

- User Manual -

User login for working in the software

📋 User login	×
User name :	
Password :	
	2015-09-02 A 10nt' Belgrade

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.

Message		×
?	You are already logged in with this user name. Do you want to log in again?	
	Yes No	Number of the second se

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.

Code			
	Name	Unit of measure	Price
000001	Sour cherry base	Kilogramme	170.0000000
	Editing of raw material		40.1000000
000003			20.000000
000004	Code: 0000001		70.000000
00005	Name: Sour cherry base		220.0000000
000006	Unit of measure : Kilogramme 🔹		60.000000
000007	Price : 170.000000		23.0000000
80000	1		11.1000000
000009		1	96.000000
000010		Save	8.9000000
000011			1200.0000000
Insert	Edit Delete		Print list
		3 Pack	
		4 Litre	
		4 Litre 5 Kwh	
		5 Kwh	
		5 Kwh 6 Day	
		5 Kwh 6 Day 7 Percent	
		5 Kwh 6 Day 7 Percent 8 Oily unit	

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

Raw materials	
Energies	
Fixed costs	
Technologies	
Semi products	

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

门 Re	ecords of the se	of raw materials		
v	ELMONT B	lgrade		
	Code	Name	Unit of measure	Price 📩
H				
H				
H				
H				
-				
H				
H				
•	1			
l.	Insert	Edit Delete	_	Print list

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.

📋 Inserting of new ray	w material	<u>_ </u>
Code :	0000001	
Name :	Sour cherry base	
Unit of measure :	Kilogramme 💌	
Price :	170.0000000	
		Save

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
000001	Sour cherry base	Kilogramme	170.000000
000002	Sugar	Kilogramme	40.1000000
000003	Nitric acid	Litre	20.000000
000004	Hydrogen peroxide	Kilogramme	70.000000
000005	LHL strip	Kilogramme	220.0000000
000006	Detergent	Kilogramme	60.000000
000007	Caustic soda	Kilogramme	23.0000000
800000	Juice box	Piece	11.1000000
000009	Thermo-shrinkable film	Kilogramme	96.000000
0000010	Tropicana foil 1/1	Pack	8.900000
0000011	Small-grained salts	Kilogramme	1200.0000000

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

🕒 Editing of raw mate	rial		
Code :	0000001		
Name :	Sour cherry base		
Unit of measure :	Kilogramme	•	
Price :	170.0000000		
			Save

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.

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:

Code	Name	Unit of measure	Price
0000010	Tropicana foil 1/1	Pack	8.900000
800000	Juice box	Piece	11.1000000
0000003	Nitric acid	Litre	20.000000
0000007	Caustic soda	Kilogramme	23.000000
0000002	Sugar	Kilogramme	40.1000000
0000006	Detergent	Kilogramme	60.000000
0000004	Hydrogen peroxide	Kilogramme	70.000000
0000009	Thermo-shrinkable film	Kilogramme	96.000000
0000001	Sour cherry base	Kilogramme	170.0000000
0000005	LHL strip	Kilogramme	220.0000000
0000011	Small-grained salts	Kilogramme	1200.0000000

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

/ELMO	ONT Belgrade	e		04/09/201 10:35:0
		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	000003	Nitric acid	Litre	20.000000
R	0000007	Caustic soda	Kilogramme	23.000000
R	0000002	Sugar	Kilogramme	40.1000000
R	0000006	Detergent	Kilogramme	60.000000
R	0000004	Hydrogen peroxide	Kilogramme	70.000000
R	0000009	Thermo-shrinkable film	Kilogramme	96.000000
R	0000001	Sour cherry base	Kilogramme	170.0000000
	0000005	LHL strip	Kilogramme	220.000000
R				

'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:

Energies

Code	Name	Unit of measure	Price
00001	Electric energy	Kwh	5.000000
00002	Diesel fuel	Litre	65.000000
00003	Mazut	Kilogramme	20.000000

Fixed costs

Code	Name	Unit of measure	Price
0000001	Semi-skilled worker (man-day)	Day	1500.0000000
0000002	Skilled worker (man-day)	Day	2500.0000000
0000003	Maint. and parts of sterile prod. line	Day	1500.0000000
0000004	Depreciation of sterile prod. line	Day	1500.0000000
0000005	Overhead costs	Litre	1.5000000
0000006	Well maintenance	Day	700.0000000
0000007	Maintenance and parts for air	Day	350.0000000
0000008	Depreciation for air (for the plant)	Day	200.0000000
000009	Spare parts for transport	Day	400.0000000
0000010	Depreciation for the vehicles	Day	1500.0000000
0000011	Vehicle tyres	Day	400.0000000
0000012	Protect. equip. for transp. worker	Day	40.0000000
0000013	Vehicle registration	Day	50.0000000
0000014	Per diems for business trips	Day	200.0000000
0000015	Maintenance and parts for steam	Dav	1000.0000000

For the technological elements and semi-products it is possible only to preview the data and print out the lists. The detailed review of these elements is performed through the function **Calculations/Sub-calculations**.

