



AkzoNobel

Tomorrow's Answers Today

ColorPro

Version 1.0

ColorPro

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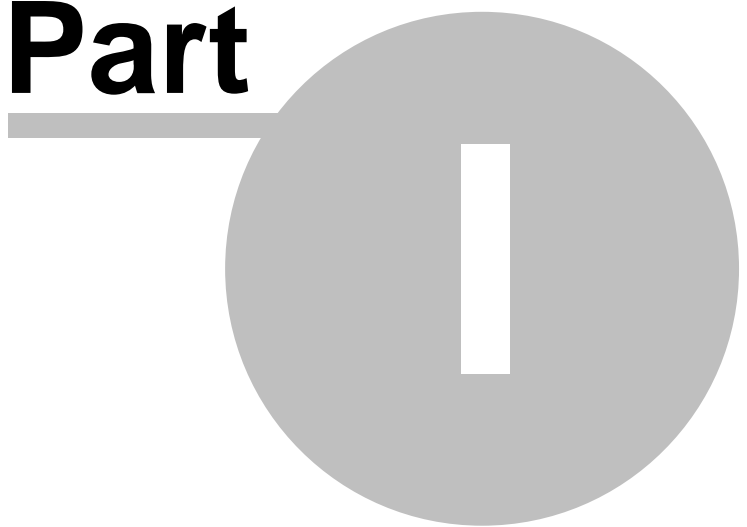
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Part



1 How to use the system

You will find enclosed necessary information on how to use the system, basic access commands to functions and available resources.

1.1 System main screen

The system main screen contains menus to access the system functions. Depending on the user's *profile*, some functions may be omitted from the main menu. The following figure illustrates the system main screen which is displayed to the user with the management profile, which has all the functions enabled:

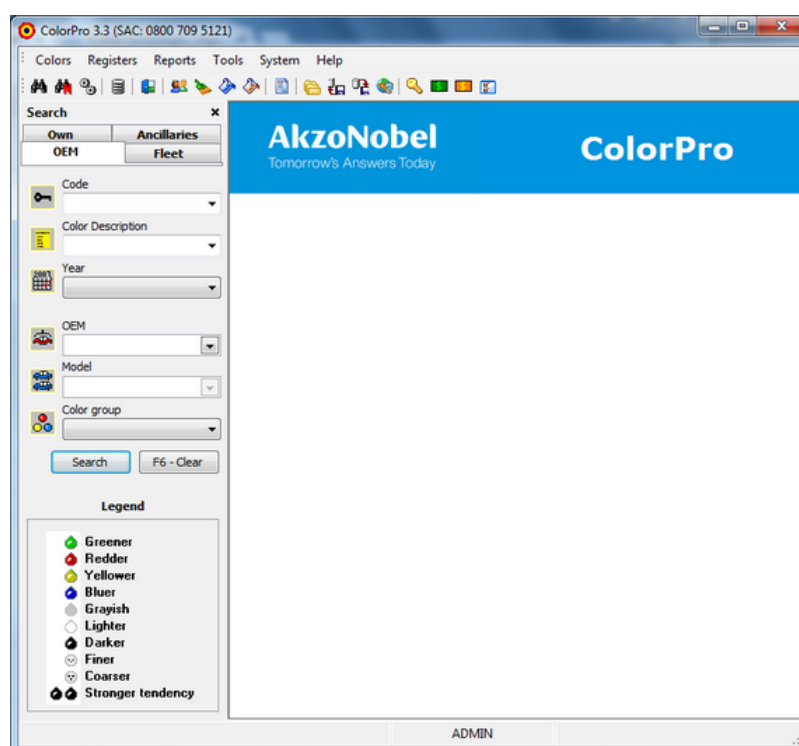


Figure: system main screen

As follows we highlighted each one of the elements of the system main screen, which will be mentioned throughout this manual:

Menu bars

In the menu bars you will find the program's main menu, which contains all the functions grouped by category. The following figure illustrates the menu bars:

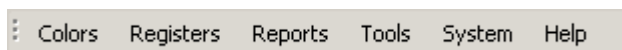


Figure: Menu bars

Button bar

In the button bars you find the access to main system functions, therefore, being a fast way to access

them. The following figure illustrates the button bars:



Figure: button bars

Formula search window

The formula search window is used to find a given formula, or select a group of formulas that meet certain search criterion. The following figure illustrates the formula search window:

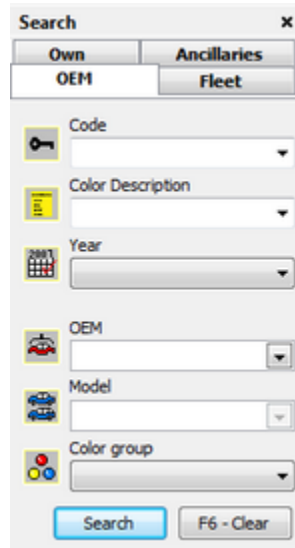


Figure: formula search window

Note: an explanation about the formula search window can be found in the topic Colors > Search.

Key

The keys aim to clarify in order to become easy for the user to recognize and differentiate types of tones.

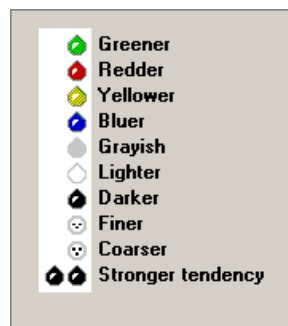


Figure: key screen

1.2 Registration functions

All registrations have common functions that will be explained as follows. These functions can be accessed from the functions bar, displayed in the figure below:

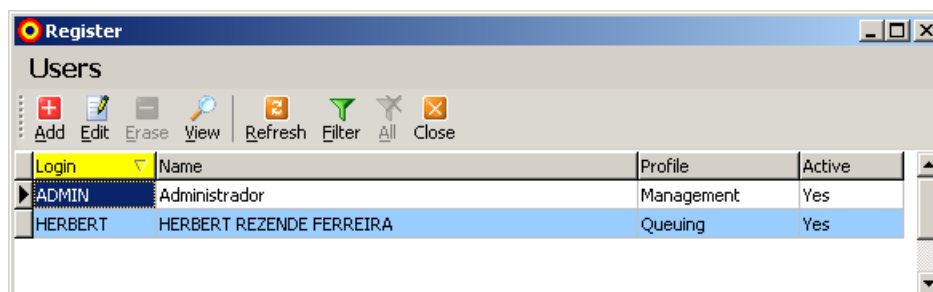


Figure: buttons to access the registration functions

Add

Use this function to add a new item in the registration.

Modify

Use this function to edit the content of the selected item from the list.

Delete

Use this function to delete the item selected from the list.

View

Use this function to view the content of the item selected from the list.

To update

Use that function to updating list content.

Print

Use this function to print the items in the registration. When selected, a screen will be displayed so the printing can be viewed. By clicking the button with an icon similar to a printer, the content will be printed. In case you do not wish to print, click the "Close" button or close the window.

Filter

Use this function to filter entries, to search for some item in the registration. The filter screen is divided in two areas: "Field" and "Condition". In the "Field" area there are fields from the current registration. According to the field selected, the "Condition" area will display the criteria so the search can be performed. Some criteria must be typed, e.g., in case of search by name. Other criteria must be selected from a list, and in this case, the field has the image of an arrow (aiming down). This happens to the fields in which filling out depend on the content of another registration. *Example: if you are in the Product registration and wish to perform a search by the "System" field, you must select an available system from a list.* This program resource is discussed in the topic *A filter window*.

All

Use this function to display all records, ignoring the filter criteria recently used.

Close

Use this function to close the window that displays the list of items in the current registration.

1.3 Filter window

The filter window is an extremely helpful resource to assist the search and to locate the entries in the system database. It can be accessed from all registrations, offering exclusive search criteria according to the registration structure which is being used. Therefore, for the registration in which are kept data regarding the user's *name*, *profile*, *login*, *status* (*active*, *inactive*), the filter screen will make it possible to locate a user (or group of employees) of these fields. According to the type of field used in the registration, it is possible to perform a specific search form to locate an entry in the database. Example: for the field *name*, search can be performed to find names that start with a specific text typed; that end with the same text typed; in which the text appears anywhere, or even that are exactly the same as the text typed. In order to locate entries that contain fields with numeric values, example, to select all products which prices are above a certain value, a *value or range of values* can be informed in the search.

As follows we explain the structure of the filter window, describing all elements that compose it, and we explain how it works through practical examples.

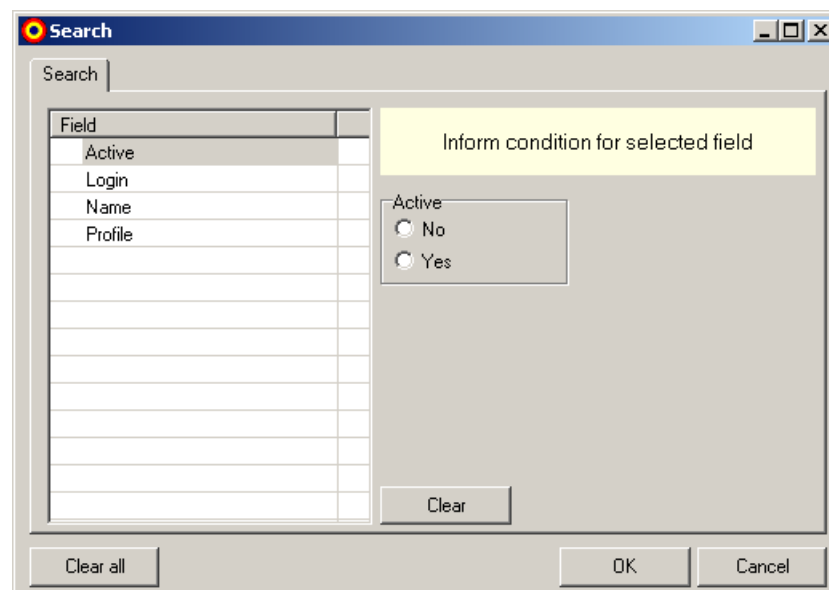


Figure: example of filter window

The filter window has two regions: the left one, in which are listed the fields of the current registration that can be filtered, and the right one, in which it is informed the condition to the field selected. Example: in case of *user's registrations*, if we wish to find all users in which profile is *Management*, the field *Profile* must be selected, in the list of filter fields (located on the left side of the window). When a field is selected, the right region will display one field (or more, depending on the type of field), so the *condition* of the field can be informed. When the condition is informed, a *visual indication* will be placed by the field, according to the illustration below:



Figure: visual indication to the fields used in the filter

After filling out all the conditions chosen, you must click the <OK> button.

Note: you can use more than one field (with the respective condition) to filter the registrations.

- ➡ Use the <Clean> button to clean the content of the condition informed to a *selected* field.
- ➡ Use the <Clean all> button to clean the content of the conditions informed to all filter fields.

As follows, we are going to explain how to use the filter window, to each type of existing field.

1- "Text" type field

The *text* type field is used, for instance, in names, descriptions, character sequences, etc. For this type of field, it is possible, if the complete word to be searched for is informed, only a part of the word (beginning, middle, or end) or even, an interval for the search. Example: let's say we want to find users whose name contains the word "Maria", and the following names are available in the database (containing this word): Maria, Lucia Maria and Maria Jose. For this search, the best way would be to select the option <in any position>, because the location of this word was not specified (Maria) within the user's complete name. Note that if the option <ending with> was selected, the following results would be returned: Maria and Lucia Maria.

The figure below illustrates an example of this type of field:

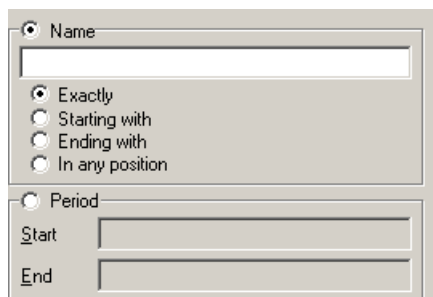


Figure: example of "text" type field

2- "Single selection" type field

The *single selection* type field is used when the value of the field in the registrations to be searched can only present one of the values listed to such field. An example of this field in the system would be the <User status>: note that a user can be active OR not in the system.

The following figure illustrates an example of this type of field:

Field
Active
Login
Name
Profile

Inform condition for selected field

Active

☐ No

☐ Yes

Figure: example of "single selection" type field

3- "Multiple selection" type field

The *selection multiple* type field, is used when the field to be searched belongs to a given category, previously defined in the system, and that identifies the entry to be search according to some criterion. An example of the occurrence of this filter field would be the field <Profile>. We can be interested in selecting (only) the users with the managing profile, or (only) the users with the production profile, or even, the users with all profiles.

The following figure illustrates an example of this type of field:

Field
Active
Login
Name
Profile

Inform co

☐ Management

☐ Queuing

☐ Consultation

Figure: example of the "multiple selection" type field

4- "Decimal value" type field

The decimal value type field, is used when the field to be searched can have a fractioned value, and the Best example to this type of field is for values regarding prices our amounts. An example of occurrence of this type of field would be the field <Stock>. To perform search using this field, we have two options:

- To inform a specific value, for instance: 50.00. In this case, the option <Stock> must be selected. All databases will be selected with the amount in stock equal to 50.00.
- Inform an interval (range) of values. In this case, the option <Interval> must be selected and enter the initial and final values of the interval in question.

The following figure illustrates an example of this type of field:

Field
Code
Color Description
In use
List
Minimum stock
Status
Stock

Inform condition for selected field

☒ Stock

☐ Period

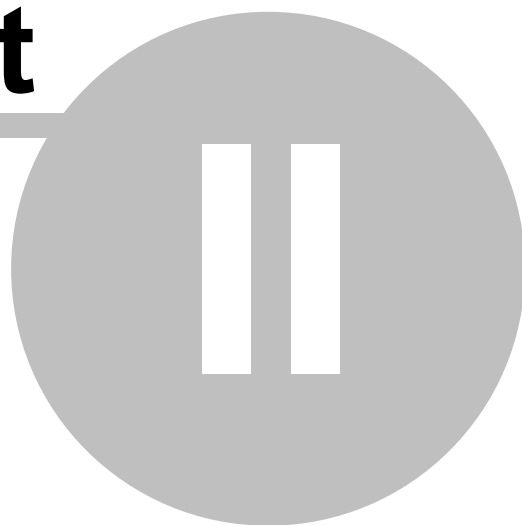
0,00

Start 0,00

End 0,00

Figure: example of the "decimal value" type field

Part



2 Colors

In this menu you will find the search functions, the production function, the information screen of the database and the option to close the program.

2.1 Search

The search function is used to search formula in the database. The following figure illustrates the search window:

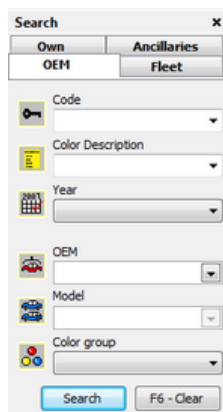


Figure: formula search window

The formula search window is divided in three *tabs*: *OEM*, *Fleet* and *Own*. In *OEM* they search for the formulas (colors) used by the manufacturer. In *Fleet*, they search for formulas prepared especially for company vehicles and the *Own* tab is used to search for local formulas.

For all three tabs, the button <Search> performs search based on search parameters informed. The <Clean> button is used to clean up the content on the search fields of the current tab.

Searching for manufacturer formulas

In order to look for color formulas used by car assemblies, select the *OEM* tab (in case it is not already enabled). To perform the search you must inform at least one of the fields: *code*, *description* or *manufacturer*. When performing search, keep in mind that:

- To search for a specific vehicle model it is necessary to select your *manufacturer* first;
- In case you don't even know the description and code, the *color group* can be informed, for instance, yellow;
- The code field refers to the formula *Akzo Code* to be searched for in the database and to the ColorMap value, and in case a ColorMap code is informed, all colors respectively attached to ColorMap will be listed.

After performing a search three more options will be displayed in the toolbar, the figure below demonstrates through an example, the following options:



Figure: additional buttons of the search function

- 1 - View one formula
- 2 - View models attached to a formula

3 - Print labels

The following figure illustrates through an example, the model window of a formula:

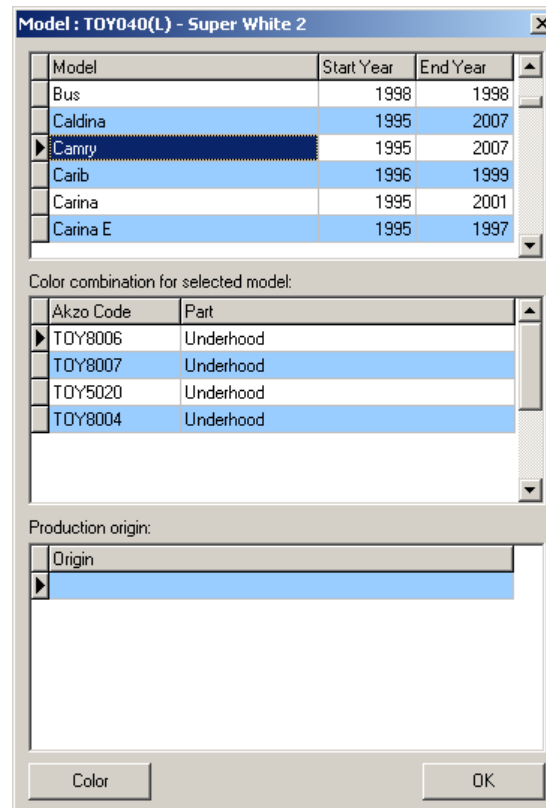


Figure: search window for own formulas

Through this window it is possible to view all the models, combinations and source of the production of the formula in question.

Note: These three additional functions described herein are also applied in the Name function of the color menu.

Searching for fleet formula

In order to search for color formulas used in companies' fleet, select the tab *Fleet*. For this type of search the following fields are used: *Code*, *description*, *year*, *fleet*, *owner* and the *color group*, as illustrated in the figure below:

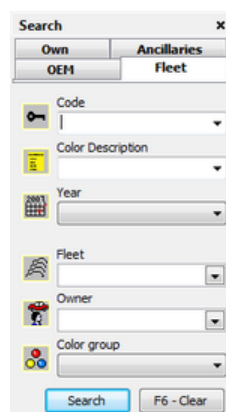


Figure: search window for fleet formulas

In order to find formulas of a certain owner, it is necessary to select a specific vehicle fleet first.

Searching for own formulas

To look for own formulas (locally produced or imported), select the tab *Own*. For this type of search the only fields used are *Code* and *Description*, according to the illustration below:

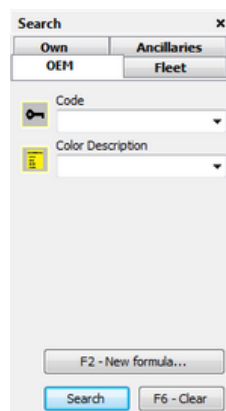


Figure: search window for own formulas

Note: the <New formula> button is a shortcut for the registration window of a new own formula. The addition of a new formula is discussed in the topic *Own Formula* of this manual

When trying to view a formula, in case it has more than one layer, the following warning message will be displayed:

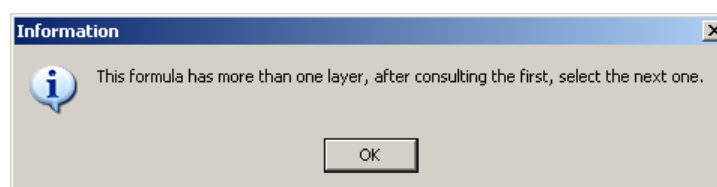


Figure: warning message window

Looking for formulas of complements

To search for formulas of complements, select the *Complements* tab. For this type of research, the following fields are used: *Code*, *description* and *type of complement*, as illustrated in the following

figure:

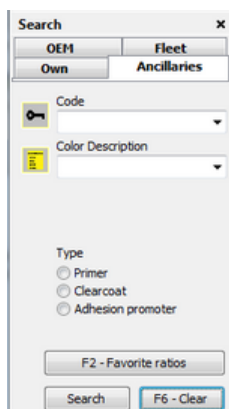


Figure: the search window of formulas of complements

Note: the <favorite mixes> button lists all complements included as favorites. The inclusion of a complement as favorite is discussed in the "Querying information about an addition to this manual" topic.

