts of sterile prod. line	Day	1500.0000000	1.0000000
F	0000004	Depreciation of sterile prod. line	Day	1500.0000000	1.0000000
F	0000005	Overhead costs	Litre	1.5000000	10000.0000000
F	0000006	Well maintenance	Day	700.0000000	0.0140902
F	0000007	Maintenance and parts for air	Day	350.0000000	0.0411000
F	0000008	Depreciation for air (for the plant)	Day	200.0000000	0.0411000
F	0000009	Spare parts for transport	Day	400.0000000	4.0000000
F	0000010	Depreciation for the vehicles	Day	1500.0000000	4.0000000
F	0000011	Vehicle tyres	Day	400.0000000	4.0000000
F	0000012	Protect. equip. for transp. worker	Day	40.0000000	12.0000000
F	0000013	Vehicle registration	Day	50.0000000	4.0000000
F	0000014	Per diems for business trips	Day	200.0000000	2.0000000
F	0000015	Maintenance and parts for steam	Day	1000.0000000	0.0073333
F	0000016	Depreciation for steam (device)	Day	1800.0000000	0.0073333
F	0000017	Maintenance of CIP (device)	Day	320.0000000	0.0500000
F	0000018	Depreciation for CIP (device)	Day	1700.0000000	0.0500000
R	0000001	Sour cherry base	Kilogramme	170.0000000	400.0000000
R	0000002	Sugar	Kilogramme	40.1000000	850.0000000
R	0000003	Nitric acid	Litre	20.0000000	22.0000000
R	0000004	Hydrogen peroxide	Kilogramme	70.0000000	10.0000000
R	0000005	LHL strip	Kilogramme	220.0000000	8.0000000
R	0000006	Detergent	Kilogramme	60.0000000	5.0000000
R	0000007	Caustic soda	Kilogramme	23.0000000	22.7500000
R	0000008	Juice box	Piece	11.1000000	1700.0000000
R	0000009	Thermo-shrinkable film	Kilogramme	96.0000000	80.0000000
R	0000010	Tropicana foil 1/1	Pack	8.9000000	10200.0000000
R	0000011	Small-grained salts	Kilogramme	1200.0000000	0.7333333

## Registers

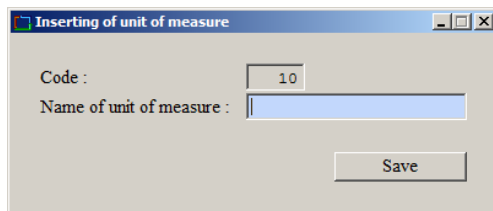


### Units of measure

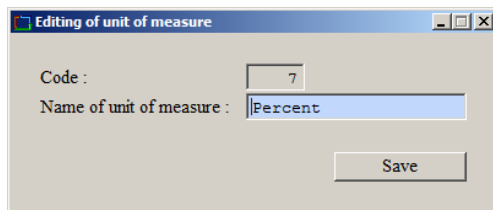
Each element, sub-calculation and final calculation is assigned a unit of measure.



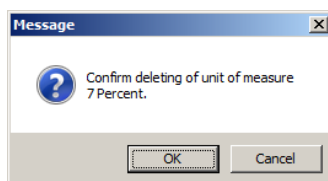
A new unit of measure is assigned by pressing 'Insert' or clicking "Insert". The numerical code is entered and the name of the unit of measure. By clicking 'Save', the inserted unit is saved, and pressing 'Esc' cancels the insert action.



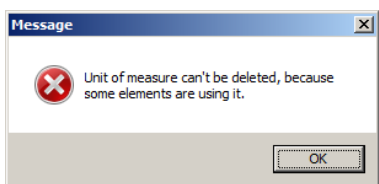
If required, the name of each unit of measure may be changed. This is performed by selecting the desired unit of measure and pressing 'Enter' or clicking 'Change'.



Incorrectly inserted unit of measure may be deleted. This is performed by selecting the desired unit of measure and pressing 'Delete' or clicking 'Delete'. You will be asked to confirm the delete action.



Deleting is possible only for the unit of measure which has not been assigned to any element, sub-calculation or final calculation.