Calculations

Auxiliary calculations	
Final products	

Sub-calculations

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

ymbol	Code	Name of sub-calculation	Unit of measure	Series	Cost price	Date
Т	0000001	Water	Litre	850000		04/09/2015
Т	0000002	Air	Litre	50000	0.0530000	04/09/2015
Т	000003	Transport of finished products	Litre	2500	4.3380000	04/09/2015
Т	0000004	Steam	Kilogramme	90000	2.1520359	04/09/2015
Т	0000005	CIP	Percent	100	164.7123934	04/09/2015

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.

Inserting of sub-calculat	ion		_ 🗆 🗙
Symbol / code :	T / 0000001 Name	e: Water	
Unit of measure :	Litre Cost price	0.000000	
Date :	04/09/2015		
			(
Calc. for the num. of uni	ts: 850000		Save
Insert - insert element,	Enter - edit, Delete - delete		
Symbol Code	Name	Unit of measure	Quantity
₹			Þ

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.

🗋 Inserting of sub-calculat	ion					×
Symbol / code :	T / 0000001	Name :	Water			
Unit of measure :	Litre 🔻	Cost price :		0.000000		
Date :	04/09/2015		, 			
Calc. for the num. of unit					Save	
Insert - insert element,	Enter - edit, Delete - delete					
Symbol Code	Name			Unit of measure	Quantity	1
				one or modela c		1
1	1			1		1
E					0.000000	

] Index energy		<u> </u>
Code	Name	
▶ 0000002	Diesel fuel	
0000001	Electric energy	
0000003	Mazut	
		►
Initial lette	rs of the name :	

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.

📋 Inserting of sub-calculati	on		_ 🗆 🗙
Symbol / code : Unit of measure : Date : Calc. for the num. of unit	·	0.000000	Save
	Enter - edit, Delete - delete		
Symbol Code	Name	Unit of measure	Quantity 🔄
		1	
E 0000001	Electric energy	Kwh	220.0000000

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.

📑 Inserting of sub-calculat	ion		_ 🗆 🗙
Symbol / code : Unit of measure : Date : Calc. for the num. of unit	T / 0000001 Name: Wate Litre Cost price: 04/09/2015 850000	r 0.0012941	Save
Insert - insert element,	Enter - edit, Delete - delete		
Symbol Code	Name	Unit of measure	Quantity 🔺
▶ E 0000001	Electric energy	Kwh	220.0000000
1	•		
			0.000000

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.

Inserting of sub-calculat	ion			×
Symbol / code : Unit of measure : Date : Calc. for the num. of unit	T / 0000001 Name: Water Litre Cost price: 04/09/2015	0.0035882	Save	
Insert - insert element,	Enter - edit, Delete - delete			
Symbol Code	Name	Unit of measure	Quantity 🔺	
E 0000001	Electric energy	Kwh	220.0000000	
F 0000002	Skilled worker (man-day)	Day	0.5000000	
▶ F 0000006	Well maintenance	Day	1.000000	
	1			1
				-