2.2 Names

This option of the <Colors> menu allows performing an additional search for formula names. The following figure illustrates the window displayed when this option is selected:

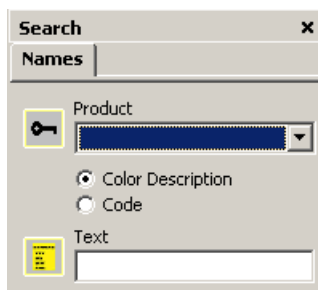


Figure: name search window

Searching for names

This type of search allows to search a color (or color group) from the description or code. Whether on description or code given, the text informed can be partial. As the letters are typed in the *text* field, the search is refined restricting the amount of results listed on the screen, according to the illustration below.

ColorPro

Colors Formulas Registers Reports Tools System Help

Search

Names

Product: Autabase Plus 100:50

Color Description

Code

Text: A

Legend

- Greener
- Redder
- Yellower
- Bluer
- Grayish
- Lighter
- Darker
- Finer
- Coarser
- Stronger tendency

Formulas

G...	Color Description	Va...	Akzo ...	Type	Start Year	End Year	OEM	Doc1
	Diamond White	A	S		1972	2007	Ford	52
	Black	A	S		1968	2000	Ford	28
	Cosmos Blue	A	M.2c		1978	1980	Ford	
	Arctic Blue	A	M.2c		1993	1998	Ford	
	Gris Alaska	A	P.2c		1994	2003	Ford	42
	Vermelho Las Vegas	A	P.2c		1995	2007	Ford	48
	Azul Mediterraneo	A	P.M.2c		1996	2005	Ford	
	Oro Trigo	A	M.2c		1998	2003	Ford	
	Black	A0	S		1968	2000	Ford	28
	Petrol Blue	A0015	M.2c		2000	2007	Proton	
	Red	A0016	M.2c		2002	2007	Proton	
	Arctic Blue	A0019	M.2c		2000	2007	Proton	
	Silver I	A0022	M.2c		2000	2007	Proton	
	Vanity Teal	A0023	M.2c		2003	2007	Proton	
	Vanity Teal	A0023	M.2c		2001	2003	Proton	
	Teal Blue	A0027	M.2c		2002	2007	Proton	
	Beige	A0028	M.2c		2002	2007	Proton	
	Indium	A0030	M.2c		2000	2000	Proton	
	Solid Red	A0036	S		2001	2007	Proton	
	Star Silver	A0050	M.2c		2004	2008	Proton	
	Vigour Red	A0061	P.2c		2005	2007	Proton	
	Angel Blue	A0062	M.2c		2004	2007	Proton	
	Metropolitan	A0064	M.2c		2004	2007	Proton	
	Dune	A0065	M.2c		2004	2007	Proton	
	Hot Chili Red	A0066	S		2003	2007	Proton	
	Gelb	A008	S		2003	2010	Mercedes Benz Truck	
	Super Purple	A0080	M.2c		2004	2007	Proton	

2616 41531 ms

ADMIN

Figure 1: results after typing "A"

The screenshot shows the ColorPro software interface. The 'Search' panel on the left has 'Product' selected with 'Autobase Plus 100:50' in the dropdown. The 'Text' field contains 'AR1'. The 'Formulas' panel on the right displays a table of search results. The table has columns: G., Color Description, Va..., Akzo ..., Type, Start Year, End Year, OEM, and Doc1. The results list various color names and their corresponding codes and years.

G.	Color Description	Va...	Akzo ...	Type	Start Year	End Year	OEM	Doc1
●	Clear Red	AR1	2c		1997	2000	Nissan	
●	Rosso Brunello	AR113:03	M.2c		2003	2003	Alfa Romeo	
○	Aurora Nuvola	AR114:98	P.3c		1998	2001	Alfa Romeo	
○	Aurora Nuvola	AR114:98(B	P.3c		1998	2001	Alfa Romeo	
●	Rosso Bordeaux	AR115	S		1988	1990	Alfa Romeo	
●	Rosso Brunello	AR117:03	P.2c		2003	2006	Alfa Romeo	
●	Rosso Pompieri	AR122:92	S		1992	1995	Alfa Romeo	
●	Bordeaux Scurio	AR126:91	M.2c		1991	1994	Alfa Romeo	
●	Rosso Ecologico	AR130	S		1988	1998	Alfa Romeo	
●	Rosso Ecologico	AR130(R)	S		1988	1998	Alfa Romeo	
●	Rosso Alfa	AR130:88	2c		1988	2007	Alfa Romeo	284
●	Rosso Alfa	AR130:88(B	2c		1988	2007	Alfa Romeo	
●	Rosso Alfa	AR130:88(D	2c		1988	2007	Alfa Romeo	
●	Rosso Alfa	AR130:88(Y	2c		1988	2007	Alfa Romeo	
●	Rosso Mercurio	AR132:04	M.2c		2004	2005	Alfa Romeo	
●	Bordeaux	AR134:94	M.2c		1994	1996	Alfa Romeo	
●	Rosso Bordeaux	AR146	M.2c		1991	1995	Alfa Romeo	
●	Rosso Bordeaux	AR146(D	M.2c		1991	1995	Alfa Romeo	
●	Prugna Scuro	AR164	M.2c		1996	1998	Alfa Romeo	
●	Rosso Miro	AR167	P.2c		2002	2003	Alfa Romeo	
●	Rosso Winner	AR179	P.2c		1991	1993	Alfa Romeo	
●	Rosso	AR183	M.2c		1990	1990	Alfa Romeo	
●	Rosso Proteo	AR195	M.2c		1993	2004	Alfa Romeo	
●	Rosso Proteo	AR195(D	M.2c		1993	2004	Alfa Romeo	

The status bar at the bottom shows '2616' and '41531 ms'.

Figure 2: results after typing "AR1"

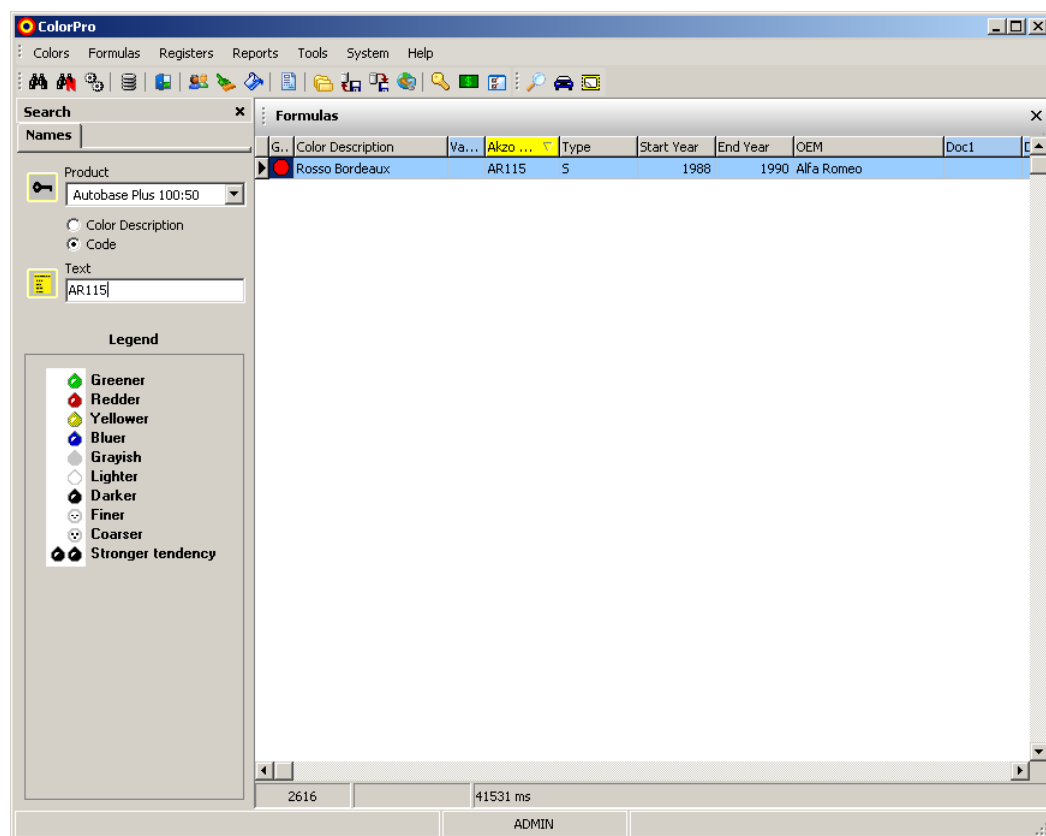


Figure 3: formula found

According to previous mention, as the search text is filled, the set of entries found is reduced, being able to eventually get to just one result (case in which only one formula has the code or description informed).

2.3 Production

This option in the <Colors> menu accesses the formula production function. The following figure illustrates, through an example, the formula production window:

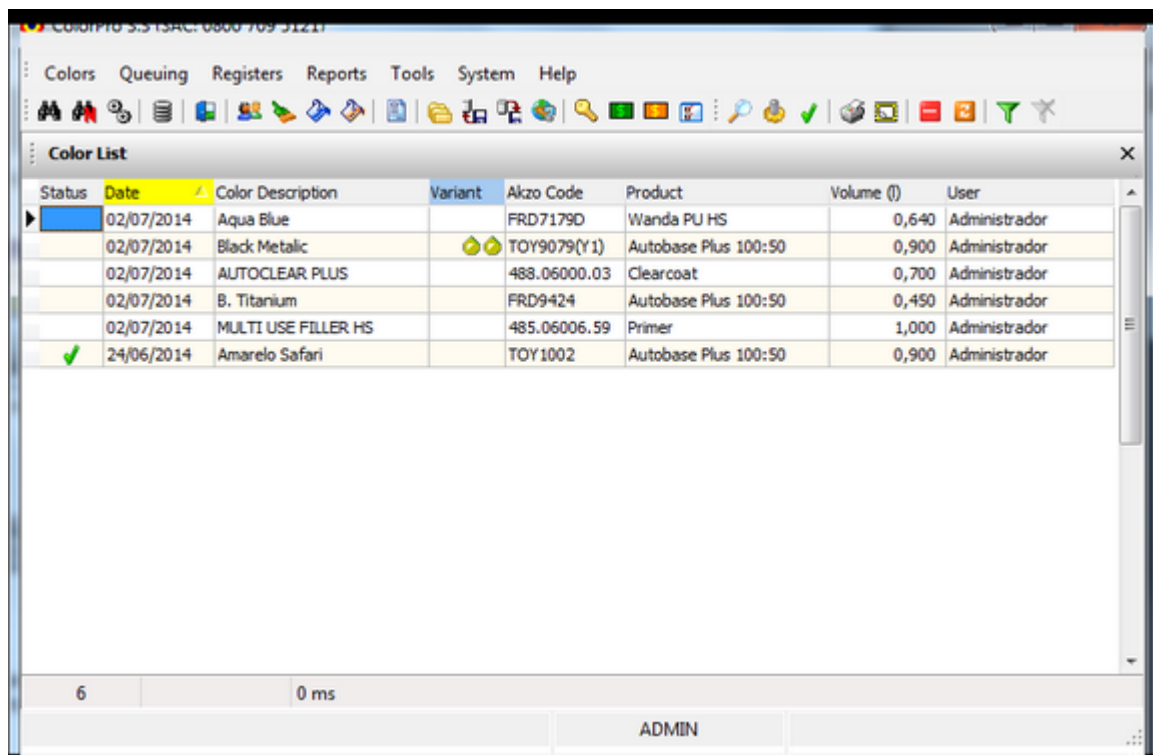


Figure: formula production window

When this function is selected, specific buttons to the production function are included in the button bar of the main window. The following figure illustrates new buttons of the production function:



Figure: buttons of formula production function

The production window displays, as default, only the formulas *that were not yet produced*. The functions of each one of those buttons are explained in each specific topic. When a formula production is registered, the *status* field, in the formula grid will display a mark, as highlighted in the figure below:

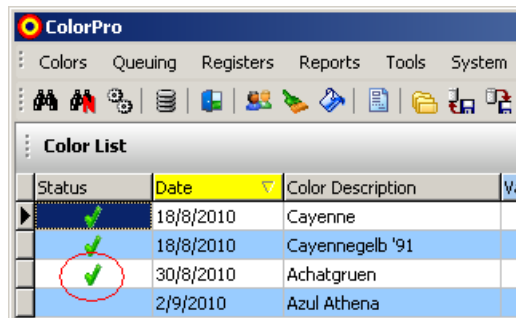


Figure: status mark (formula already produced)

2.3.1 Referring to information about a color

In order to refer to information about a given color, select the option <View> from the <Production> menu (you can also use the shortcut key **F5**). The following figure illustrates, through an example, the information window about the selected color:

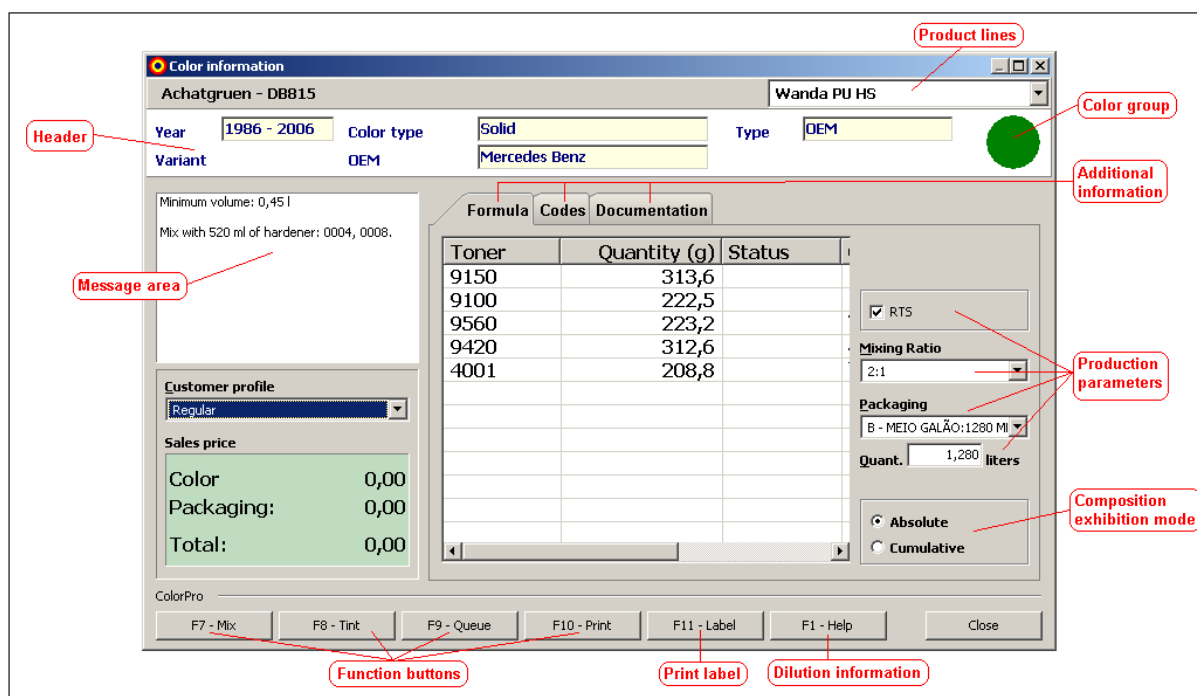


Figure: color information window

In the window, in addition to the composition, there are also presented: the minimum volume that can be produced of the formula (expressed in liters), VOC emissions (in grams) the type of color (*for example, a own formula*), the color version, and the sale price. When applicable, a message is displayed about the amount of catalyst to be added. As default, the display field of the composition shows the bases belonging to the layer 1. In order to see the composition of other layers (in case they exist), select the layer in the combo <Layer>. The amounts of each base are expressed in grams (g). It is possible to view the composition of each layer in two modes: *absolute* or *accumulated*. In the *absolute* mode, the individual amounts of each base component are shown. In the *accumulated*, from the second base, the amounts of each one of the bases include the total accumulated in the previous bases, as shown in the figure below:

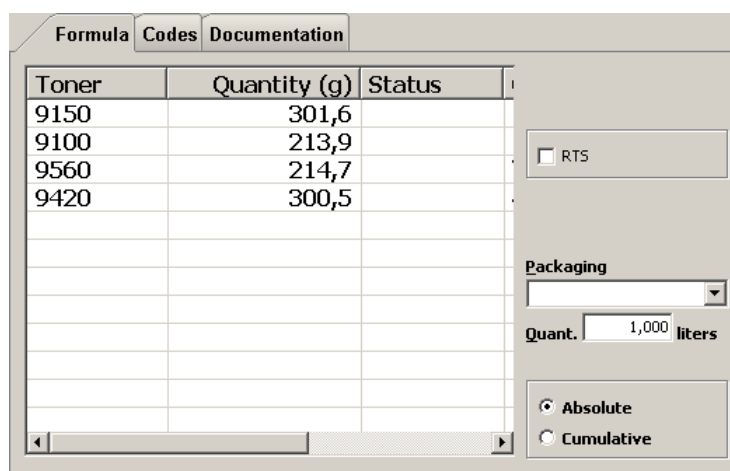


Figure: composition in the absolute mode

Toner	Quantity (g)	Status
9150	301,6	
9100	515,5	
9560	730,2	
9420	1.030,7	

☐ RTS
 Packaging:
 Quant. 1,000 liters
☐ Absolute
☒ Cumulative

Figure: composition in the accumulated mode

As it can be noted in the figure above, in the accumulated mode, the amount shown for the base 9100 is 515.5 grams, which corresponds to the sum of the amount of this base (213.9 grams) with the amount of the base 9150 (301.6 grams).

Depending on the type of formula (*OEM*, *Fleet* or *Own*), the information window about color can show one or more information tabs. For instance, for *fleet* colors, it will be shown the *owner* tab, in which will be listed the companies that own the color. On the other hand, for *OEM* colors, it will be shown *variant* tabs and *documentation* tab. For *own* colors, only the *composition* tab will be shown.

As follows, we provide a succinct description of each tab that will be able to appear in the information window about color.

Variants

In this tab (which is displayed only for *OEM* colors), the color variants are listed in which are being referred to. The following figure illustrates, through an example, this tab:

Variant	Akzo Code	Start Year	End Year	Value
▶ BMW9446(B)		1995	1999	1,00
▶ BMW9446(D)		1995	1999	1,00

Compare...

Figure: variant tabs

The grid of the *Variant* tab shows all existing variants for the color. By Double click the field *Variant* in a given line in the grid, the *composition* tab will start showing the *variant* composition in the grid. And the grid will start showing the variants for the selected variant. On the header, the color information *will also be updated*. The following figures illustrate, through examples, what has been provided herein.

The following figure (1) illustrates the formula window, wherein a color is highlighted having three variants:

G.	Color Description	Va...	Akzo Code	Type	Start Year	End Year	OEM	Doc1
	Canyon Red		BMW9446	P.2c	1995	1999	BMW	
	Canyon Red		BMW9446(B)	P.2c	1995	1999	BMW	
	Canyon Red		BMW9446(D)	P.2c	1995	1999	BMW	

Figure 1

Let's suppose that we selected the color identified in the figure 1, by the *Akzo code* BMW9446. The *variant tab*, for this color, would present the following variants, according to the illustration on figure (2) below:

Variant	Akzo Code	Start Year	End Year	Value
	BMW9446(B)	1995	1999	1,00
	BMW9446(D)	1995	1999	1,00

Figure 2

Now, if in the variant grid (*through a double click*) the variant with *Akzo code* BMW9446[B] is selected, which is the first variant of the grid, as mentioned, the color information window will be updated (*header and composition*) and the grid will start showing the variants for this color that was selected, according to the illustration on the figure (3) below:

Variant	Akzo Code	Start Year	End Year	Value
	BMW9446	1995	1999	1,00
	BMW9446(D)	1995	1999	1,00

Figure 3

Note: the variant tab will be displayed in case there is at least one variant for the color.