## Calculate

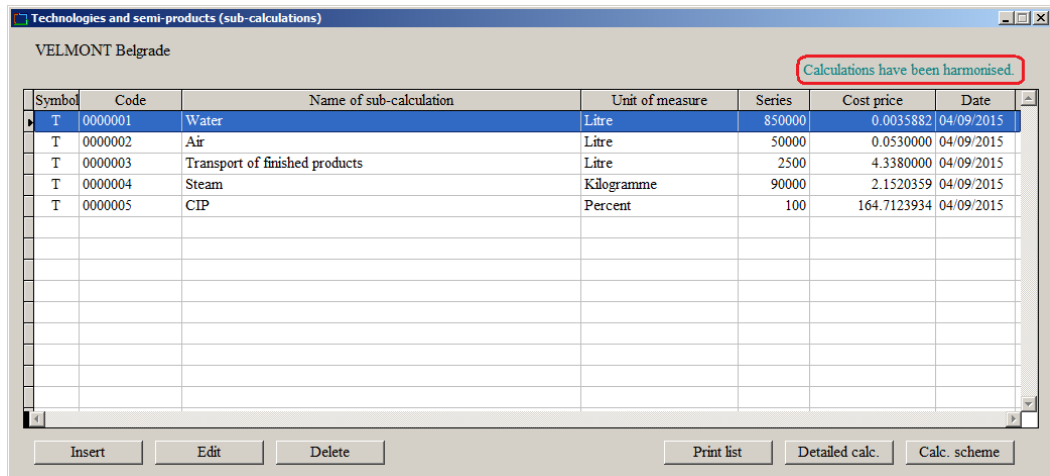
Harmonising the calculations with the prices of independent elements

### Harmonising the calculations with the prices of independent elements

This function is performed when you have changed the price of an independent element (raw materials, energy or fixed costs) or when you have changed the calculation for a technology or semi-product.

Performing this function is required, as the automatic management of changes is possible to a certain extent, and will not include all the sub-calculations and final calculations. Automatic harmonisation would significantly slow down the software functioning. Therefore, this function was developed as external and should be activated when there have been changes in the prices of independent elements, series or items in sub-calculations. **This means that after you perform all the necessary changes (in prices, series, bills of materials...), and before creating the report, you should perform this function only once!**

In the windows displaying the list of sub-calculations or the list of final calculations, the top right corner will display a message on whether the harmonisation of calculations with the prices of independent elements is required.



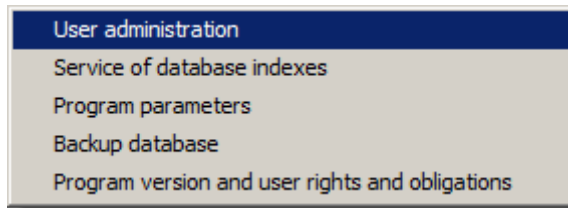
If the message reads 'Calculations have been harmonised', this means that the calculations have been harmonised and there is no need to perform this function. If the message reads 'Calculations have not been harmonised', it means that before printing the report or using the data on the product cost price, you should perform this function.

The essence of the work performed through this application is to state each final product through the items of its bill of material. Items may be complex and further stated through the items of their bill of material. This chain depends on the complexity of the technology of manufacturing the final product, and may be of a significantly large scale. Ultimately, everything depends on the prices of independent elements (raw materials, energies and fixed costs), bearing in mind that these independent elements are found in a large number of levels. **Performing the process of cost calculation requires implementing the specific arithmetic principles and functions which are inherently complex and require some time. This time depends on the complexity of calculations (the depth) and the computer performance.**

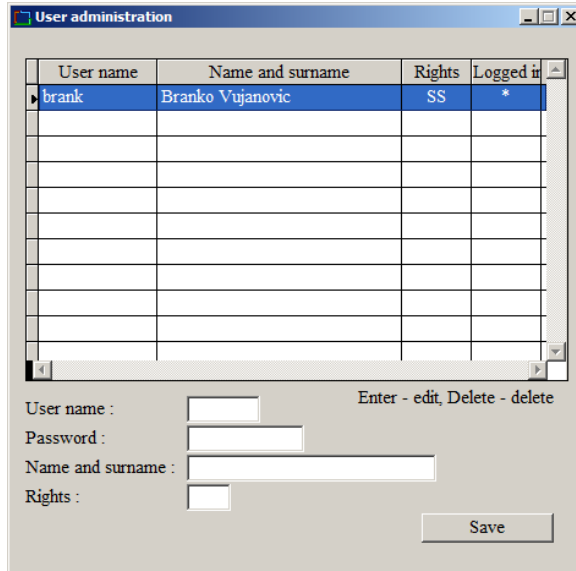




## Service



## User administration

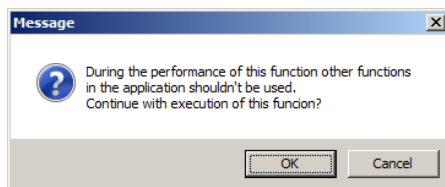


This function is used to assign the new user rights and regulate the rights of existing users. The following is determined for each user:

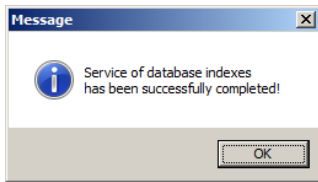
- Username
- Password
- Name and surname
- Rights (SS- user has all the rights; " " (empty) means that the user only has the right to activate the reports in the software)

## Service of the database index

This function is used to correct the database indexes. Typically, the need for performing this function will probably never appear during the work. In case certain irregularity in the data is identified, then it is required to perform this function.