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

0000001	tion: 0000001 tion: Water Litre 0.003588 850000 tu	- Qt - Pr - Cc of tl - % calc De	ame nit of measurantity in the ice (price prost per unithe he sub-calcord final share culation)	ne given sub- per unit of me of measure (ulation) are in the pri-	easure) (share in th ce per unit	e price per	• unit of meas e (of the sub- 04/09/2015 11:58:47
ONT Belgrade ode of sub-calcula an e of sub-calcula nit of measure : st price : rform ed for : ate of sub-calculat	tion: 0000001 Liton: Water Litre 0.003588 \$50000 u ion: 04/09/20 Name	- UI - Qu - Pr - Cc of ti - % calc	ame nit of measu uantity in the ice (price prost per unit he sub-calc of final share culation) tailed calcula	e given sub- per unit of me of measure (ulation) are in the pri- re- re- tion of technolo Quantity	easure) (share in th ce per unit	e price per	e (of the sub- 04/09/2015 11:58:47
ONT Belgrade ode of sub-calcula am e of sub-calcula nit of measure : nit of measure : st price : rform ed for : ate of sub-calculat	tion: 0000001 Liton: Water Litre 0.003588 \$50000 u ion: 04/09/20	- UI - Qu - Pr - Cc of ti - % calc	ame nit of measurantity in the ice (price prost per unithe sub-calcorrelation) of final shares culation)	tion of technological	easure) (share in th ce per unit	e price per	e (of the sub-
	Page 1	- Ur - Qu - Pr - Cc of tl - % calc	ame nit of measurantity in the ice (price prost per unithe he sub-calcord final share culation)	e given sub- per unit of me of measure (ulation) are in the pri-	easure) share in th ce per unit	e price per	e (of the sub-
	Page 1	- Ui - Qu - Pr - Co of ti - %	ame nit of measurantity in the ice (price prost per unit he sub-calcored of final shared)	ne given sub- per unit of me of measure (ulation) are in the pri-	easure) share in th ce per unit	e price per	e (of the sub-
er - kalpolu.frx -	Page 1	- Ui - Qu - Pr - Co of ti - %	ame nit of measurantity in the ice (price prost per unit he sub-calcored of final shared)	ne given sub- per unit of me of measure (sulation)	easure) (share in th	ne price per	e (of the sub-
		- Ui - Qu - Pr - Co of ti - %	ame nit of measurantity in the ice (price prost per unit he sub-calcored of final shared)	ne given sub- per unit of me of measure (sulation)	easure) (share in th	ne price per	
		- U1	ame nit of measure				
			Jue				
		- Sy - Co					
calculat		calculation a			-	-	
oole-1-4		_				concert de	to on the 1
		item, and the	n delete the	e calculation		1	
		To delete the	sub-calcul	lation, you no	eed to dele	te all its ap	pearances as
				OK			
		Element c		ause			
			ning you th		s not possi	ble.	
		does not app calculation.	ear as an it If you atten	em in other s npt to delete	ub-calcula such calcu	tions or in lation, a m	some final
			-				
	calculat	calculation	 Deleting the does not app calculation. I appear inform Itessage Itessag	 Deleting the sub-calculation. If you attent appear informing you the appear information information. If you attent appear informing the deleted, between the bills of material test is an item in the bills of material test in the bills of a period. To delete the sub-calculation and then delete the appear item, and then delete the appear item, and then delete the appear item, and then delete the appear item appear appear appear appear item appear a	 Deleting the sub-calculation. This is does not appear as an item in other is calculation. If you attempt to delete appear informing you that deleting is Imperative the sub-calculation is the bills of materials. To delete the sub-calculation, you not item, and then delete the calculation Printing the list of all sub-calculation sh calculation and all of its items. The feach item: Symbol 	does not appear as an item in other sub-calculat calculation. If you attempt to delete such calculation appear informing you that deleting is not posside Image: Im	 Deleting the sub-calculation. This can be done only if the does not appear as an item in other sub-calculations or in calculation. If you attempt to delete such calculation, a mappear informing you that deleting is not possible. Image: The sub-calculation is not possible. To delete the sub-calculation, you need to delete all its appear item, and then delete the calculation. Printing the list of all sub-calculations. calculation Printing the detailed calculation showing the general dat calculation and all of its items. The following parameters each item: Symbol

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':

t Designer - kalpolus.frx - F VELMONT Belgrade	rage 1	Print Preview	× 4	04/09/201: 12:01:1
	Schema	of technology		
Code of technology:	0000005			
Name of technology:	CIP			
Unit of measure :	Percent			
Cost price :	164.7123934			
Perform ed for :	100 unit			
Date of sub-calculation :	04/09/2015			
		Quantity	Unit of measure	•
E 0000001 Electric en	nergy	75.000000	Kwh	
F 0000002 Skilled wor	rker (man-day)	2.5000000	Day	
F 0000017 Maintenance	e of CIP (device)	1.0000000	Day	
F 0000018 Depreciatio	on for CIP (device)	1.0000000	Day	
R 0000003 Nitric acid	1	40.000000	Litre	
R 0000007 Caustic so	ia	55.000000	Kilogramme	
T 0000001 Water		30000.0000000	Litre	
E 0000001 Electric	energy			
F 0000002 Skilled w	worker (man-day)			
F 0000006 Well main	ntenance			
T 0000002 Air		1100.0000000	Litre	
E 0000001 Electric				
F 0000002 Skilled w				
	nce and parts for air			
	tion for air (for the pla			
T 0000004 Steam		2600.0000000	Kilogramme	
E 0000001 Electric	energy			
E 0000003 Mazut				
F 0000002 Skilled v				
	nce and parts for steam			
	tion for steam (device)			
R 0000011 Small-gra T 0000001 Water	aineu Saits			
E 0000001 Water E 0000001 Electr:	ic epergy			
	d worker (man-day)			