Comparing variants

The comparison function allows to perform the comparison between the color being referred to and a variant. For that, select one variant on the variant list and click the <Compare> button. A window will be displayed as illustrated in the figure below:

Figure: variant comparison window

Description

Formula		Variant		Descriptions	Codes	Documentation
	Color Description		Language			
▶	Canyon Red		English			
	Canyonrot		Standard			

Figure: Description tabs

Codes

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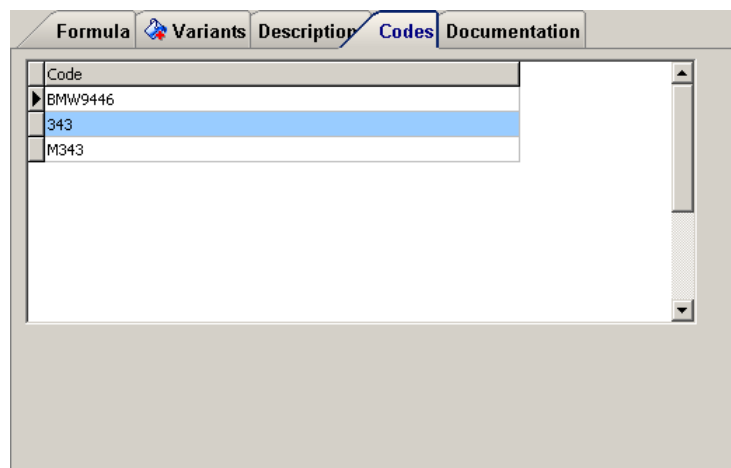


Figure: Codes tab

Note: in the example above, there are listed two codes for the color. This means that, if any of the codes above were typed in the search window, the same formula would be found.

Documentation

In this tab, there are listed the existing documents and its location as illustrated in the example below:

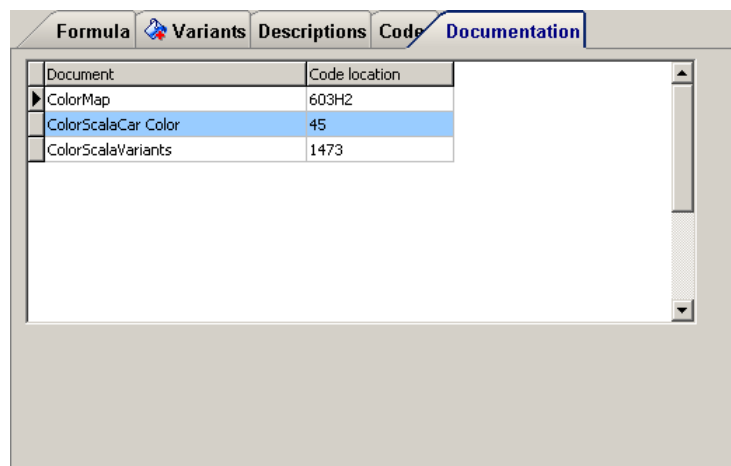


Figure: Documentation tab

Owners

In this tab there are listed the owners of the color being referred to, in case they exist, as illustrated in the example below:

Name	Start Year	End Year
I F Camargo	2004	2004

Figure: Owners tab

For each owner, the name, the initial and end year of the production of the color are displayed.

Dilution

For some product lines, when marking the field *ready for use*, the field for definition of the *dilution* to be used can be displayed, and in this case, a dilution must be selected. After selecting the dilution, the package to be used must be informed. As follows, we illustrate this process through an example. The figure (1) illustrated the initial information screen about color of a formula to which has dilutions (one or more). Note that, by selecting a product line with dilution, the *composition* information tab is displayed initially *empty*:

Toner	Quantity (g)	Status

Figure1

In the next figure (2), a selection of a dilution was performed, for this example we will work with a dilution of 2 to 1, i.e. (2:1):

Color information

Alasca Green - MIT6573

Wanda PU HS

Year: 1984 - 1991 Color type: Solid Type: OEM

Variant: OEM Mitsubishi

Minimum volume: 0,45 l

Customer profile:

Sales price:

Toner	Quantity (g)	Status

Quant.: 0,000 liters

ColorPro

F7 - Mix F8 - Tint F9 - Queue F10 - Print F11 - Label F1 - Help Close

Figure 2

Note that the composition display field is still empty, because is not yet defined which package will be used, that will be done in the next phase, illustrated in figure (3) as follows:

Color information

Alasca Green - MIT6573

Wanda PU HS

Year: 1984 - 1991 Color type: Solid Type: OEM

Variant: OEM Mitsubishi

Minimum volume: 0,45 l

Mix with 520 ml of hardener: 0004, 0008.

Customer profile:

Sales price:

Toner	Quantity (g)	Status
9100	486,1	
9600	98,9	
9190	190,9	
9420	344,2	
4001	208,8	

Quant.: 1,280 liters

ColorPro

F7 - Mix F8 - Tint F9 - Queue F10 - Print F11 - Label F1 - Help Close

Figure 3

Note that, once selected the package, the amount to be produced (expressed in *liters*) will be defined and closed, i.e., the value of this field cannot be changed (Amount).

Sale value

In order to compose the sales price, the system considers:

- bases price
- package price
- tax value
- profit margin value
- customer profile

The package price is the price of the package used in the formula production, according to the package price that was set in the *package registration* of the system.

The tax value is the value arising from the *percentage registration* of the system. Depending on the settings, we can have different tax values to each of the product lines or common values to all lines. It must be also noted that the tax values can increase or decrease the final price of the formula, according to the tax deposit.

The profit margin value is the value set in the *percentage registration*. This value is unique, not depending on the product line.

The customer profile enters the calculation as a multiplication factor of the formula price, according to the customer profile selected.

Note that the customer profile is set to each product line.

2.3.2 Referring to information about a ancillaries

To view information about a particular complement, select <View> from the <Production> menu (you can also use the shortcut key **F5**). The following figure illustrates, by example, the information window about the selected complement:

Ancillaries information

MULTI USE FILLER HS

Header
Code: 485.06006.62 Type: Primer

Message area
Minimum volume: 0,007 l
VOC: 641,7 g/l
VOC emission: 513,3 g

Formula
Quant.: 0,800 liters ☒ Absolute ☐ Cumulative
Ratio: 5:1+20% - Metal

Composition exhibition mode
☒ Absolute ☐ Cumulative

Production parameters

		%	g	ml
Primer	MULTI USE FILLER HS	69,16	885,2	553,3
Hardener	PLUS HARDENER P25 - 0,50	13,84	109,1	110,7
Thinner	PLUS REDUCER FAST - 1,00	17,00	120,9	136,0

Sales price
Total: 0,00

Function buttons
F7 - Mix F8 - Favorite F9 - Queue F10 - Print F11 - Label

Print label
Close

Figure: complement information window

In the window are displayed besides the composition, the minimum volume of complement can be produced (expressed in liters), emission of VOC (expressed in grams), the type of the complement (for example, a primer), and the selling price. The amounts of each component are expressed in grams (g). It can view the composition of the complement in two ways: *absolute* or *accumulated*. In *absolute*

mode, are show the individual quantities of each component. In *accumulated mode*, from the second component, the amounts of each one include the cumulative total of the above components, as exemplified in the following figure:

		%	g	ml
Primer	MULTI USE FILLER HS	69,16	885,2	553,3
Hardener	PLUS HARDENER P25 - 0,50	13,84	109,1	110,7
Thinner	PLUS REDUCER FAST - 1,00	17,00	120,9	136,0

Figure: composition in absolute mode

		%	g	ml
Primer	MULTI USE FILLER HS	69,16	885,2	553,3
Hardener	PLUS HARDENER P25 - 0,50	13,84	994,3	664,0
Thinner	PLUS REDUCER FAST - 1,00	17,00	1.115,2	800,0

Figure: composition in accumulated mode

As can be seen in the figure, in the accumulated mode, the displayed quantity to the component *P25 PLUS HARDENER* is *994.3 g*, which corresponds to the sum of the amount of this component (*109.1 g*) with the component amount *MULTI USE FILLER HS* (*885.2 g*).

Composition

For some dilution ratios, it can change the percentage set as the default within a certain pre range. To view this interval, simply place the mouse pointer on the percentage field to be presented the permitted range for change in composition. The following illustrates by an example of this procedure. Figure (1) below shows the screen with the range set to change between 10% and 20%:

The screenshot shows the 'Formula' tab in the ColorPro software. It displays a configuration for a formula with a quantity of 0,800 liters, set to 'Cumulative'. The ratio is '5:1+20% - Metal'. Below this, a table lists components with their respective percentages, weights in grams, and volumes in milliliters. A red box highlights the 'Thinner' component, showing a percentage of 17,00% and a weight of 1.115,2 g. A tooltip for the thinner component shows a range of 10,00% - 20,00%.

		%	g	ml
Primer	MULTI USE FILLER HS	69,16	885,2	553,3
Hardener	PLUS HARDENER P25 - 0,50	13,84	994,3	664,0
Thinner	PLUS REDUCER FAST - 1,00	17,00	1.115,2	800,0

Figure1

Sale value

To compose the selling price, the system considers:

- price of components
- tax value
- profit margin value
- customer profile

The amount of taxes is the value from the *register of the components percentages* of the system. It should also be noted that the tax values could increase or decrease the final price of the formula, according to the sign of the tax.

The profit margin value is also the value set in the *register of complements percentages*. This value is unique, not depending on the product line.

The customer profile enters in the calculation as a multiplicative factor of the complement price, according to the profile of the selected customer.

Note that the client profile is configured for all complements.

Favorite (F8)

The favorite complements creating function allows to be stored the selected composition for a given complement. Clicking on the <Favorite> button (or pressing F8) in the query screen appears a screen asking for a name for the ratio that will be saved, as illustrated in the example in the following figure:

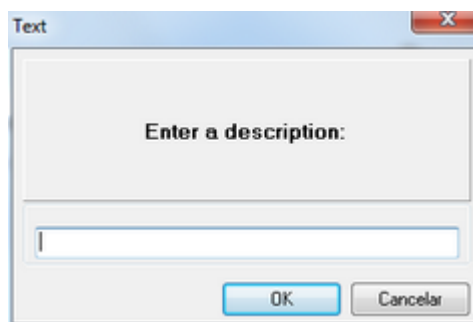



Figure: window for description of the ratio

2.3.3 Producing a formula

The formula production can be performed in one of the following forms:

1 – Scheduled production

In this production form, the formulas to be produced are selected from the production window, by selecting the formula and clicking the production function button  (or through the function key F7).

2 – Direct production

In this form of production, the production function is called from the information window about color, clicking the <Mix> (or through the function key F7), according to highlights in the following figure:

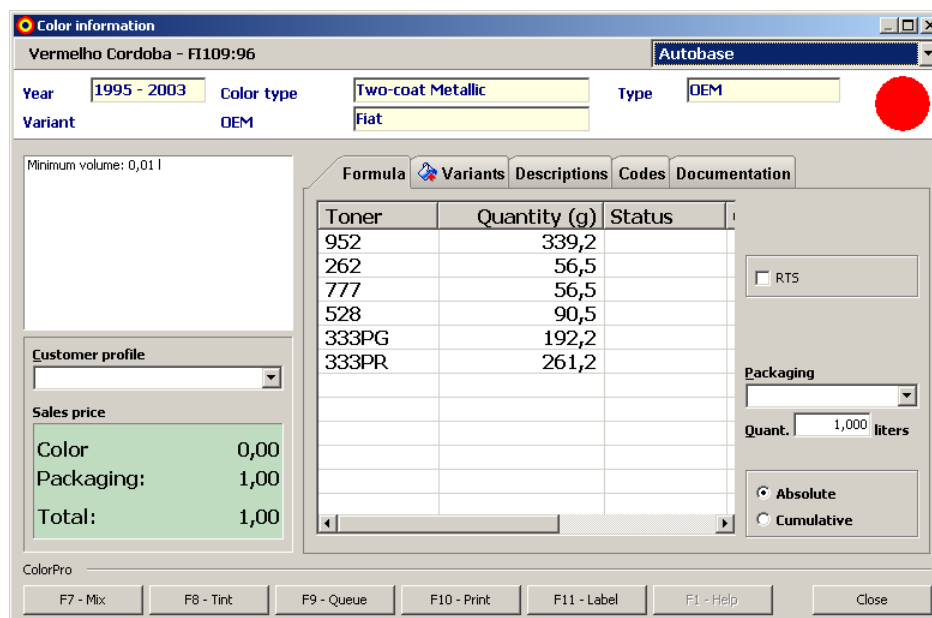


Figure: producing a formula directly

Procedure to produce a formula

Before producing a formula it must be defined:

- What amount to be produced;

- If the formula to be produced will be ready to use;

The amount to be produced is informed in the Amount field or selecting a package model in the combo <Package>. *Important: the package options available will depend on the settings of the package registration, as well as the models available by Akzo to the line in which is being produced.* The default volume to be produced is of 1L and, when this amount is changed, the system recalculates the amounts of each base component of the formula.

The field *Ready to use*, when marked, makes the system to recalculate the formula composition, considering the addition of the component necessary to the formula complement. *Note: according to the formula line to be produced, the selection may not be enabled.* The following figure illustrates, comparatively, the compositions (original) and the one obtained after the selection of the field *Ready to use*.

Toner	Quantity (g)	Status
952	339,2	
262	56,5	
777	56,5	
528	90,5	
333PG	192,2	
333PR	261,2	

RTS ☐

Packaging: [dropdown]

Quant. 1,000 liters

☒ Absolute
☐ Cumulative

Toner	Quantity (g)	Status
952	162,9	
262	27,1	
777	27,1	
528	43,4	
333PG	92,3	
333PR	125,4	
123	478,3	

RTS ☒

Packaging: [dropdown]

Quant. 1,000 liters

☒ Absolute
☐ Cumulative

Figure: marking the field Ready to use

In addition to the amount (volume) to be produced and if the formula will be ready to use, the original formula composition can be changed to create a new formula. This will be further explained in the function <Dye>.

Immediately after calling the production function, the system performs a search in the stock to check the availability of each one of the formula components. In case a restrictive situation is found, a warning window will be displayed, according to the example in the figure below:

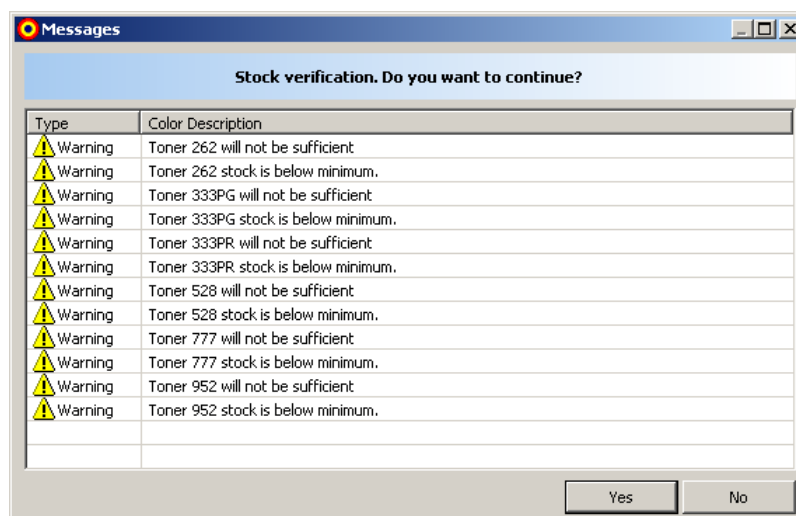


Figure: stock check message window

Note: in case the answer is <Yes> to the stock check message, the bases in which the amounts before production were not enough, will start to present negative amount values in the stock. The following figure illustrates an example of this situation:

Selected	Code	Color Description	List	Discount (%)	Cost	Status	Stock	Minimum	Liters	Packaging
✓	334ZA	PEARL BLACK 334ZA	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	333PB	PEARL COAT BLUE 333PB	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	333PG	PEARL COAT GOLD 333PG	0,00	0,00	0,00	Actual	-1,22	0,00	-1,22 l	1,00 l
✓	333PR	PEARL COAT RED 333PR	0,00	0,00	0,00	Actual	-1,66	0,00	-1,66 l	1,00 l
✓	333P	PEARL COAT WHITE 333P	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	334RB	RED BROWN PEARL 334RB	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	530	RED BROWN TRANSP. 530	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	528	RED MARRON TRANSP. 528	0,00	0,00	0,00	Actual	-0,57	0,00	-0,57 l	1,00 l
✓	332SA	RED MICA 332SA	0,00	0,00	0,00	Actual			0,00 l	1,00 l
✓	360	RED OXIDE 360	0,00	0,00	0,00	Actual	-0,05	0,00	-0,05 l	1,00 l
✓	550	RED OXIDE 550	0,00	0,00	0,00	Actual			0,00 l	1,00 l

Figure: result of the production with insufficient stock

As follows, an explanation will be provided about the formula production window, illustrated through an example, in the figure below:

Mix
Vermelho Cordoba - FI109:96

Year: 1995 - 2003 Color type: Two-coat Metallic Type: OEM
Variant: OEM Fiat

Formula

Toner	Quantity (g)	Status
952	339,2	
262	56,5	
777	56,5	
528	90,5	
333PG	192,2	
333PR	261,2	

Layer: Layer 1 ☒ Absolute ☐ Cumulative

1,000 liter

952

339,2

0 339,2 508,8

F8 - Tint Repair Order Sprayer Next Cancel

Figure: formula production window

Elements of the production window

The production window has several information fields, as well as visual elements, explained below.

Header

In the header there are general information about the formula that is being produced, such as identification, product line, version, and others. The existing fields here are only available for reference, and cannot be changed.

Composition

In this area all the formula *current layer* bases are listed. To each base, the code and the respective amount to be weighed are listed (expressed in grams). The display form of the base amounts will depend on the selection of the field *absolute/accumulated*, in which default value is absolute. In the *absolute* mode, each base appears with the individual amount to be weighed, and in the *accumulated* mode, from the second base the total accumulated to each base component are shown.

Display

The display is composed of three fields: the display field of the paint *volume* to be produced, *the current base code* (i.e., *which is being weighed at the moment*) and *the weighed value*. **Obs: the operation of the weighed value field varies according to the system settings.** This will be further explained. The following figure illustrates the fields mentioned:

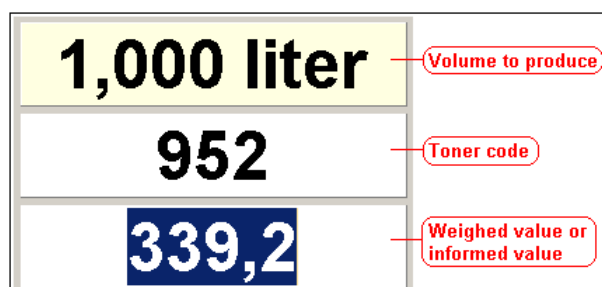


Figure: display

As previously mentioned, the operation of the field (weighed value), will depend on settings of the system, as there is or not a scale connected to the system.