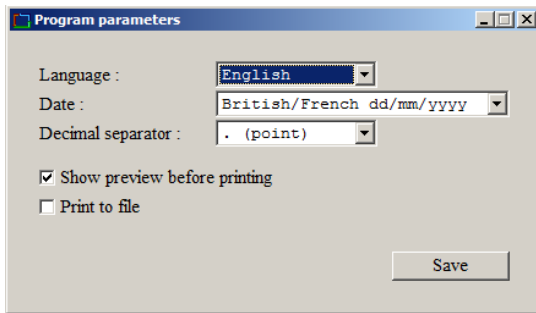


Click "OK" and wait until the function operations are finished.



After the successful completion of the function operations, the software will notify you thereof. Click 'OK' and you may continue your work.

### Software parameters



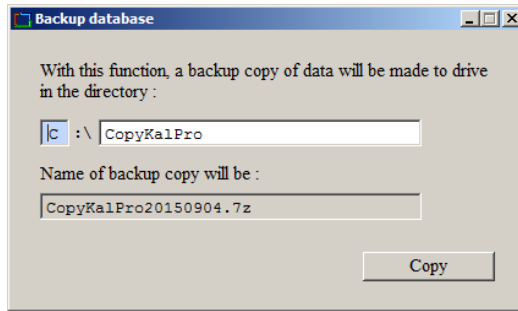
You can choose the language of the software in the drop-down menu 'Language'. You can choose between Serbian or English. In the menu 'Date' you can select the date format, and in the menu 'Decimal separator', you can choose the symbol for the decimal separator. You can choose between the point or comma for this option.

If you wish to have a preview of the material intended for printing, select the appropriate option: 'Show preview when printing'. You can also choose to do all the printing in the simple TXT file, by selecting the option: "Print into the file". In this case, when printing, the following files will be created in the software working directory:

Programme / Function	File name
Elements / Print list	ElementsList.txt
Sub-calculations / Print list	SubcalculationList.txt
Sub-calculations / Detailed calculation	SubCalculation.txt
Sub-calculations / Calculation scheme	SubCalculationScheme.txt
Final calculations / Print list	FinalProductsList.txt
Final calculations / Detailed calculation	FinalCalculation.txt
Final calculations / Calculation scheme	FinalCalculationScheme.txt

All the settings are saved by clicking on 'Save'. If you wish to cancel the settings, quit by pressing 'Esc'.

## Backup database

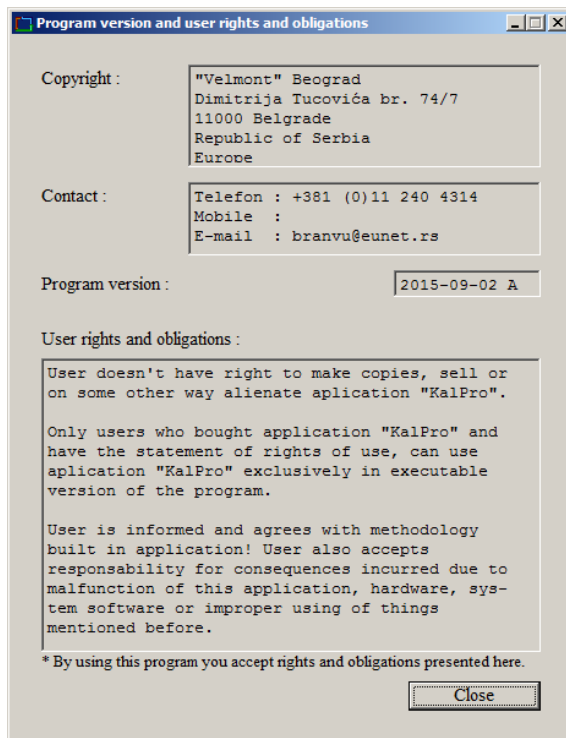


This function is used for making a copy of the existing status of the database. The database copy will be assigned a name containing the initial part of the name 'CopyKalPro' and the current date on the computer (yyyymmdd). The copy will be stored in the directory C:\CopyKalPro. The name of the directory can be changed as desired. If the selected directory does not exist, a new one will be created, and the database copy will be stored in it.

For making a database copy, a free software 7za.exe is used (<http://www.7-zip.org/>).

## Software version and terms and conditions

This part defines the rights and obligations of the application users.





**Contents**

User login for working in the software	2
Elements	4
Raw materials	4
Energies	7
Fixed costs	7
Calculations	8
Sub-calculations	8
Final calculations	15
Registers	20
Units of measure	20
Calculate	22
Harmonising the calculations with the prices of independent elements	22
Service	24
User administration	24
Service of the database index	24
Software parameters	25
Database copy	26
Software version and terms and conditions	26