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:

ymbol	Code	Name of sub-calculation	Unit of measure	Series	Cost price	Date
Т	0000001	Water	Litre	850000	0.0035882	04/09/2015
Т	0000002	Air	Litre	50000	0.0530000	04/09/2015
Т	000003	Transport of finished products	Litre	2500	4.3380000	04/09/2015
Т	0000004	Steam	Kilogramme	90000	2.1520359	04/09/2015
Т	0000005	CIP	Percent	100	164.7123934	04/09/2015

Final calculations

Code	Name of final product	Unit of measure	Series	Cost price	Sales price	Date
00000	Sour cherry fruit juice 1 litre	Litre	10000	30.7271023	50.000000	

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.

ation		
Code	Name of final product	
1000000	Sour cherry fruit juice 1 litre	
	Sour cherry fruit juice 1 litre	
		Сору
	Code	Code Name of final product 1000000 Sour cherry fruit juice 1 litre

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.

de of i	fin. prod. :	1000000 Name :	Sour cherry fruit juice 1 lit	re
uit of m	neasure :	Litre Cost price :	30.7271023	
ite :		04/09/2015 Sales price :	50.000000	
lc for	the num. of u			Save
				4
nsert -	insert elemer	t, 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	5.000000
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	8.000000
R	0000006	Detergent	Kilogramme	5.0000000
R	0000007	Caustic soda	Kilogramme	20.0000000
R	0000008	Juice hox	Piece	1700 0000000

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

VEL	MONT Belgrad	ie			Print Preview	► ► 100% ▼	× •	04/09/201 12:07:5
			Det	ailed calculatio	n of the final p	oroduct		
	Code of the fina Nam e of the fina Unit of measure Cost price : Performed for : Date of the final	al product : :	1000000 Sour cherry fruit juice 1 litre Litre 30.7271023 10000 unit 04/09/2015					
Symb	ol Code	Name		Unit of measure	Quantity	Price P	rice per unit of measure	% of final share per unit
Е	0000001	Electric en	ergy	Kwh	150.0000000	5.0000000	0.0750000	0.2440842 %
F	0000001	Semi-skille	ed worker (man-day)	Day	5.0000000	1500.0000000	0.7500000	2.4408419 %
F	0000002	Stalled wo	doer (man-day)	Day	5.0000000	2500.0000000	1.2500000	4.0680699 %
F	0000003	Maint. and	parts of sterile prod. line	Day	1.0000000	1500.0000000	0.1500000	0.4881684 %
F	0000004	Depreciatio	on of sterile prod. line	Day	1.0000000	1500.0000000	0.1500000	0.4881684 %
F	0000005	Overhead o	costs	Litre	10000.0000000	1.5000000	1.5000000	4.8816839 %
R	0000001	S our cherry	y base	Kilogramme	400.0000000	170.0000000	6.8000000	22.1303003 %
R	0000002	Sugar		Kilogramme	850.0000000	40.1000000	3.4085000	11.0928130 %
R	0000003	Nitric acid		Litre	20.0000000	20.0000000	0.0400000	0.1301782 %
R	0000004	Hydrogen	peroxide	Kilogramme	10.0000000	70.0000000	0.0700000	0.2278119 %
R	0000005	LHL strip		Kilogramme	8.0000000	220.0000000	0.1760000	0.5727842 %
R	0000006	Detergent		Kilogramme	5.0000000	60.0000000	0.0300000	0.0976337%
R	0000007	Caustic soc	đa	Kilogramme	20.0000000	23.0000000	0.0460000	0.1497050 %
	0000008	Juice box		Piece	1700.0000000	11.1000000	1.8870000	6.1411583 %
R	0000009	Thermo-sh	rinkable film	Kilogramme	80.0000000	96.0000000	0.7680000	2.4994221%
R R								