[No Scale]

If there is no scale connected to the system, the field (weighed value) will be open to enter the weighed value

[With Scale]

In this case, the field (weighed value) will be closed to typing and will display the value read in the scale. Herein, however, we have two forms for displaying this value (according to settings):

- "With tare", i.e., the display with indication of weighed value in the scale starts with zero and goes up to the value to the component that is being weighed;
- "Without tare", i.e., the display with indication of the weighed value in the scale starts with the value to the component and goes down to zero.

Graphic bar

This is an element of visual aid to indicate how low, high or accurate is the amount to be weighed, in relation to the weigh objective value of the current component. The following figure illustrates through an example the visual indications obtained and their meaning:

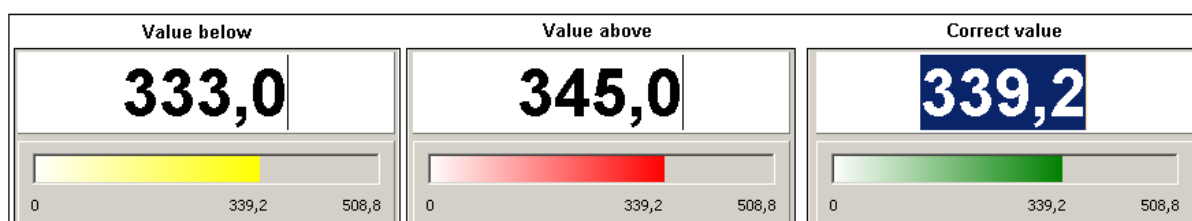


Figure: graphic bar

Perform weighing

The production window operation is extremely simple. Basically, the <Next> button is used to inform the system about the weighing of the next layer component, when the components finish being weighed of a layer, the next bases to be weighed will be displayed, repeating the process until the last existing layer.

The weighing starts by the first layer of the formula, identified in the <layer> field as layer 1. In order to register a component, click the <Next> button. The system, then, marks the lateral of the base weighed and prepares to weigh the next component. A comment: according to previous explanation, if the balance is not connected, the field <weighed value> will be open to typing, but *will suggest the*

amount to be weighed. The following figure illustrates the situation, highlighting in the weighing window the elements mentioned:

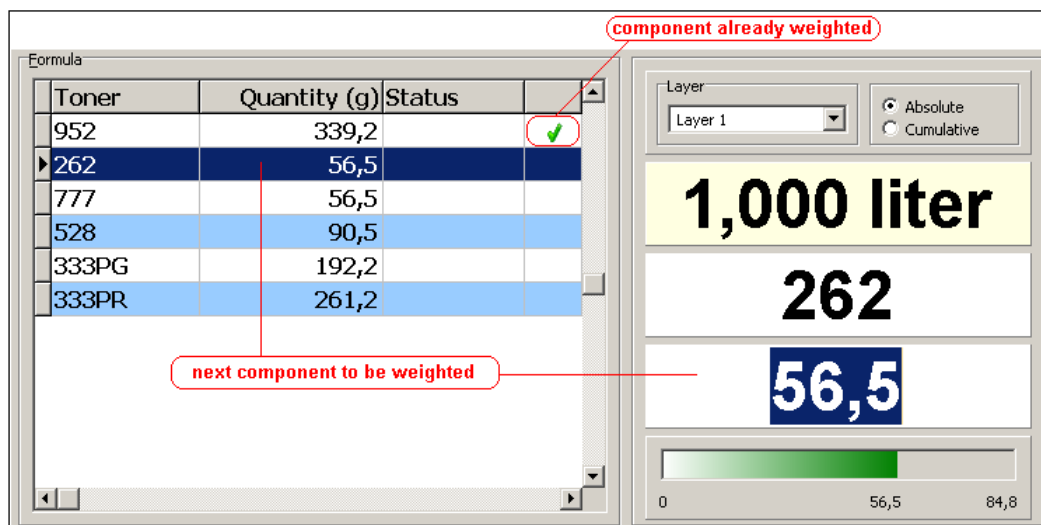


Figure: weighing sequence

When the last component of the current layer has been weighed, in case there are more layers to be weighed, the system will display a warning message to alert the operator about the beginning of component weighing of the next layer, as illustrated in the following figure:

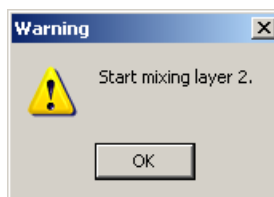


Figure: warning message on the beginning of mixture of the next layer

When the last component of the *last layer has been weighed*, you should click the <OK> button to confirm the weighing and complete the process. With confirmation, the formula *status* will become *produced* and the weighed components stock will be wrote off.

Recalculation function

It might occur, during weighing, that the amount of component added to the balance surpasses the expected amount (i.e., the *target* amount) that should be weighed. In this case, after clicking the <Next> button (which is enabled when the value read from the balance or informed by the operator), is equal or superior RO the target amount) the following message will be displayed by the program:

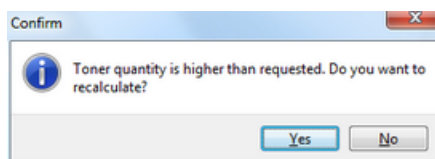


Figure: recalculation message

According to the answer given by the operator we will have the following possibilities:

- If the answer is *Yes*, i.e., that the recalculation must be performed, then, the amount of each component will be recalculated, and the bases already weighed (with the exception of the base in which the amount has been surpassed) must be weighed again, with the new values informed in the components' grid. The grid cursor will be positioned automatically in the first component to be weighed. If, to any component, the amount to be weighed is higher the one expected, again a warning message will be displayed regarding the need for a recalculation.
- If the answer is *No*, i.e., that the recalculation should not be performed, then, all amounts informed, that are equal or superior to the ones expected will be accepted, and of the component which quality has been surpassed, and resulted in the message display, even when there are values higher than the objective, no message will be displayed.

The following figures illustrate through an example, the situation exposed. In the next figure (1) we have six bases composing layer 1 of a given formula. Let's suppose the first base would be weighed correctly:

Toner	Quantity (g)	Status	
952	339,2		✓
▶ 262	56,5		
777	56,5		
528	90,5		
333PG	192,2		
333PR	261,2		

Figure 1

The next amount to be weighed should be (according to previous figure) 56.5g of base 262. As an example, the amount was surpassed and the value effectively read in the balance (or informed by the operator) was 57.5g. When the operator clicked the <Next> button, the warning message of the need for recalculation would be displayed. If the operator answers *Yes*, all values (with exception of the base surpassed) would be recalculated, according to the figure (2) below:

Toner	Quantity (g)	Status	
▶ 952	5,8		
262	0,0		✓
777	57,5		
528	92,0		
333PG	195,5		
333PR	265,7		

Figure 2

Note the figure above that all other bases had their amounts changed. In the situation above, the operator should weigh again a new amount of the first base (952, of figure 2), and as follows, weigh other bases (777, 528, 333PG and 333PR). If, to some of them, again the amount weigh surpasses

the objective amount, the warning message about recalculation would be displayed, thus, successively. If at any given moment, the operator answers that the recalculation should not be performed, then, as of such moment, any value higher or equal to the objective would be accepted.

At the end of production, the system will ask the user if he wishes to print the label, since the system preferences settings are defined accordingly. In case the formula produced has dilution, a message will be displayed, according to the illustration in figure 3 below:

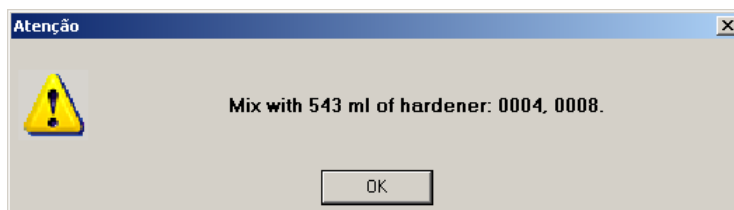


Figure 3

Dye (F8)

The dye function allows to change the composition of a given formula, before producing it; creating or not a new formula. By clicking the <Dye> button (or pressing F8) the dye screen will appear in the production screen, as shown in the figure below:

	Toner	Quantity (g)
1	952	339,200
2	262	56,500
3	777	56,500
4	528	90,500
5	333PG	192,200
6	333PR	261,200
7		
8		
9		
10		
11		
12		

Figure: dye window

The amounts of each one of the bases can be changed, and a description for the formula should be informed. By clicking the <OK> button, the system will ask if the changes made should be saved as a (new) own formula.

Note:

Eventually, when a process is finished, the system will be able to display a message of the amount of some of the bases present in the composition of the layer is very small, *in relation to the layer total*, according to the figure below:



Figure: inadequate amount message

This may happen, because when the formula layer composition data is saved, the system performs a calculation to determine the participation percentage of each base in the layer composition. If the amount informed for a specific base result in a participation percentage lower than the minimum accepted by the system, the message will be displayed. In order to solve this situation, the amount of base indicated by the system must be increased.

Service Order

Inform the service order regarding them mixture performed.

Note: this option must be set in the <Settings> option accessed through the main menu <Systems>.

Painter


Select painter

Note: this option must be set in the <Settings> option accessed through the main menu <Systems>.

2.3.4 Producing a complement

The production of complement can be accomplished in one of two ways:

1 - Scheduled Production

In this form of production, the complements to be produced are selected from the production window, selecting the complement and by clicking on the production function Access button  (or via the F7 function key).

2 - Direct Production

In this form of production, the production function is called from the complement information window by clicking on the <Mix> button (or via the F7 function key), as highlighted in the following figure:

Ancillaries information

MULTI USE FILLER HS

Code: 485.06006.62 Type: Primer

Minimum volume: 0,008 l
VOC: 807,1 g/l
VOC emission: 807,1 g

Formula

Quant.: 1,000 liters ☒ Absolute ☐ Cumulative

Ratio: 5:1+20% - Metal

		%	g	ml
Primer	MULTI USE FILLER HS	71,42	1.142,7	714,2
Hardener	PLUS HARDENER P25 - 0,50	14,29	140,8	142,9
Thinner	PLUS REDUCER FAST - 1,00	14,29	127,0	142,9

Sales price

Total: 0,00

ColorPro

F7 - Mix F8 - Favorite F9 - Queue F10 - Print F11 - Label Close

Figure: producing directly a complement

Procedure to produce a complement

Before producing, a supplement must be defined:

- How much to be produced;
- How proportion ratio will be used;
- What components will be used;

The quantity to be produced is reported in the Quantity field (Qty.). The default volume to be produced is 1L and to be changed this amount, the system recalculates the amounts of each component of the formula.

The field Ratio, when selected, it causes the system to enable the components necessary for production. The following figure illustrates comparatively the compositions after selecting different Ratios.

Quant.: 1,000 liters ☒ Absolute ☐ Cumulative

Ratio: 5:1+20% - Metal

		%	g	ml
Primer	MULTI USE FILLER HS	71,42	1.142,7	714,2
Hardener	PLUS HARDENER P25 - 0,50	14,29	140,8	142,9
Thinner	PLUS REDUCER FAST - 1,00	14,29	127,0	142,9

Quant. 1,000 liters ☒ Absolute ☐ Cumulative

Ratio 5:1+20% - Plástico

		%	g	ml
Primer	MULTI USE FILLER HS	47,61	761,8	476,1
Hardener	PLUS HARDENER P25 - 0,50	14,29	140,8	142,9
Thinner	PLUS REDUCER FAST - 1,00	14,29	127,0	142,9
Flex additive for	ELAST-O-ACTIF 1L - 1,00 l	23,81	231,0	238,1

Figure: changing the selection ratio

In addition to the amount (volume) being produced, it can change the composition of the original complement and create a favorite complement. This will be explained later in the <Favorite> function.

Immediately after being called the production function, the system performs a search in the stock to check the availability of each one of the complement components. If you find any restrictive situation, a warning window will appear as the example illustrated in the following figure:

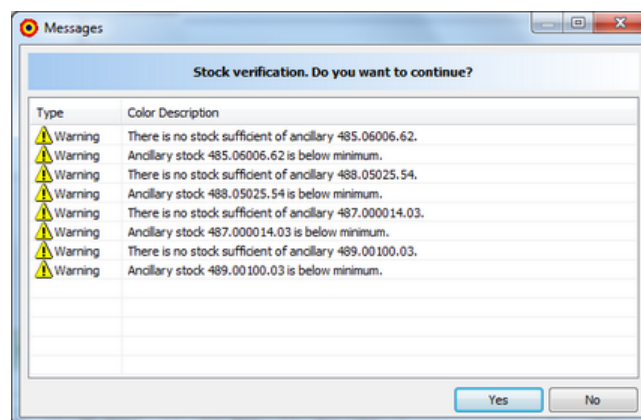


Figure: Message window of inventory check

Note: If the answer is <Yes> to the message of inventory verification, the components in quantities before production was insufficient and it will feature negative amount values in the inventory. The following figure illustrates an example of this situation:

Code	Name	Type	List	Cost	Stock	Minimum	Liters	Packaging
485.06006.59	MULTI USE FILLER HS	Primer	54,00	54,00			0,00 l	1,00 l
485.06006.62	MULTI USE FILLER HS	Primer	21,00	21,00	-0,48		-1,43 l	3,00 l
487.00002.15	PLUS REDUCER MEDIUM	Thinner	54,00	54,00	-0,02		-0,11 l	5,00 l
487.00003.15	PLUS REDUCER SLOW	Thinner	21,00	21,00			0,00 l	5,00 l
488.04003.03	AUTOCLEAR 1L	Clearcoat	0,00	0,00	-0,39		-0,39 l	1,00 l
488.05025.54	PLUS HARDENER P25	Hardener	21,00	21,00	-1,25		-0,62 l	0,50 l
488.05035.54	PLUS HARDENER P35	Hardener	0,00	0,00			0,00 l	0,50 l
488.06000.03	AUTOCLEAR PLUS	Clearcoat	0,00	0,00			0,00 l	1,00 l
489.00100.03	ELAST-O-ACTIF 1L	Flex additive	12,00	12,00	-0,48		-0,48 l	1,00 l
488.04003.15	AUTOCLEAR	Clearcoat	0,00	0,00			0,00 l	5,00 l
1	AE60 ACID-ETCH WASHPRIMER	Others	0,00	0,00			0,00 l	3,79 l

Figure: production output with insufficient inventory

Next will be explained the complement production window, illustrated by an example in the following figure:

Figure: complement production window

Elements of the production window

The production window has several fields of information, as well as visual elements, explained below.

Heading

In the heading, there are the general information on the complement being produced: Code, Description and Type of the Complement. Existing fields here are only for reference and cannot be changed.

Composition

This area lists all the components of the complement. For each component, there are listed the code and the amount thereof to be weighed (in grams). The way to display the quantities of component values will depend on the selection *absolute/accumulated field, which defaults to absolute*. In *absolute mode*, each component appears with the individual quantity to be weighed, and in *accumulated mode*, from the second component are displayed cumulative totals to each component.

Display

The display consists of three fields: the display field of *volume* of component to be produced, the code of the current base (*i.e., being weighed at the time*), and the *weighing value*. **Note: the operation of heavy field value varies depending on the system configuration.** This will be explained below. The following figure illustrates the above fields:

Figure: display

As stated earlier, the operation field (weighted value) will depend on the system configuration, such as whether or not a scale connected to the system.

[No balance]

If there is no balance connected to the system, the field (weighing value) will open for entering the weighing value.

[With balance]

In this case, the field (weighing value) will be closed to entry and will display the value read from the balance. Here, however, we have two ways to display this value (as configured):

- "With tare", namely the display indicating the weighted value on the scale starts at zero and goes up to the value for the component being weighed;
- "Without tare", namely the display indicating the weighted value on the scale starts with the value for the component and goes to zero.

Graph bar

This is a visual aid element for the indication of how the amount to be weighed is below, above or correctly adjusted in relation to the objective value of the current component weighing. The following figure illustrates by way of example those obtained visual cues and their meaning:

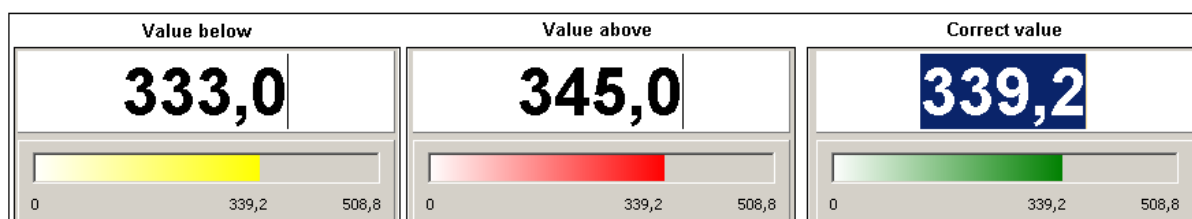


Figure: graph bar

Making the weighing

The operation of the production window is extremely simple. It uses the <Next> button to inform the system to weigh the next component of complement.

Weighing begins with the first layer of the formula identified in the <layer> fields as *Layer 1*. To register a component, clicked on the <Next> button. The system then puts a check mark next to the base that was weighed, and prepare the next component to be weighed. Here it is a comment: as already explained, if there is no balance connected the <weighing value> field will be open for typing, but *will suggest the quantity to be weighed*. The following figure illustrates the situation, highlighting in the weighing window the above elements:

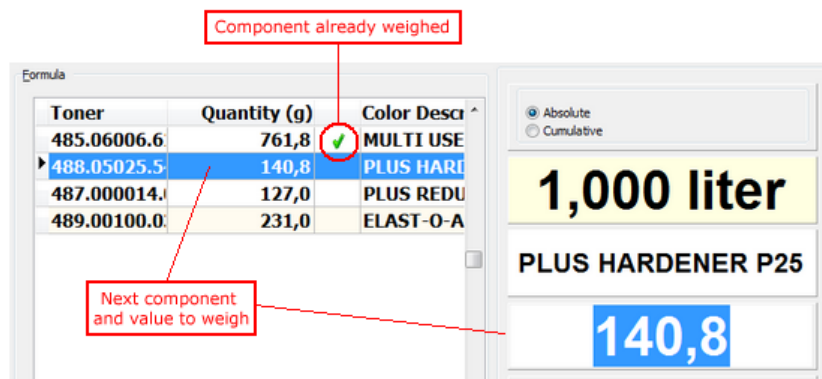


Figure: weighing sequence

When the last component has been weighted, you must click on <OK> button to confirm the weighing and complete the process. With the confirmation, the *status* of the formula will pass to *produce* and will be performed at low inventory of weighed components.

The recalculation function

It may occur at the time of weighing, when the amount of component that has been added to the balance exceeds the expected quantity (that is the *objective quantity*) that should be weighed. In this case, after clicking the <Next> button [which is enabled when the value read from the balance (or informed by the operator), is equal to or *greater* than the objective value] displays the following message in the program:

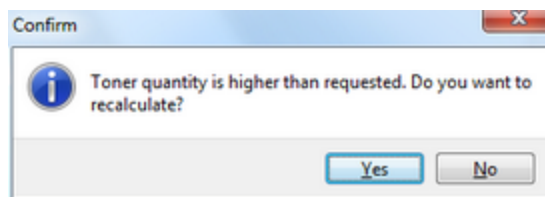
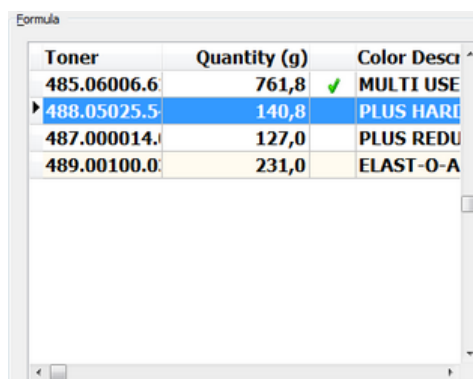


Figure: recalculation message

As the answer given by the operator, we will have the following possibilities:

- If the answer is *yes*, that is it must be made the recalculation, then the amounts of each component will be recalculated, and the components already weighed (except for the component whose amount has been exceeded) should be weighed again, with the new amounts reported on the components grid. The grid cursor is automatically positioned on the first component to be weighed. If, for any component, the quantity to be weighed is higher than expected, the warning message of the need for recalculation will display again.
- If the answer is *no*, that is, that should not be made the recalculation, then all amounts reported, which are equal to or *greater* than those provided will be accepted, and, from the component whose amount was exceeded, and caused the display warning, even though there are higher values than the objective, no messages appear.