-	Name		Unit of measure	Quantity	Price Pr	rice per unit of measure	% of final share per unit
R 00000	10 Tropicana foil 1/1		Pack	10200.0000000	8.9000000	9.0780000	29.5439508 %
т 00000	01 Water		Litre	10000.0000000	0.0035882	0.0035882	0.0116776%
т 00000	02 Air		Litre	2000.0000000	0.0530000	0.0106000	0.0344972 %
т 00000	03 Transport of finished	products	Litre	10000.0000000	4.3380000	4.3380000	14.1178298 %
т 00000	04 Steam		Kilogramme	530.0000000	2.1520359	0.1140579	0.3711964 %
т 00000	05 CIP		Percent	5.0000000	164.7123934	0.0823561	0.2680246 %

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

VELMONT Belgrade		Print Preview XI I I I I III I	04/09/2015 12:13:19
	Scheme of the bi	ll 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		150.000000	Kwh
F 0000001 Semi-skilled work	r (man-day)	5.0000000	Day
F 0000002 Skilled worker (m		5.000000	Day
F 0000003 Maint. and parts		1.0000000	Day
F 0000004 Depreciation of s	erile prod. line	1.0000000	Day
F 0000005 Overhead costs		10000.0000000	Litre
		400.000000	Kilogramme
R 0000001 Sour cherry base		850.000000	Kilogramme
R 0000001 Sour cherry base R 0000002 Sugar			Litre
R 0000001 Sour cherry base R 0000002 Sugar R 0000003 Nitric acid		20.000000	*** * *
R 0000001 Sour cherry base R 0000002 Sugar R 0000003 Nitric acid R 0000004 Hydrogen peroxide		10.0000000	Kilogramme
R 0000001 Sour cherry base R 0000002 Sugar R 0000003 Nitric acid R 0000004 Hydrogen peroxide R 0000005 LHL strip		10.0000000 8.0000000	Kilogramme
R 000001 Sour cherry base R 000002 Sugar R 000003 Nitric acid R 000004 Hydrogen peroxide R 000005 LEL strip R 000005 Detergent		10.000000 8.0000000 5.0000000	Kilogramme Kilogramme
R 0000001 Sour cherry base R 000002 Sugar R 0000003 Ntric acid R 0000004 Hydrogen peroxide R 0000005 LHL strip R 0000006 Detergent R 0000007 Caustic soda		10.000000 8.000000 5.000000 20.000000	Kilogramme Kilogramme Kilogramme
R 000001 Sour cherry base R 000002 Sugar R 000003 Nitric acid R 000004 Hydrogen peroxide R 000005 LEL strip R 000005 Detergent	film	10.000000 8.0000000 5.0000000	Kilogramme Kilogramme Kilogramme Piece
R 0000001 Sour cherry base R 000002 Sugar R 000003 Nitric acid R 0000004 Hydrogen peroxide R 0000005 LHL strip R 0000005 Detergent R 0000007 Caustic soda R 0000007 Sintemo-shrinkable		10.000000 8.0000000 5.0000000 20.0000000 1700.0000000	Kilogramme Kilogramme Kilogramme
R 0000001 Sour cherry base R 000002 Sugar R 0000003 Nitric acid R 0000004 Hydrogen peroxide R 0000005 LHL strip R 0000005 Detergent R 0000007 Caustic soda R 0000003 Juice box		10.000000 8.000000 5.000000 20.000000 1700.000000 80.000000	Kilogramme Kilogramme Kilogramme Piece Kilogramme

	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	530.000000	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	382.777778	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