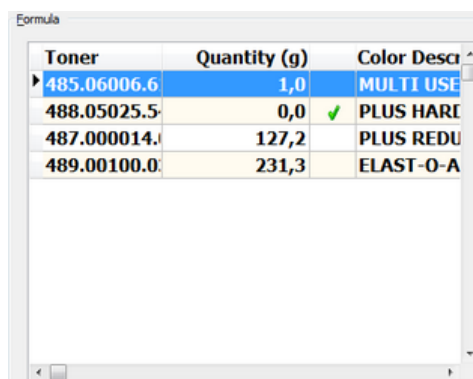
The following figures illustrate by way of example, the situation described. In the figure (1), the following are four constituent components of the composition of a complement. Let us assume that the first component had been weighted properly:



Toner	Quantity (g)	Color Descr
485.06006.6	761,8	MULTI USE
488.05025.5	140,8	PLUS HARI
487.000014.	127,0	PLUS REDU
489.00100.0	231,0	ELAST-O-A

Figure 1

The next quantity to be weighed should be (according to the illustration above) 140.8g of the component *PLUS HARDENDER P25*. Let us assume, for example, that the amount was exceeded and the effectively value read on the balance (or informed by the operator) was 141.0g. When the operator clicks the <Next> button, the warning message of need of recalculation would be displayed. If the operator answered yes, all values (except the outdated base) would be recalculated, as shown in figure (2) below:



Toner	Quantity (g)	Color Descr
485.06006.6	1,0	MULTI USE
488.05025.5	0,0	PLUS HARI
487.000014.	127,2	PLUS REDU
489.00100.0	231,3	ELAST-O-A

Figure 2

Notice in the figure above that all other bases have changed their amounts. In the above situation, the operator should reweigh a new amount of the first component (*MULTI USE FILLER HS*, figure 2), and then weigh the other components (*PLUS REDUCER FAST* and *ELAST-O-ACTIF*). If, for any of them, the weighted value exceeds again the amount *objective*, the recalculation-warning message would be displayed again and so on. If in a given moment, the operator replied that *should not be made the recalculation*, then, from this moment, any value greater than or equal to the goal would be accepted.

At the end of production, the system will ask the user whether he wants to print the label, since the *System Preferences* setting is set as well.

Service Order

Inform the service order in respect of the performed mixture

Note: This option must be set in the <Configuration> option accessed through the main menu <System>

Painter

Select the painter

Note: This option must be set in the <Configuration> option accessed through the main menu <System>

2.3.5 Recording production

The production registration function allows performing automatic write off of the formula components and the status change to *produced*. It is a fast way to produce a formula, without going through the weighing process, in which each component of the formula must be weighed individually. When selecting this option, the system will request a conformation, through a message, as illustrated below:

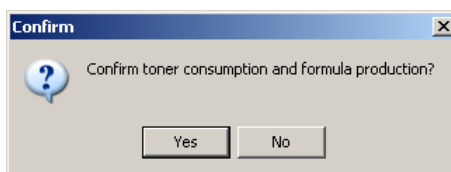


Figure: confirmation message for automatic write off of stock / production registration

In case the options <use service order number> e <use painter> are selected in System Settings the following screen will be displayed to show information about options:

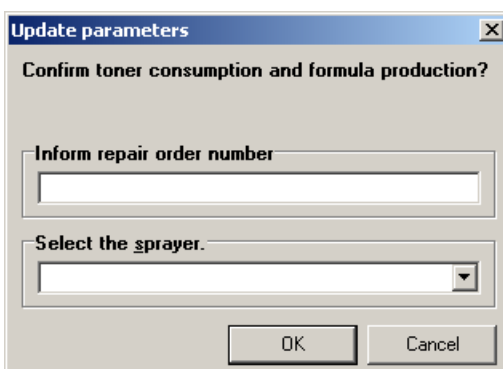


Figure: Parameters to write off the automatic stock/ production registration

After informing the service order and the painter click the <Ok> button and a confirmation message will be displayed.

2.3.6 Printing ancillary composition

The print function is used to print the composition of a complement. The following figure illustrates, by an example, the complement information window, which was highlighted the <Print> button:

Ancillaries information

MULTI USE FILLER HS

Code: 485.06006.62 Type: Primer

Minimum volume: 0,008 l
VOC: 569,0 g/l
VOC emission: 569,0 g

Formula

Quant.: 1,000 liters ☒ Absolute ☐ Cumulative

Ratio: 5:1+20% - Plástico

		%	g	ml
Primer	MULTI USE FILLER HS	47,61	761,8	476,1
Hardener	PLUS HARDENER P25 - 0,50	14,29	140,8	142,9
Thinner	PLUS REDUCER FAST - 1,00	14,29	127,0	142,9
Flex additive for	ELAST-O-ACTIF 1L - 1,00 l	23,81	231,0	238,1

Sales price
Total: 12,46

ColorPro

F7 - Mix F8 - Favorite F9 - Queue **F10 - Print** F11 - Label Close

Figure: access button to the print function

When you select it will appear on the screen a sample of the complement composition report, which may be directed to the printer. The following figure illustrates, by an example, the complement composition report:

Ancillary composition
Acabit

Type: Primer
Ratio: 5:1+20% - Plástico
Volume: 1,000 liters

Code	Color Description	Volume	Cumulative
485.06006.62	MULTI USE FILLER HS	761,8	761,8
488.05025.54	PLUS HARDENER P25	140,8	902,6
487.000014.03	PLUS REDUCER FAST	127,0	1.029,6
489.00100.03	ELAST-O-ACTIF 1L	231,0	1.260,6

Cost Price: 10,38 Retail Price: 12,46

Figure: printed of the complement composition

2.3.7 Printing formula composition

The printing function is used to print the composition of a given formula. The following figure illustrates through an example, the information window about color, in which the <Print> button was highlighted:

Color information

Canyon Red - BMW9446

Autobase

Year: 1995 - 1999 Color type: Two-coat Pearl Type: OEM

Variant: OEM

Minimum volume: 0,01 l

Formula Variants Descriptions Codes Documentation

Toner	Quantity (g)	Status
538	231,5	
333PG	49,6	
400	66,1	
971	82,7	
528	99,2	
530	219,9	
333PR	223,2	

Customer profile

Sales price

Color	0,00
Packaging:	1,00
Total:	1,00

Packaging

Quant. 1,000 liters

RTS

Absolute Cumulative

ColorPro

F7 - Mix F8 - Tint F9 - Queue F10 - Print F11 - Label F1 - Help Close

Figure: button to access the printing function

When selected, a sample of the formula composition report will be displayed in the screen, which can be directed to the print. The following figure illustrates the formula composition report:


 Formula composition Acabit			
Product:	Autobase		
Code:	BMW9446		
Color:	Canyon Red - BMW 1995 - 1999		
Volume:	1,000 liters		
Layer 1			
Code	Color Description	Volume	Cumulative
538	BRIGHT MARRON TRANSP. 538	231,5	231,5
333PG	PEARL COAT GOLD 333PG	49,6	281,1
400	DEEP BLACK 400	66,1	347,2
971	VIOLET TRANSPARENT 971	82,7	429,9
528	RED MARRON TRANSP. 528	99,2	529,1
530	RED BROWN TRANSP. 530	219,9	749,0
333PR	PEARL COAT RED 333PR	223,2	972,2
Cost Price: 1,00		Retail Price: 1,00	

Figure: formula composition print

2.3.8 Printing the label

This function allows to print the formula label. The following figure illustrates, through an example, the printed label:

Wanda PU HS	Product line
Achatgruen, Solid	Description / Type
Mercedes Benz 1986 - 2006	OEM / Year
Cod DB815 P 09/2010 Vol 1,000 L	Akzo code / Validity / Volume
Acabit	

Figure: printed label

Notes:

1) In case there is more than one label in the formula composition, one label to each one of the existing layers will be printed.

2) In the formulas ready to use, a message indicating this condition will be printed in the label, according to the example illustrated in the figure below:

Wanda PU HS	
Achatgruen, Solid	
Mercedes Benz 1986 - 2006	READY FOR USE
Cod DB815 P 09/2010 Vol 1,280 L Dil 2:1	
Mix with 520 ml of hardener: 0004, 0008.	Instructions for productions
Acabit	

Figure: label of ready to use formula

2.3.9 Printing the ancillary label

This function allows you to print the complement label. The following figure illustrates, by an example, the printed label:

Primer	Type
MULTI USE FILLER HS	Description
VOC 569,0 g/l Raz 5:1+20% - Plástico	VOC / Ratio
Cod 485.06006.59 P 07/2014 Vol 1,000 L	Code / Production / Volume
<< COMPANY NAME >>	Company name
<< MESSAGE >>	Message

Figure: printed label

2.4 Database

This function of the <Colors> menu displays the information about the database:

- distribution code

- database version
- date of last update

The following figure illustrates, through an example, the information window about the color database:

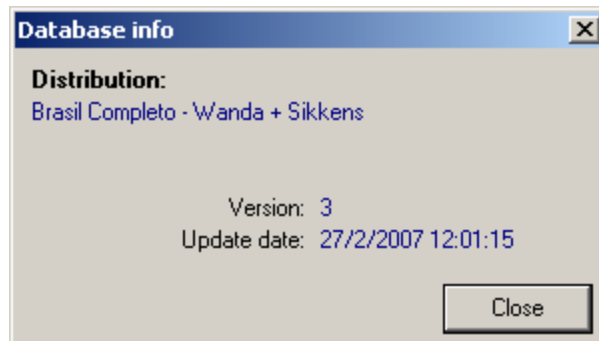
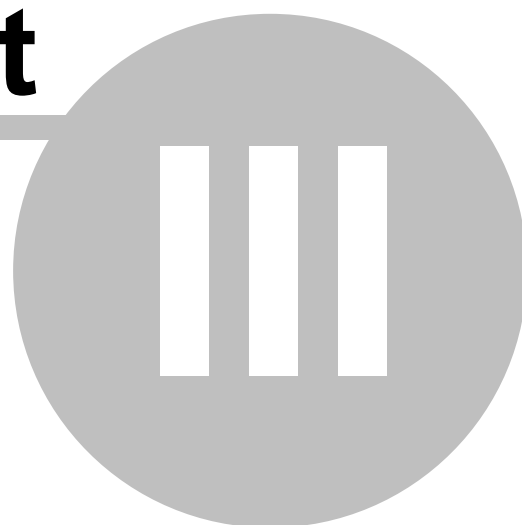


Figure: information window about database

Part



3 Registration

In this menu you will find system registrations grouped.

3.1 Registration of own formulas

The own formula registration is used to add new formulas, change formulas locally produced, view the composition of a specific own formula, export local formulas to other database and import formulas arising from other database. The following figure illustrates, through an example, the own formula window:

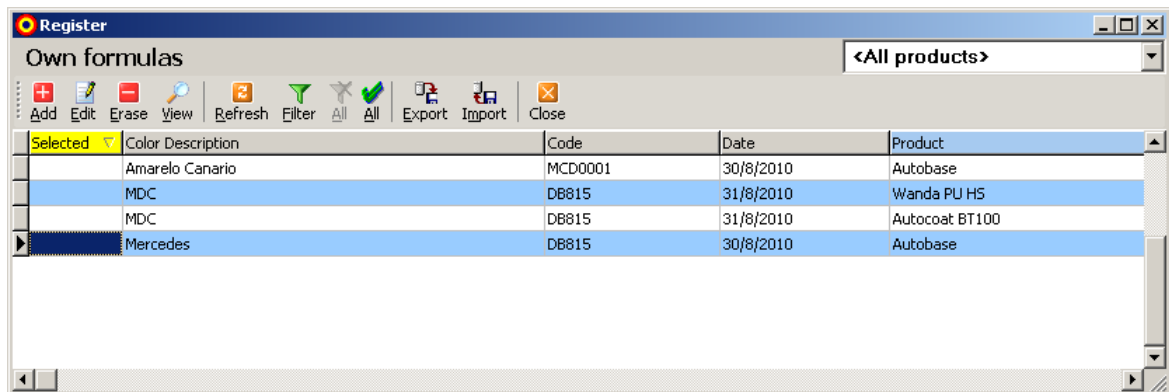


Figure: own formula window

Note: initially, the own formula window displays the formulas of all product lines, according to the default value of the line selection combo, located at the right superior corner of the window. In order to display the own formulas of a given line, just select the line desired in the combo. To return to the default display mode, select the option '<All lines>'.

Including own formula



The following figure illustrates the window to add a new own formula:

Figure: formula registration window

Registration procedure:

1. Inform the product line.

The own formula to be added in a specific product line. If the own formula window is displaying the formula of a specific line (to which was selected in the line selection combo), the field *Product*, will display, by default the selected line. This is just a suggestion to facilitate the formula registration, and this field can be changed, selecting some other existing line. In case the own formula window is displaying <All lines> (with this value in the line selection combo), then the product field will be displayed empty. In this case, select the desired line.

2. Inform the description of a formula in the field <Description>. Alphanumeric field.
3. Inform the registration date of a new formula. Note that the system suggests the *current date*.
4. Inform the formula composition.

Now you must inform the components of the formula. One formula is composed of one or more *layers*, and each layer can be composed of one or more bases. Initially, the window displays the first layer to be filled out (identified as *layer 1*). The composition of the formula must be performed informing the bases that will compose the layers and their respective amounts, which are expressed in grams (g).

Let's provide the following example:

Layer 1, comprising the following bases:

Basis 297 > 142.200 g
Basis 253 > 853.200 g

Layer 2, comprising the following bases:

Basis 261 > 565.600 g

Basis 267 > 404.100 g

The step sequence to introduce this composition would be:

- 1) Select the base 297 in the first combo, according to the following figure:

Composition	
Layer: Layer 1	
Toner	Quantity (g)
1 297	
2	

Figure: step 1

- 2) Inform the amount of base, in this case: 142.200 g:

Composition	
Layer: Layer 1	
Toner	Quantity (g)
1 297	142,200
2	

Figure: step 2

- 3) Select the second base of the composition (of layer 1):

Composition	
Layer: Layer 1	
Toner	Quantity (g)
1 297	142,200
2 253	

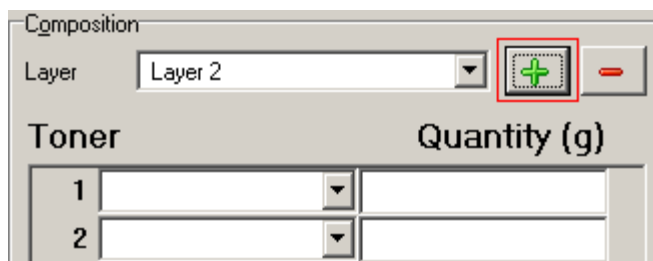
Figure: step 3

- 4) Inform the amount of this base, in this case: 853,200 g:

Composition	
Layer: Layer 1	
Toner	Quantity (g)
1 297	142,200
2 253	853,200

Figure: step 4

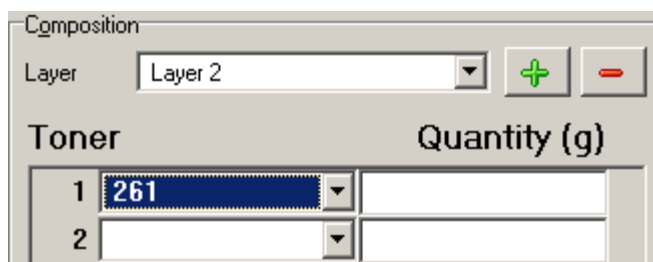
5) Let's inform the composition of the second layer, and in order to do that it is necessary to include it clicking the <Add> button, as illustrated in the following figure:



The screenshot shows a window titled "Composition". At the top, there is a "Layer" dropdown menu set to "Layer 2". To the right of the dropdown are two buttons: a green "+" button (Add) and a red "-" button (Remove). The "+" button is highlighted with a red rectangle. Below the Layer dropdown, there is a table with two columns: "Toner" and "Quantity (g)". The table has two rows. Row 1 has "1" in the "Toner" column and an empty dropdown menu. Row 2 has "2" in the "Toner" column and an empty dropdown menu.

Figure: step 5

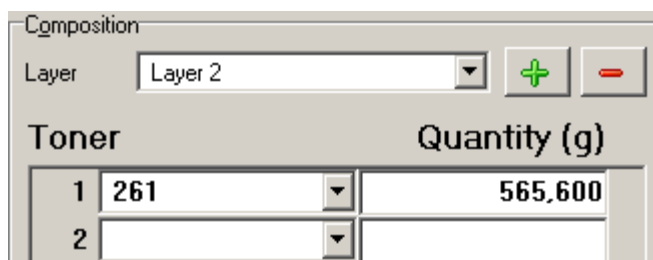
6) The field <composition> will be cleaned up so we can inform the composition of the new layer added (layer 2). Let's inform the first base of the layer 2:



The screenshot shows the same "Composition" window. The "Layer" dropdown is still "Layer 2". The "+" and "-" buttons are visible. In the table, row 1 now has "261" selected in the "Toner" dropdown menu. Row 2 still has an empty dropdown menu in the "Toner" column.

Figure: step 6

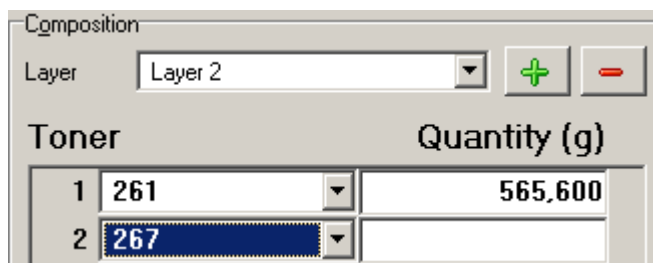
7) Inform the amount of the base, in this case: 565,600 g:



The screenshot shows the same "Composition" window. The "Layer" dropdown is still "Layer 2". The "+" and "-" buttons are visible. In the table, row 1 now has "261" selected in the "Toner" dropdown menu, and the "Quantity (g)" field next to it contains the value "565,600". Row 2 still has an empty dropdown menu in the "Toner" column.

Figure: step 7

8) select the second base of the composition (of the layer 2):



The screenshot shows the same "Composition" window. The "Layer" dropdown is still "Layer 2". The "+" and "-" buttons are visible. In the table, row 1 now has "261" selected in the "Toner" dropdown menu, and the "Quantity (g)" field next to it contains the value "565,600". Row 2 now has "267" selected in the "Toner" dropdown menu.

Figure: step 8

9) Inform the amount of the, in this case: 565,600 g:

Composition

Layer: Layer 2

Toner	Quantity (g)
1 261	565,600
2 267	404,100

Figure: step 9

Important:

As the bases are added, the equivalent volume (in liters) and the sale price of the formula are updated. These fields display the values (volume and price) rounded to two decimals. At the moment the formula is recorded, the system recalculates the necessary amounts for production of 1 liter of formula. The following figure illustrates the provided herein:

Informed Composition

Composition

Layer: Layer 1

Toner	Quantity (g)
1 297	1.422.000
2 253	8.532.000

10.00 liter Price: 17.16

+ Add - Delete

Recalculated Composition

Composition

Layer: Layer 1

Toner	Quantity (g)
1 297	142.200
2 253	853.200

1.00 liter Price: 2.96

+ Add - Delete

To the *Autobase Plus* line, the system adjusts the *Binder* amount necessary in order to balance the formula. In case the *Binder* has been added to the formula composition, the system will add it and calculate its amount, automatically.

Notes:

- use the <Remove> button to remove a base, when necessary;
- the area to introduce the composition displays, by default 12 fields for the bases, if necessary, use the <Add> button (located in the base field area) to add more fields to the bases.

**Changing a own formula**

Use the <Change> button to modify any information about the own formula.

Deleting a own formula

Use the <Delete> button to erase a own formula from the database. A confirmation message will be displayed.

Visualizing a own formula

Use the <View> button to refer to the information of a specific own formula.

Updating records list

Use <Update> key to updating all listed formula screen.

Filtering registrations

Use the <Filter> button to find a formula (or a group of formulas) in the database that meets specific search criteria: *code*, *registration date* and/or *description*.

Displaying all registrations

Use the <All> button to display all formulas registered, regardless newly-used filter criteria.

Mark all formulas

Use the <All> button to mark all formulas listed in the screen.

Exporting formulas

Use the <Export> button to call the formula export function.

Note: at least one formula must be marked so the export file can be generated.

Importing formulas

Use the <Import> button to call the formula import function of other database. A window will be displayed so the import file can be selected.

Access permission

The access to the formulas registration is controlled by the user profile logged in to the system, only allowing users with *management* profiles.

3.2 User registration

The users' registration is used to create and control the users with access to the system. The control of functions of the system a user can execute, is done through the profile of such user.

To access the users' registration, click the option <Users> of the <Registrations> menu of the main screen of the system. The following figure illustrates, through an example, the window of system users:

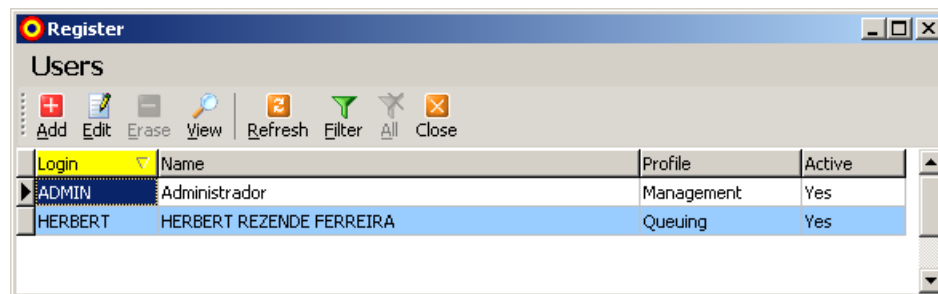


Figure: system user window

Note:

The window will display the registration entries that meet all the conditions of the current filter. To select all existing registration entries in this registration click the <All> button (or you can press the <T> key). This button will be enabled whenever there is a registration filter being used.

According to the following figure, the window displays a list of the users registered in the system. Each user has a *Login* (identification), an access password and a specific profile.

To add a new user, click the <Add> button in the button bar of the user registration window. (or you can press the (I) key). The following window will be displayed:

The screenshot shows a window titled 'User registration'. It contains several input fields: 'Login' (a text box), 'Name' (a text box), 'Password' (a text box), and 'Confirmation' (a text box). There is a checkbox labeled 'Active' which is checked. To the right of the password fields are three radio buttons for 'Profile': 'Management', 'Production' (which is selected), and 'Consultation'. At the bottom are 'OK' and 'Cancel' buttons.

Figure: user registration window

Login

Inform the user login (*identification*). An alphanumeric field of up to 20 characters. This field is *mandatory*.

Name

Inform the username. This field is *mandatory*. After logging in to the system, the main screen will display in its footnote the name of the current user.

Password

Inform the user's password. You can use letters and numbers. Note that the letters entered in CAPS ON will be different from letter entered in caps off: therefore, the password "HOME" will be different from the password "home". This field is *mandatory*.

Confirmation

Inform the user's password confirmation. You must inform the *same word* used in the field "password". Note that the same observation as the previous item goes here as well.

Profile

Select user's profile. User's profile determines to which system functions this user will have access permission. There are three profile options to a user:

- Management
- Production
- Query

Active

This field indicates the user status. By default, a user is added with the *Active* status. The access to the system will only be allowed to *Active* users.

In order to add a new user to the system, click the <Ok> button.

Searching for users

You can perform search on the database to find a specific user, or user group. In order to do that the registration filter function is used, which is accessed by clicking the <Filter> button from the user window buttons (or you can press the <F> key). The following figure illustrates the user filter window:

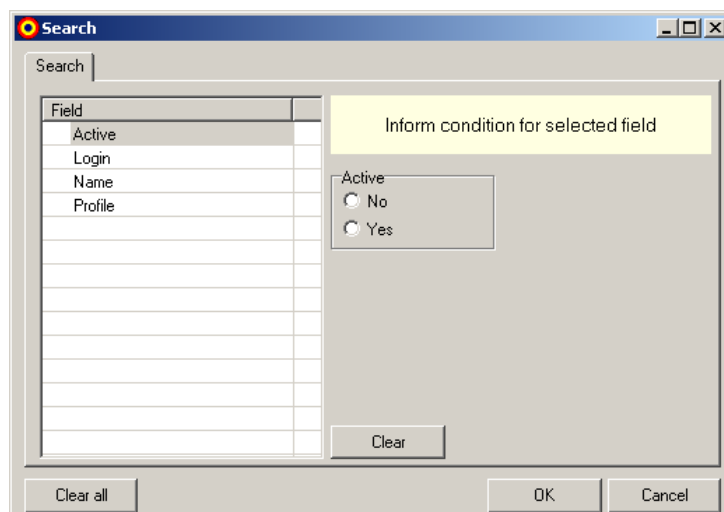


Figure: user filter window

For the user's registration following options are available for registration search:

- Active
- Login
- Name
- Profile

We illustrated the following operation of the user filter window, through the examples below:

Example 1

Let's say we want to find a user that has the following login: *PROD*

In order to do that we can follow the sequence below:

1. Select the field <Login> from the list of available fields;
2. Position the cursor in the field <Login> and type the word *PROD*;
3. Select the option <Exactly the same>;
4. Click the <Ok> button.

The user searched will be displayed.

Example 2

Let's say we want to find all users whose names are *José*

In order to do that we can follow the sequence below:

1. Select the field <Name> from the list of available fields;
2. Position the cursor in the field <Name> and type the word *José*;
3. Select the option <Starting with>;
4. Click the <Ok> button.

All employees whose names start with the word *José* will be displayed.

Tip: use the search option <Exactly the same> only if you are certain about the correct spelling of the name to be searched.

Example 3

Let's say we want to find all the users who have the *Production* profile. Note that the possible profiles of a user are well determined: *management or production*.

In order to do perform the sequence, follow the sequence below:

1. Select the field <Profile> from the list of available fields;
2. Mark (only) the <Production> box;
3. Click the <Ok> button.

All users whose profiles are *production* will be displayed.

In case *both options* were marked: *management and production*, the users with all the possible profiles would be listed.

Final note: in case the parameters for several fields are filled out, entries that meet all the search

criteria informed will be displayed.

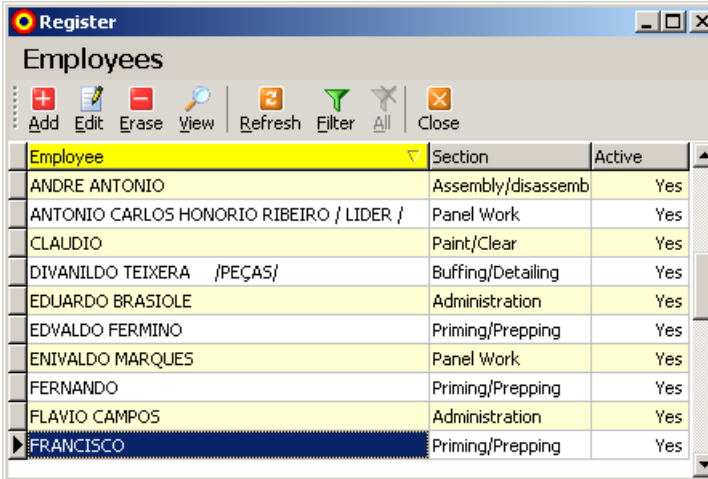
In order to clean up all the search criteria informed, click the <Clean all> button.

Access permission

The access to users' registration is controlled by the user profile logged in to the system, allowing only users with *management* profile.

3.3 Records of Employees

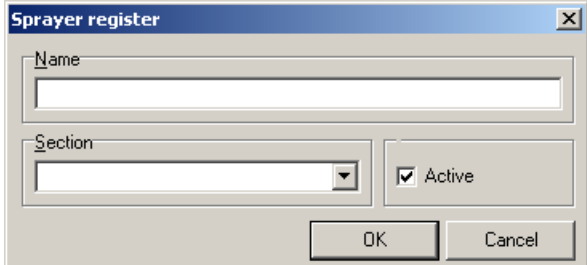
Records of employees are used to include new employees in the system. The following figure illustrates, by means of an example, employee window:



Employee	Section	Active
ANDRE ANTONIO	Assembly/disassemb	Yes
ANTONIO CARLOS HONORIO RIBEIRO / LIDER /	Panel Work	Yes
CLAUDIO	Paint/Clear	Yes
DIVANILDO TEIXERA /PEÇAS/	Buffing/Detailing	Yes
EDUARDO BRASIOLE	Administration	Yes
EDVALDO FERMINO	Priming/Prepping	Yes
ENIVALDO MARQUES	Panel Work	Yes
FERNANDO	Priming/Prepping	Yes
FLAVIO CAMPOS	Administration	Yes
FRANCISCO	Priming/Prepping	Yes

Figure: window of employees registered in the system

Including an employee 



Sprayer register

Name:

Section:

☒ Active

OK Cancel

Figure: window of employees records

Inform employee's name, select if it is active or not, and click in <Ok> to confirm records.

Changing records of an employee 

Use <Change> key to changing the name or employee situation.

Excluding records of an employee



Use <Eraser> key to delete an employee

Seeing records of an employee



Use <See> key to consulting an employee's name

Filtering logs



Use <Filter> key to finding an employee in database that meets determined search criteria: *Active, Name*

Showing all logs



Use <All> key to showing all employees registered by ignoring criteria of recently used filter.

3.4 Base registration

The base registration is used to add new bases in the system, define base prices, and control the stock and the amount of base packages.

To access the base registration, click the option <Bases> from the <Registration> menu in the system main screen. The following figure illustrates, through an example, the system bases window:

Selected	Code	Color Description	List	Discount (%)	Cost	Status	Stock	Minimum	Liters	Packaging
✓	00	WHITE 00	0,00	0,00	0,00	Actual	-0,34	0,00	-1,26	3,75
✓	101	WHITE TRANSP. 101	0,00	0,00	0,00	Actual	-0,47	0,00	-0,47	1,00
✓	123	THINNER 123	0,00	0,00	0,00	Actual	-2,39	0,00	-2,39	1,00
✓	123	THINNER 123	0,00	0,00	0,00	Actual			0,00	5,00
✓	253	DARK ORANGE 253	1,52	2,00	1,49	Actual	148,91	2,00	148,91	1,00
✓	259	RED OXIDE SEMI-TRANSP. 259	0,00	0,00	0,00	Actual	-0,29	0,00	-0,29	1,00
✓	261	BRIGHT BLUE TRANSPARENT 261	1,40	2,00	1,37	Actual	149,41	2,00	149,41	1,00
✓	262	RED TRANSPARENT 262	0,00	0,00	0,00	Actual	-0,91	0,00	-0,91	1,00
✓	267	YELLOW - GREEN TRANSPARENT	1,32	2,00	1,29	Actual	149,59	2,00	149,59	1,00
✓	297	LIGHT YELLOW 297	1,84	3,00	1,78	Actual	148,88	3,00	148,88	1,00

Figure: bases window

Note:

The window will display the entries of the registration that meet the conditions of the *current* filter. To select all existing entries click the <All> button (or you can press the <T> key). This button will be enabled whenever there is a registration filter being used.

According to the previous figure, to each item listed, visual indicators are displayed. We have two types of indicators:

- Stock level indicator
- Selected base indicator

The first indicator (stock level) will signal in red the stock values which amount is *less* than the *minimum* value defined to the base.

The second indicator (base source) will signal if this base had its registration performed by *Sikkens*. If that is the case, the indicator will be displayed, being placed in the third column of the base window grid.

Buttons

Change

To change a base click the <change> button from the button bar.

The following figure, illustrates through an example, the base change window:

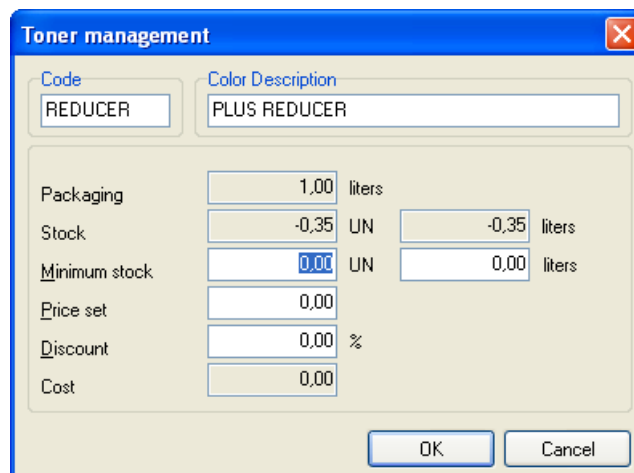


Figure: base change window

This screen allows you to change only the value of the minimum inventory (in units or liters), the list price of the base and the discount. After informing the values you wish to change, click the <ok> button.

The value informed in the discount field will serve as base in the calculation of sale price of a formula.

Note: in order to change any information of the base registration, it is necessary to be logged in to the manager profile.

View

In order to view information of a base click the <view> button from the button bar, and a screen will be displayed Just like the change base screen, only for view, no value changes are allowed.

Filter

You can perform this search in the database to find a specific product, or product group. In order to do that, the registration filter function is used, which is accessed by clicking the <Filter> button of the product window button bar (or you can press the <F> key). The following figure illustrates the employees' filter window:

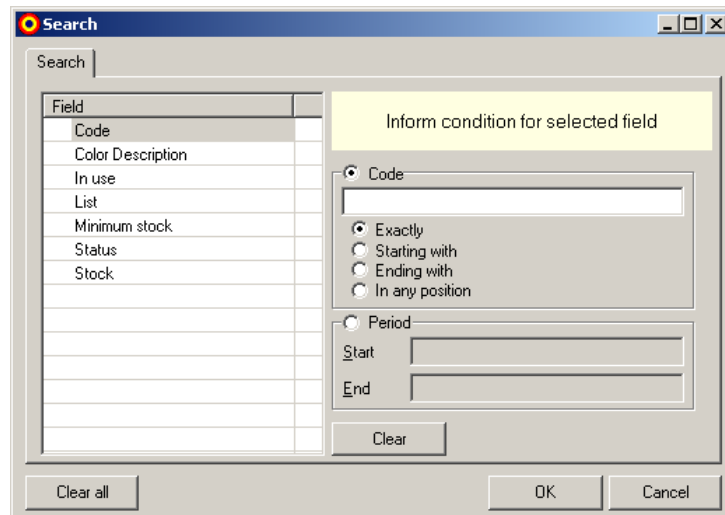


Figure: bases filter window

In order to register the bases, the following registration search options are available:

- Code
- Description
- In Use
- Stock
- Minimum Stock
- Status
- Table

After choosing one filter option, inform what you wish to find and click <ok> to confirm.

All

Select this option to select all base registrations.

Readjustment

In order to readjust the base cost values, select this option.

The following figure illustrates, through an example, the base readjustment window:

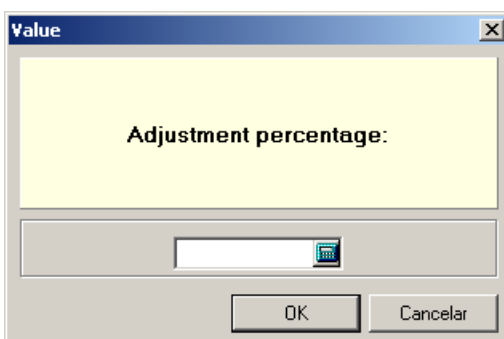


Figure: base cost readjustment window

Inform the value in % (percentage) and click <OK>, after performing this operation all base cost values registered will be readjusted according to the percentage indicated.

Movement

Select this option to see the inventory movement from the selected base.

The figure below illustrates, by way of example, the window moving base

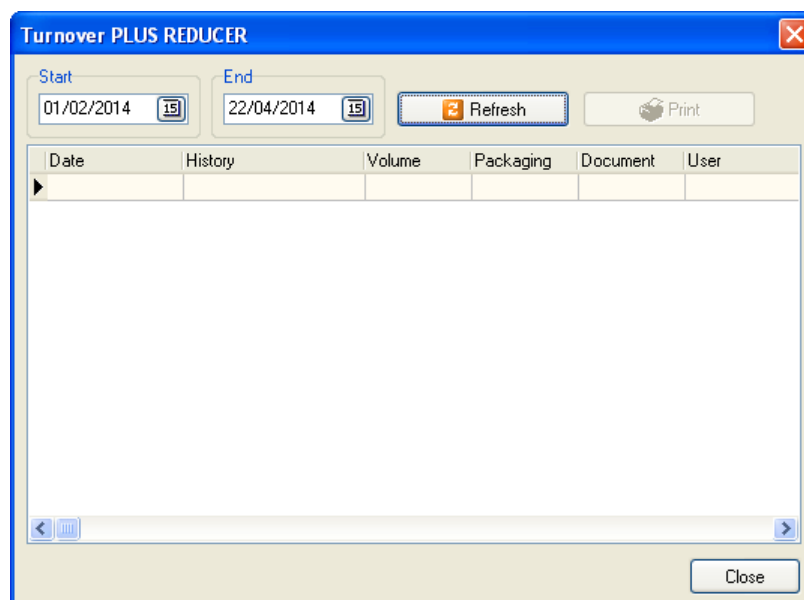


Figure: base inventory handling window

In this window select the period for consultation and click <Upgrade>, the following the data of inventory movement of base consulted are presented; for each movement a date is displayed, the history that indicates the type of movement, the bustling quantity (in units), packing in use of the base, the document number and the user responsible for moving. A negative amount indicates a departure from stock.

Launch

Select this option to launch bases.

The following figure illustrates, through an example, the base launching window:

The screenshot shows a 'Toner entries' window with the following fields and options:

- Product:** A dropdown menu showing 'Autobase'.
- Toner:** A dropdown menu showing '00'.
- History:** A group of radio buttons with options: Queuing, Inventory, Transfer, Loss, Re-stock, and Purchase. 'Purchase' is selected.
- Turnover:** A group of radio buttons with options: Input and Output. 'Input' is selected.
- Quantity (UN):** A text input field showing '0,00'.
- Invoice:** An empty text input field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Figure: base launching window

The launch can be:

- Input
- Output

With the following History options:

- Production
- Loss
- Inventory
- Reposition
- Transfer
- Purchase

The amount may be reported in units or in grams. For example, to register a purchase reported in units but in case of a loss can report in grams.

The cost of the base should be informed when treat yourself to a record entry base as a purchase, the outputs the cost will automatically be calculated by the average value of the stock of this base. Also note its [setting percentages](#) to launch the input value with or without taxes.

The purpose of the base launching is to control the inputs and outputs of stock base, and to each type of movement there is a history to be selected.

EX: When performing a base purchase, the following must be informed in the <History> the option <Purchase> and in <Movement> the option <Input>, in addition to inform the amount of this purchase and the invoice number.

3.5 Complement registration

The complement registration is used to control stock, define minimum work stock and perform adjusts in complement prices.