	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	55.000000	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	93.888889	Litre
E 0000001 Electric energy	0.0243007	Kwh
F 0000002 Skilled worker (man-day)	0.0000552	Day
F 0000006 Well maintenance	0.0001105	Day
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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 N	lame	Unit of measure	Price	Quantity	
		lectric energy	Kwh	5.0000000	168.3118432	
		Hectric energy	Litre	65.0000000		
E 0000			Kilogramme	20.0000000	21.6333333	
		emi-skilled worker (man-day)	Dav		11.0000000	
		killed worker (man-day)	Day	2500.0000000		
		aint, and parts of sterile prod, line		1500.0000000	1.0000000	
		epreciation of sterile prod. line	Day	1500.0000000		
		verhead costs	Litre		10000.0000000	
		Wernead Costs Well maintenance	Dav	700.000000		
		aintenance and parts for air	Day	350.0000000		
		epreciation for air (for the plant)	Day	200.0000000		
		pare parts for transport	Day	400.0000000	4.0000000	
		epreciation for the vehicles	Day	1500.0000000		
		Wehicle tyres	Day	400.0000000		
		rotect, equip, for transp, worker	Day		12.0000000	
		ehicle registration	Dav	50.0000000		
		er diems for business trips	Dav	200.0000000		
		aintenance and parts for steam	Dav	1000.0000000		
		epreciation for steam (device)	Dav	1800.0000000		
		aintenance of CIP (device)	Dav	320.0000000		
F 0000	0018 D	epreciation for CIP (device)	Dav	1700.0000000	0.0500000	
R 0000	0001 S	our cherry base	Kilogramme	170,0000000	400.0000000	
	0002 S		Kilogramme	40.1000000	850.000000	
		litric acid	Litre	20.000000	22.000000	
R 0000	0004 H	ydrogen peroxide	Kilogramme	70.000000	10.000000	
R 0000	0005 L	HL strip	Kilogramme	220.000000	8.000000	
R 0000	0006 D	letergent	Kilogramme	60.000000	5.000000	
R 0000	0007 C	austic soda	Kilogramme	23.000000	22.7500000	
R 0000	0008 J	uice box	Piece	11.1000000	1700.000000	
R 0000	0009 T	hermo-shrinkable film	Kilogramme	96.000000	80.000000	
R 0000	0010 T	ropicana foil 1/1	Pack	8.9000000	10200.0000000	
R 0000	0011 S	mall-grained salts	Kilogramme	1200.000000	0.7333333	
R 0000	0011 S	mall-grained salts	Kilogramme	1200.000000	0.7333333	

Registers

Units of measure

Units of measure

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

ŗ	Index of uni	ts of measure	_ 🗆 X
	VELMON	IT Belgrade	
ſ			
	Code	Name of unit of measure	<u> </u>
	▶ 1	Kilogramme	
	2	Piece	
ĺ	3	Pack	
ĺ	4	Litre	
ĺ	5	Kwh	
[6	Day	
	7	Percent	
	8	Oily unit	
ĺ	9	Box	
[_
ĺ	4		Þ
	Inser	t Edit Delete	

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.

Tinserting of unit of measure			_ 🗆 🗙
Code : Name of unit of measure :	10		
		Save	

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'.

Editing of unit of measure			_ 🗆 🗙
Code :	7		
Name of unit of measure :	Percent		
		Save	

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, subcalculation 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.

ymbol	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	000003	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

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
Service of database indexes
Program parameters
Backup database
Program version and user rights and obligations

User administration

User administration				
User name	Name and surname	Rights	Logged ir 📩	
▶ brank	Branko Vujanovic	SS	*	
			↓ ↓ ↓	
			L	
-				
-			├ ──┼	
-			<u> </u>	
			++ 1	
			v	
4	·	·	Þ	
User name : Enter - edit, Delete - delete				
Password :				
Name and surname :				
Rights :				
Ū.			Save	
			54.0	

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.

Message		×
During the performance of this function other func in the application shouldn't be used. Continue with execution of this funcion?		
	OK Cancel	

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

📋 Program parameters		<u> </u>
Language : Date :	English British/French dd/mm/yyyy	•
Decimal separator :	. (point)	
Show preview before	printing	
Print to file		
	Save	

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

📑 Backup database	
With this function, a backup copy of data will in the directory :	be made to drive
CopyKalPro	
Name of backup copy will be :	
CopyKalPro20150904.7z	
	Сору

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.

Program version and	user rights and obligations		_ 🗆 🗙	
Copyright :	"Velmont" Beograd			
	Dimitrija Tucovića	br. 74/7		
	11000 Belgrade Republic of Serbia			
	Europe			
a				
Contact :	Telefon : +381 (0)1 Mobile :	1 240 4314		
	E-mail : branvu@eunet.rs			
	1			
Program version :		2015-09-02	A	
User rights and oblig	zations :			
The second secon				
User doesn't have right to make copies, sell or on some other way alienate aplication "KalPro".				
Only users who bought application "KalPro" and				
	have the statement of rights of use, can use			
1 -	aplication "KalPro" exclusively in executable version of the program.			
	User is informed and agrees with methodology			
	built in application! User also accepts responsability for consequences incurred due to			
	malfunction of this application, hardware, sys-			
tem software or improper using of things				
mentioned befo	re.			
* By using this progra	m you accept rights and oblig	ations presented h	iere.	
		Close		
		Close		

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