To access the complement registration, click the option <Complements> from the <Registration> menu in the system main screen. The following figure illustrates, through an example, the system complement window:

Sel...	Code	Name	Type	List	Cost	Stock	Minimum	Liters	Packaging
✓	487.00002.15	PLUS REDUCER MEDIUM	Thinner	54,00	56,70	-0,02		-0,11 l	
✓	487.00002.48	PLUS REDUCER MEDIUM	Thinner	12,00	12,60			0,00 l	2l
✓	487.00003.15	PLUS REDUCER SLOW	Thinner	21,00	22,05			0,00 l	
✓	488.04003.03	AUTOCLEAR 1L	Clearcoat	0,00	0,00	-0,39		-0,39 l	
✓	488.04003.15	AUTOCLEAR	Clearcoat	0,00	0,00			0,00 l	
✓	488.05015.03	PLUS HARDENER P15	Hardener	0,00	0,00			0,00 l	
✓	488.05025.54	PLUS HARDENER P25	Hardener	25,61	29,66	20,00	5,00	10,00 l	
✓	488.05035.54	PLUS HARDENER P35	Hardener	0,00	0,00			0,00 l	
✓	488.06000.03	AUTOCLEAR PLUS	Clearcoat	0,00	0,00			0,00 l	
✓	489.00100.03	BLAST-O-ACTIF 1L	Flex additive	12,00	12,60	-0,95		-0,95 l	

Figure: complements window

Note:

The window will display the data records that meet the *current* filter conditions. To select all records in this register click on <All> button (alternatively, you can press <T>). This button is enabled whenever there is any filtering of records being used.

As we can see in the figure above, for each item listed visual indicators are displayed. We have two types of indicators:

- Stock level indicator
- Packaging selected indicator

The first indicator (stock level) will sign with the red color stock values whose amount is *less* than the *minimum* value set for the complement.

The second indicator (selected package) will indicate which package for the complement is selected to be used, and purchased.

To include

The following figure illustrates, by means of an example, a window of to include complement:

The 'Ancillaries' window contains the following fields:

- Description: [Empty text box]
- System: [Priming/Prepping (dropdown menu)]
- Packaging: [0,00]
- Unit: [Empty dropdown menu]
- Stock control: [0,00] UN [0,00]
- Minimum stock: [0,00] UN [0,00]
- Price set: [0,00]
- Cost: [0,00]

Buttons: OK, Cancel

Figure: window of including complement

Change

The following figure illustrates, through an example, the change complement window:

The 'Ancillaries' window contains the following fields:

- Code: 488.05025.54
- Color Description: PLUS HARDENER P25
- Packaging: 0,50 I
- Stock control: 20,00 UN 10,00 I
- Minimum stock: 5,00 UN 2,50 I
- Price set: 25,61
- Cost: 29,66

Buttons: OK, Cancel

Figure: change complement window

Code

This field displays the complement code. This field is for reference only, and cannot be changed.

Description

This field displays the complement name. This field is for reference only, and cannot be changed.

Package

This field displays the complement package size. This field is for reference only, and cannot be changed.

Stock

Inform here the amount (in units, UN) available in complement stock. The field liters (I) will display the amount equivalent in liters.

Minimum stock

Inform here the *minimum* amount (in units, UN) of work that must be available in complement stock. The field liters (I) will display the amount equivalent in liters.

List price

Enter here the complement price of each unit without taxes.

Cost price

This field displays the complement cost price; this price is calculated by applying the tax to the complement list price. This field is for reference only, and cannot be changed. Observe your percentages configuration to the release of the table value with or without taxes.

Searching for complements

You can perform search in the database to find a specific complement, or complement group. In order to do that, a registration filter function is used, which is accessed by clicking the <Filter> button in the button bar of the complement window (or you can press the <F> key). The following figure illustrates the complement filter window:

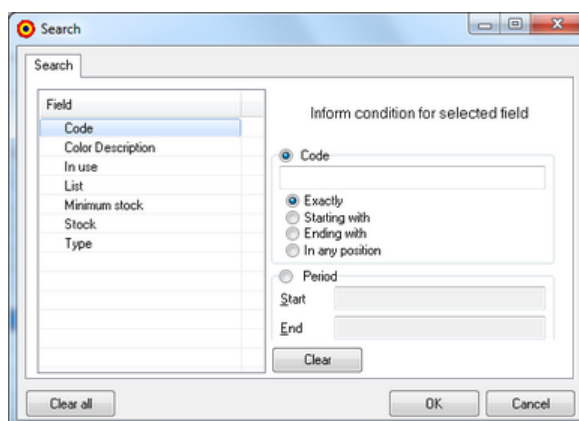


Figure: complement filter window

For the complement registration the following registration search options are available:

- Code
- Description
- In use
- Stock/Inventory
- Minimum Stock/Inventory
- Table
- Type

Price readjustment

This function is used to perform a price readjustment to all complements simultaneously. A discount or addition readjustment can be defined. The following figure illustrates the price readjustment screen:

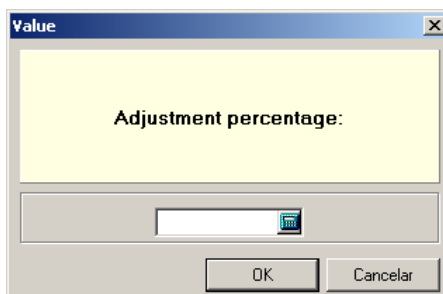


Figure: price readjustment screen

In order to readjust the prices, you must inform the readjustment percentage value. For instance, to promote a 10% addition to the cost prices of all complements, inform the value 10 in the field and click the <OK> button. To give a 10% discount to the cost price of all complements, inform the value -10 in the field, and click the <OK> button.

Access permission

The access to complement registration functions is controlled by the user profile logged in to the system. Therefore:

- Users with management profile can *view and change* the amounts in stock, cost price, as well as use the readjustment function;
- Users with *production* profile only can view the registration information.

3.6 Records of Service Orders

Records of service orders are used to open a new service order, to control the progress of an already-open service order, and to perform service order closing. It is also possible to edit (change) a service order data, remove service order logs, and to perform queries in database by using several parameters related to a service order. The following figure illustrates, by means of an example, a window of service orders:

OS	Customer	Vehicle	Year	License plate	Source	Entry date	Promised
52330 18 VM	CECILIA RODRIGUES DE TOFOLI	IBIRAP	0		Particular	7/1/2015	8/1/2015
52329 01 VD	DAITAN COMERCIO DE VEICULOS LTDA		0		DAITAN	7/1/2015	16/1/201
52333 57 VM	HELAINÉ MASSARI IORVOLINO	IBIRAPL	0		CHUBB	7/1/2015	10/1/201
52336 72 VM	JAIME FERREIRA JUNIOR	IBIRAPUERA	0		MARITIMA	7/1/2015	16/1/201
52332 93 VD	MARCELA TEIXEIRA MENDES POMPEIA		0		PORTO SEGURO	7/1/2015	22/1/201
52312 01 AMA	ANA PAULA CURI	IBIRAPUERA	0		Particular	6/1/2015	9/1/2015
52311 31 VM	VERA LUCIA BRAGA DE FREITAS	IBIRAF	0		PORTO SEGURO	6/1/2015	16/1/201
52309 40 VM	MARIA EUNICE DUTRA MUNIZ PEREZ	IB	0		AZUL	6/1/2015	16/1/201
52319 45 VM	FERNANDO GONCALVES BARCA	IBIRAPU	0		LIBERTY	6/1/2015	9/1/2015
52317 96 VD	FRANCISCO DE ASSIS GUIMARAES	POM	0		Particular	6/1/2015	10/1/201
52321 50 VM	Z TECH INFORMATICA E SERVICOS LTDA-		0		ITAU	6/1/2015	15/1/201
52314 14 VD	DAITAN COMERCIO DE VEICULOS LTDA		0		DAITAN	6/1/2015	15/1/201

Figure: window of service orders

Note:

The window will show record logs that meeting *current* filter conditions. To select all logs existing in this records click <All> key (optionally, it can key in <A>). This key will be enabled there always is some being-used log filtering.

As it can be seeing in previous figure, the window of service orders posses, besides elements common to several other system windows, some visual elements that help in the identification of service order *status* shown. These visual elements (color circles in the colors: green, yellow and red) identify an order according to the following *status and its respective colors*:

- *status "up to date"* (yellow color)
- *status "belated"* (red color)
- *status "ended"* (green color)

Explaining each previous item:

The service order possesses the status "*up to date*", when it is open and its planned date is higher or equal to current date*.

The service order possesses the status "*belated*", when it is open and its planned date is before current date*.

A service order possesses the status "*ended*", when it was performed this-order closing, through the function of service order closing.

(*) it is called *current* date the local machine date in which the program is performed.

To include service order

To include a new service order in the system, click <Include> key of *window of service orders*. Optionally, it can key in (I). It will be shown a window of service order records, the following figure illustrates:

Figure: window of service order records

Observe, in the previous figure, the window possesses three tabs: *Information*, *Products* and *Parts*. Following it will be explained each one.

Service order Information

In the tab *Information* of window of service order records are given general information of service order. Some fields of this window are to data entry, and others (appearing in a grayish color) are only to show values.

OS Number

Here inform the service order number, an alphanumeric field with 20 characters. This field is mandatory.

Entry date

Inform the service order entry date. This field is mandatory.

Planned date

Inform the planned date for the service order end. This field is mandatory. Observe this date should not be before entry date. System uses this field value to classify service order *status* between the following options: "*up to date*" or "*belated*".

Exit date

In this field is shown service order exit date corresponding to date in which it was *ended*. This field is of

automatic system filling, and should not be modified by user.

OS Type

Select service order type: *normal or re-work.*

Costumer

Here inform the name of vehicle owner.

Payer source

Select the service order payer source in the available payer source list. This field is mandatory.

Vehicle

Enter with vehicle identification in which the service will be performed.

Year

Enter with the vehicle manufacture year. Field format: 4 numeric digits, *for example: 2004.*

License plate

Enter with vehicle license plate, an alphanumeric field of ten (10) characters.

Panels

Inform panel number in which the service will be made. In this regard, click in the car icon key. It will be shown a window to mark vehicle parts that will be fixed. *Observation: the number of panels is considered to the cost calculation per part.*

Color code

Inform the used color code, an alphanumeric field of twenty (20) characters.

Total budgeted amount

Here inform total budgeted amount for the service order. This amount should include material and labor force costs.

Budgeted amount of paint

Here inform the budgeted amount of *paint* operation.

Following fields are only for shown calculated amounts, *and should not* be modified by user:

Spent value of paint

It shows total cost amount of products *of paint system.*

Spent value of complements

It shows total cost amount of products *of complement system.*

Total spent value

It totals up the amount of spent value with paint and complements.

% of total labor force

It shows the percentage cost value of paint labor force, being calculated through the following expression:

$$\text{\% of total labor force} = \frac{\text{total spent value}}{\text{total budgeted amount}} \times 100$$

% of labor paint force

It shows the percentage cost value of paint labor force, being calculated through the following expression:

$$\text{\% of total labor force} = \frac{\text{total spent value}}{\text{total amount of paint}} \times 100$$

Cost per part

It shows unitary value amount per part, being calculated through the following expression:

$$\text{Cost per part} = \frac{\text{total spent value}}{\text{number of panels}}$$

Products of Service order

In the tab *Products* of window of service order records are informed products used service order execution. The following figure illustrates tab *products* of window of service order records:

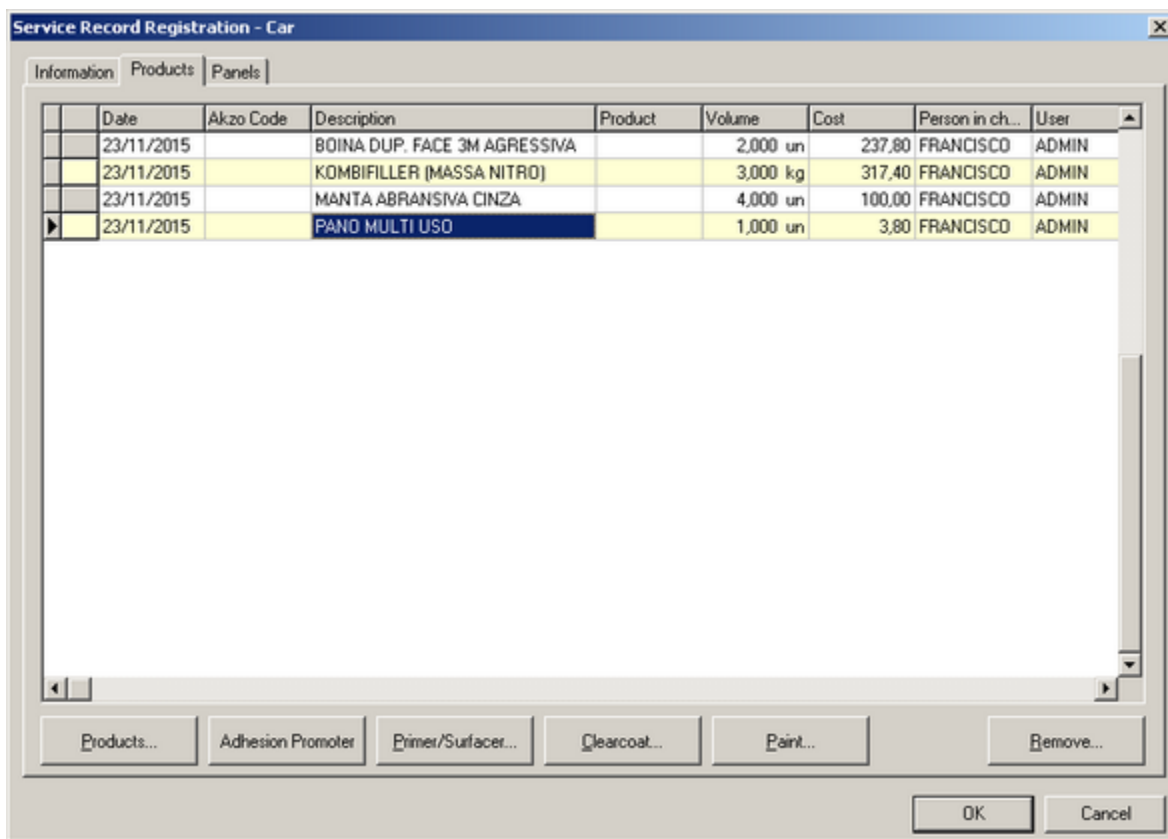


Figure: tab Products of window of service order records

The previous window possesses several keys, whose function will be explained hereinafter.

[Product]

Use this key to select all products that are not informed in the steps: *Adhesion promoter*, *Primer*, *Paints and Varnishes*. In clicking in this key will be shown a window, the following figure illustrates:

Descrição	Consumo	Embalagem
▶ ACABAMENTO 1200		1,000 un
ADAPTADOR P/ BOINA		1,000 un
ADESIVO COLAGEM CHAPAS METALICAS		1,000 un
ADESIVO SPRAY 76 P/ TAPECEIRO		1,000 un
Algodão Ziq Zaq		1,000 un
AMARELO INTERNO DUCO HONDA 3,6 L		1,000 un
AUTO BRILHO 0,5L 3M		1,000 un
Autocoat BT 380 Desengraxante		5,000 l
BATIDA DE PEDRA PTO 0,9L ANJO		1,000 un
BLEND PREP		0,326 l
Boina abrasiva		1,000 un
BOINA DE ESPUMA 3M		1,000 un
BOINA DUP. FACE 3M AGRESSIVA		1,000 un
BOINA DUPLA FACE T. SYSTEM SUPER MACIA		1,000 un
BOINA LUST. ESPU. 3M AVULSO		1,000 un
CARTELA DE PROVA 100 PEÇAS		1,000 un

Figure: window of product inclusion

To inform a product from the list of items used in service order, follow the next steps:

- 1) Select a responsible person;
- 2) Select a product; When a product is selected, the field <Package> will show the content in a product package.
- 3) Inform the used product quantity. *Observe the considered unit indicated beside field.*
- 4) Click in the key <Ok> to confirm desired-product selection.

Observation: when it is finished the process of service order records (by clicking the key <Ok>), it will be accomplished the inventory write-off of informed quantity for products included in service order.

[Adhesion promoter]

Use this key to include products from *Adhesion promoter* step. In clicking in this key will be shown a window, the following figure illustrates:

	%	g	ml
Adhesion promoter	66,70	661,7	667,0
Thinner	33,30	299,7	333,0

Figure: window of *Adhesion promoter* product inclusion

Including *Adhesion promoter* products from the list of items used in service order, follow the next steps:

- 1) Select a responsible person;
- 2) Inform the used product quantity. *Observe that considered unit is millimeter*. This quantity should not be zero.
- 3) Select surface type: Metal or Plastic.
- 4) Select the product to be used. According to selected product, it will be necessary to also select catalyzer and/ or diluent.
- 5) Click in the key <Ok> to include the product.

Note: immediately after completion of field Quantity, the program calculates product quantities, fulfilling the quantities in millimeters, and their corresponding values in grams.

[Primer]

Use this key to include products from *Primer* step. In clicking this key will be shown a window, the following figure illustrates:

	%	g	ml
Primer	69,44	1.020,8	694,4
Hardener	13,88	133,2	138,8
Thinner	16,68	148,5	166,8

Figure: window of *Primer* product inclusion

Including *Primer* products from the list of items used in service order, follow the next steps:

- 1) Select a responsible person;
- 2) Inform the used product quantity. Observe that considered unit is millimeter. This quantity should not be zero.
- 3) Select the used product. Note, immediately after completion of field Quantity, the program calculates the quantities of products, fulfilling the quantities in millimeters, and their corresponding values in grams.

According to selected product, other products should be necessary:

- 4) Select Ratio, if available.
- 5) Select used primer: *strippable*, or not *strippable*.
- 6) It should be selected the surface in which primer will be applied: Metal or Plastic.

If Plastic surface is selected, the field <Type> will be enabled for choosing one of the following options:

- hard
- flexible
- soft
- customized

When selected, the three first options (hard, flexible and soft) make *Strippable Multi Use Filler* and *Not Strippable Multi Use Filler* fields show percentage values suggested by system that, in this case, should not be changed. To customize the percentage values, select customized option. It will also be

selected Elastifying to be used.

- 7) Select catalyzer;
- 8) Select diluent;
- 9) Click in the key <Ok> to include the product.

[Varnish]

Use this key including products from *Varnish step*. In clicking this key will be shown a window, the following figure illustrates:

	%	g	ml
Clearcoat			
AUTOCLEAR MAT - 1,00 l	55,50	546,7	555,0
Hardener			
PLUS HARDENER P25 - 0,50 l	27,80	274,7	278,0
Thinner			
PLUS REDUCER MEDIUM - 5,00 l	16,70	150,3	167,0

Figure: window of Varnish product inclusion

Including products *Varnish* products from the list of items used in service order follow the next steps:

- 1) Select a responsible person;
- 2) Inform the used product quantity. *Observe that considered unit is millimeter.* This quantity should not be zero.
- 3) Select the surface in which will be applied the varnish: *Metal or Plastic.*

If *Plastic* surface is selected, a field <Type> will be enabled for choosing one of the following options:

- hard
- flexible
- soft
- customized

When selected, the three first options (hard, flexible and soft) will show in *Elast-O-Actif* field an

Elastifying percentage suggested by system that, in this case, should not be changed. To customize the percentage values, select customized option.

4) Select the type: *Varnish or Varnish (Quick Dry)*

5) Select *Autoclear* product

6) According to selected Varnish type, other information completion will be necessary.

- Ratio
- Elastifying
- Catalyzer
- Diluent
- Activating

Note: immediately after the product selection, the system calculates the respective needed quantity.

7) Click in the key <Ok> to include Varnish.

[Remove]

Use this key to delete a determined product from the service order product list.

[Paints]

Use this key to include products from *Paints* step. In clicking this key will be shown a window, the following figure illustrates:

Including *Paints* products from the list of items used in service order, follow the next steps:

1) Select a responsible person;

2.1) Select desired paint.

2.2) Inform the quantity of paint to be used. *Observe that considered unit is millimeter.* This quantity should not be zero.

2.3) Inform product cost.

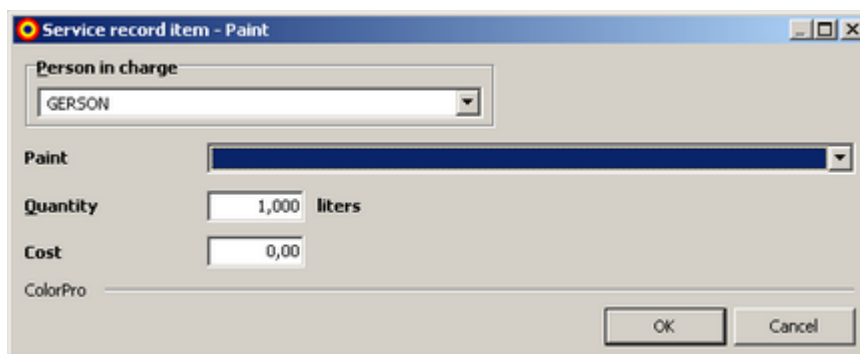


Figure: window of *Paints* inclusion

2.4) According to selected paint type, other information completion will be necessary:

- Ratio
- Catalyzer

- Diluent
- Activating

Note: immediately after the product selection, the system calculates the respective needed quantity.

2.5) Check if in the Paint (ready to use) field the quantity is the sum of asked paint quantity and necessary material to production.

2.6) Click in the key <Ok> to include paint.

Parts

In the tab *Parts* from window of service order records, it is informed vehicle parts in which will be performed repaint work. The following figure illustrates tab *parts* from window of service order records:

Service Record Registration - Car

Information | Products | **Parts**

Using the car diagram click on the panel(s) to be repaired or select the panel(s) from the list.

Panel

Panel	Factor
<input type="checkbox"/> Hood/Bonnet	
<input type="checkbox"/> Right rear side/fender	
<input type="checkbox"/> Left rear side/fender	
<input type="checkbox"/> Front panel	
<input type="checkbox"/> Rear panel	
<input type="checkbox"/> Front bumper	
<input type="checkbox"/> Rear bumper	
<input type="checkbox"/> Front right fender	
<input type="checkbox"/> Front left fender	
<input type="checkbox"/> Right front door	
<input type="checkbox"/> Left front door	
<input type="checkbox"/> Right rear door	
<input type="checkbox"/> Left rear door	
<input type="checkbox"/> Trunk	
<input type="checkbox"/> Roof	
<input type="checkbox"/> Left door jam	
<input type="checkbox"/> Right door jam	

Multiplying factor

Enter the multiplying factor for the selected panel. This factor will be used to calculate the total of repaired panels.

OK Cancel

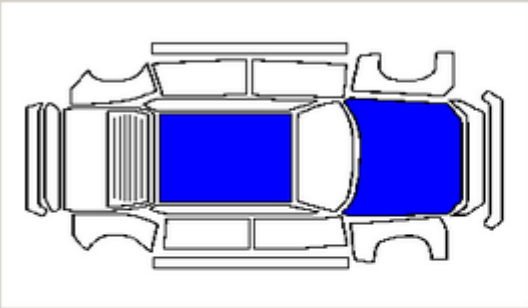
Figure: tab *Parts* from window of service order records

In this tab it should be marked parts in which repaint work will be made.

To mark a part, click on the small square on the left of denominated part. Optionally, it can be used the space to mark/ mark off a part. A selection can also be performed in clicking with the mouse on the part area in the vehicle schematic drawing.

The following figure illustrates, by means of an example, a selection of two vehicle parts:

Using the car diagram click on the panel(s) to be repaired or select the panel(s) from the list.



Multiplying factor

Enter the multiplying factor for the selected panel. This factor will be used to calculate the total of repaired panels.

Panel	Factor
<input checked="" type="checkbox"/> Hood/Bonnet	3,00
<input type="checkbox"/> Right rear side/fender	
<input type="checkbox"/> Left rear side/fender	
<input type="checkbox"/> Front panel	
<input type="checkbox"/> Rear panel	
<input type="checkbox"/> Front bumper	
<input type="checkbox"/> Rear bumper	
<input type="checkbox"/> Front right fender	
<input type="checkbox"/> Front left fender	
<input type="checkbox"/> Right front door	
<input type="checkbox"/> Left front door	
<input type="checkbox"/> Right rear door	
<input type="checkbox"/> Left rear door	
<input type="checkbox"/> Trunk	
<input checked="" type="checkbox"/> Roof	2,00
<input type="checkbox"/> Left door jam	
<input type="checkbox"/> Right door jam	

Figure: example of part selection

In the previous-figure example, *hood and roof* of vehicle parts were selected. Observe selected parts are colored in *blue* in the vehicle schematic drawing.

To mark off a selected part, just click in the part area (drawing) or click in selection box associated to part.

Observation: the field <Multiplying factor> is used as a multiplicative factor for each part. The factor will be used to total calculation of repaired panels.

Example: in this example two parts (Roof and Hood) were selected, assuming for roof was informed an multiplying factor 2 and for hood, an multiplying factor 3, in such a way it has an accounting of 2 parts for roof and 3 parts for hood. It occurs due to different sizes of same parts in different cars, then for a small car, it can be used as multiplying factor 1 and for a larger proportions car, a different multiplying factor can be applied.

Closing a service order

To close a service order, select it in the same service order list, and click in the key <Close> (optionally, it can key in <C>). It will be shown a message asking for OS closing confirmation.

Note: when ended, a service order could not be changed anymore.

Re-opening a service order

Once a service order should be *ended*, this could not be changed anymore (a changing function will be disabled for this service order).

If it is necessary to do any changing in an already ended service order, the function of service order re-open should be used.

To re-open a service order, click in the key <Re-open> (optionally, it can key in <R>).

Printing OS Chart

A function Print from service order window allows two options: Print a service order chart (Selected OS) or Print service order report.

[Selected OS]

To print a selected service order chart, click in the key <Print> and select the option < Selected OS>. Service order chart will have the following information:

- customer
- service order type (*normal or re-work*)
- vehicle, year and license plate
- number of repaired panels
- used color code
- payer source
- total budgeted amount
- budgeted amount of paint
- % labor force total
- % labor force paint
- spent value in system *Sikkens*
- spent value with *abrasive products and others*
- cost per part
- entry date
- planned date
- exit date

Besides general information about OS, for each product used in the vehicle repair, the following information will be shown:

- product inclusion date in OS
- product identification
- consumed quantity
- product total price
- responsible person

The following figure illustrates, by means of an example, the printed chart:

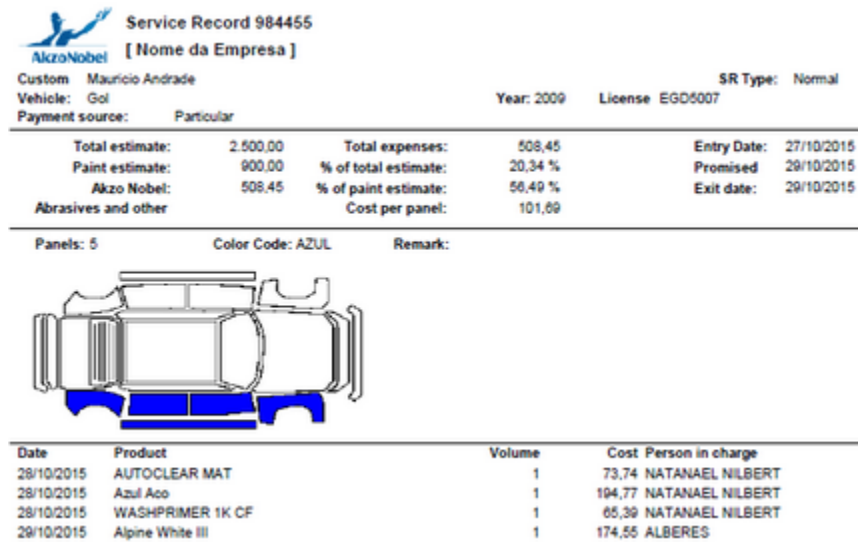


Figure: OS printing

[OS List]

To print service orders list, click in the key <Print> and select <All OS>.

A report with all service orders shown in the main window will be shown in the screen, according to selected filter.

For each order, the following information is printed:

- OS
- Costumer
- Vehicle
- Year
- License plate
- Source
- Entry
- Fixed
- Exit
- Value fixed

3.7 Tax Invoices

Invoice records are used including a new invoice in the system and its items in the stock. It is also possible, to edit (change) an invoice data, remove an invoice and to perform queries in database by using several parameters related to an invoice. The following figure illustrates, by means of an example, the window of service orders:

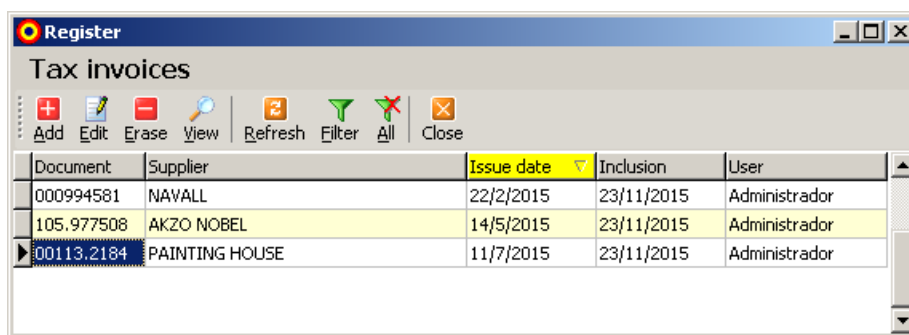


Figure: window of invoice

Including an Invoice

To including a new Invoice, click in the key <Include> from key bars from window of invoice records (optionally, it can key in <Alt> + <I>). It will be shown the following window:

The 'Tax invoice' window is used for including a new invoice. It contains the following fields and sections:

- Number:** A text input field for the invoice number.
- Supplier:** A text input field for the supplier name.
- Issue date:** A date picker field showing '11' and '19'.
- Inclusion:** A date picker field showing '23/11/2015' and '19'.
- Table:** A table with columns: Product, Akzo Code, Volume, and Cost. It has one empty row for data entry.
- Totals:** A section at the bottom with input fields for Freight (0,00), Products (0,00), and Total (0,00).
- Buttons:** 'Delete item', 'OK', and 'Cancel' buttons.

Figure: window of invoice inclusion

Number

Inform the Invoice number as it appears in the document.

Supplier

Inform the supplier

Issue

Inform the invoice issue date

Inclusion

Inclusion date is the current date (*). It is automatically given by system. This field is automatic and fixe, it means, it could not be changed.

(*) *it is called current date the machine local date in which o program is performed.*

Product

All products available and the respective packages will be shown. Select in the list the desired product to be included in the invoice.

Quantity

Select the desired Quantity to be included.

Cost

Indicate the price of unit cost.

Observation: the system can ask for other field completion that should be applied to invoice and products.

These fields referring to fees and/ or taxes configured in the menu <System><Configuration>.

[Totals]**Freight**

Inform charged freight amount in the invoice delivery.

Products

It shows Total Cost value of invoice items. This value is automatically updated, as products are included in the invoice.

Total

It shows Total Cost sum of an invoice.

Example of an invoice record

The following examples illustrate an invoice record where is applied a tax / fee, here called ICMS.

In order to tax can be applied, it is necessary firstly record it in the system. Record process must be performed in the menu <System><Configuration>. For more details, see Configuration topic.

Note, once configuring taxes to be applied, two new fields will be shown:

- a column with the tax name in the window of products
- a field with the tax name in Totals.

The screenshot shows a 'Tax invoice' window. At the top, there are fields for 'Number', 'Supplier', 'Issue date' (set to 11/19), and 'Inclusion' (set to 23/11/2015). Below these is a table with the following columns: Product, Alko Code, Volume, Cost, and ICMS. The ICMS column is highlighted with a red box, and a red arrow points to it with the label 'column in products'. Below the table, there is a 'Totals' section. The 'ICMS' field in the Totals section is highlighted with a red box, and a red arrow points to it with the label 'totals'. Other fields in the Totals section include 'Freight' (0,00), 'Products' (0,00), and 'Total' (0,00). At the bottom, there are buttons for 'Delete item', 'OK', and 'Cancel'.

Figure: window of invoice inclusion with tax

Example 1

It will be seeing how to include an invoice where applied tax applied will be included in each product.

- 1) Go to menu <Records><Invoices> and open the window of invoice inclusion in clicking in <Include>.
- 2) Include the product in the invoice.
- 3) Inform Quantity
- 4) Inform cost value
- 5) Indicate tax value to be applied.

Note, automatically, the system calculates and indicates the invoice total cost of each new included product. The field Products indicates the product total cost, and in Total, it appears total cost plus applied tax.

Product	Akzo Code	Volume	Cost	ICMS
▶ PLASTOFLEX PRIMER SPRAY 400,000 ml	485.59115.08	20,00	8,28	16,56

Totals

ICMS: 0,00

Freight: 0,00

Products: 165,60

Total cost with tax

Total: 182,16

Figure: window of invoice inclusion - tax applied to products

Thus, the calculation of invoice total will be as following:

$$\text{Products} = \text{Volume} \times \text{Cost}$$

$$\text{Total} = \text{Products} + \text{sum taxes}$$

- 6) Repeat the steps 2 to 5 until all products have be included.
- 7) After products inclusion, click in <OK>.

Example 2

It will be seeing how include an invoice where applied tax will directly be included in invoice totalization.

- 1) Go to menu <Records><Invoices> and open a window of invoice inclusion in clicking in <Include>.
- 2) Include the product in the invoice.
- 3) Inform Quantity
- 4) Inform cost value

Product	Akzo Code	Volume	Cost	ICMS
PLASTOFLEX PRIMER SPRAY 400,000 ml	485.59115.08	20,00	8,28	0,00

Totals

ICMS: 0,00

Freight: 0,00

Products: 165,60

Total: 165,60

Buttons: Delete item, OK, Cancel

Figure: window of invoice inclusion - invoice total

Note, automatically, the system calculates and indicates the invoice total cost of each new included product. Total indicated value is still composed only by included-product total cost.

5) Repeat the steps 2 to 4 until all products have be included.

6) After product inclusion, inform in the field designed to tax sum to be applied in the invoice. Note invoice total value is updated.

Product	Akzo Code	Volume	Cost	ICMS
PLASTOFLEX PRIMER SPRAY 400,000 ml	485.59115.08	20,00	8,28	0,00

Totals

ICMS: 16,56

Freight: 0,00

Products: 165,60

Total: 182,16

tax applied to invoice total

Buttons: Delete item, OK, Cancel

Figure: window of invoice inclusion - tax applied to invoice total

7) Click in <OK> to conclude the inclusion.

Researching an invoice

It can be performed researches in database to finding a determined invoice, invoices of determined supplier or invoices included in the system in a determined period. In this regard, it is used a log filter function, which is accessed by clicking in the key <Filter> from key bars of window of products (optionally, it can key in <Alt> + <F>). The following figure illustrates a window of invoice filter:

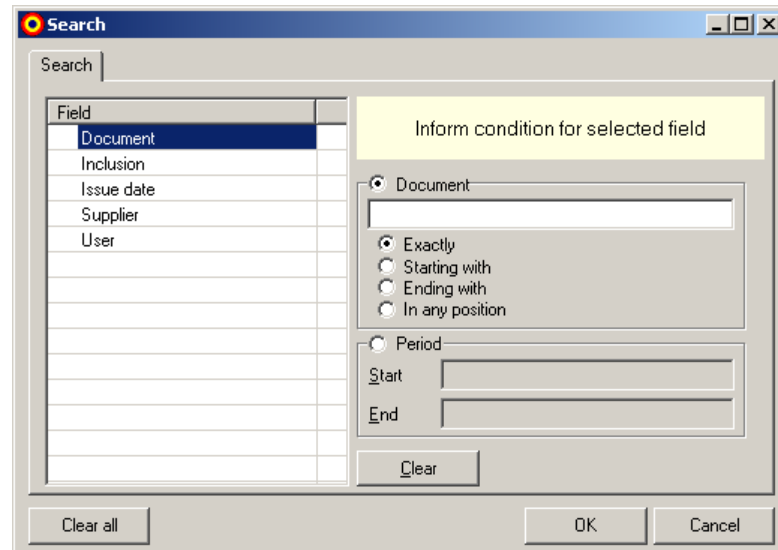


Figure: window of invoice filter

To product records, there are the following log research options:

- Document
- Issue
- Supplier
- Inclusion
- User

Hereinafter it is illustrated the running of window product filter, through examples:

Example 1

In the case it wanted to find all invoices whose issue date is comprised in the period from 06-15-2003 to 07-15-2003 (including initial and final dates).

In this regard it can be performed the following sequence:

1. Select the field <Issue Date> in the available field list;
2. Select the option <Interval> and inform the date '06-15-2003' in the *beginning* field, and then inform the date '07-15-2003' in the *final* field.
3. Click in the key <Ok>

It will be shown all invoices whose issue date is comprised in the informed period.

Observation: in the case it wanted to filter the invoices that have a determined issue date, it will be enough to inform it in the field <Date>.

Observation 2: the process is similar in the case it wanted to filter the invoices according to inclusion date in the system.

Example 2

In the case it wanted to find all invoices, whose document number begins with "AIX".

In this regard it can be performed the following sequence:

1. Select the field <Document> in the available field list;
2. Place the cursor in the field <Document> and type the text "AIX";
3. Select the option <Beginning with>;
3. Click in the key <Ok>

It will be shown all invoices whose Document number begins with the text "AIX".

Observation: the process is similar in the case it wanted to filter the invoices according to supplier or with the user who did the launch in the system.

3.8 Job sources

Payer source record is used to include a new payer source in the system to be used in the opening of a service order.

To access the payer source record, click in the option <Payer sources> from menu <Records> of main system screen. The following figure illustrates, by means of an example, a window of payer sources from system:

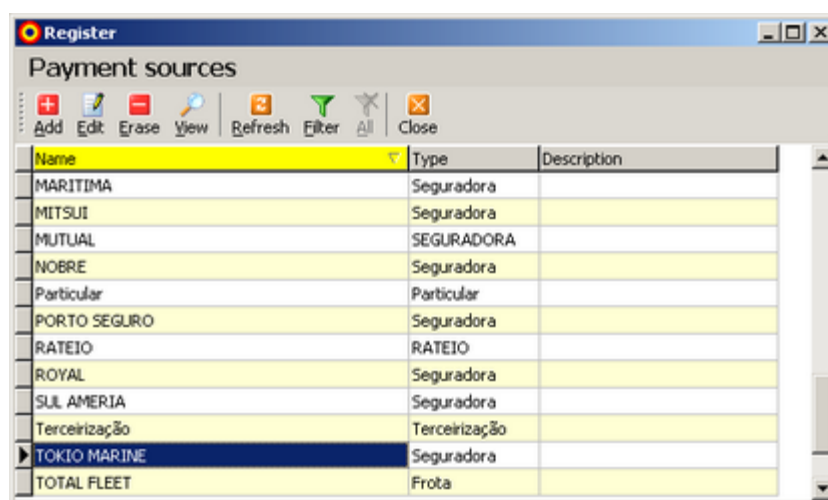


Figure: window of payer sources

Note:

A window will show the record logs that meeting the conditions of *current* filter. To select all logs existing in this records, click in the key <All> (optionally, it can key in <A>). This key will be enabled there always is some filtering of being-used logs.

Including a new payer source, click in the key <Include> from key bars from window of records of service sources (optionally, it can key in <I>). It will be shown the following window:

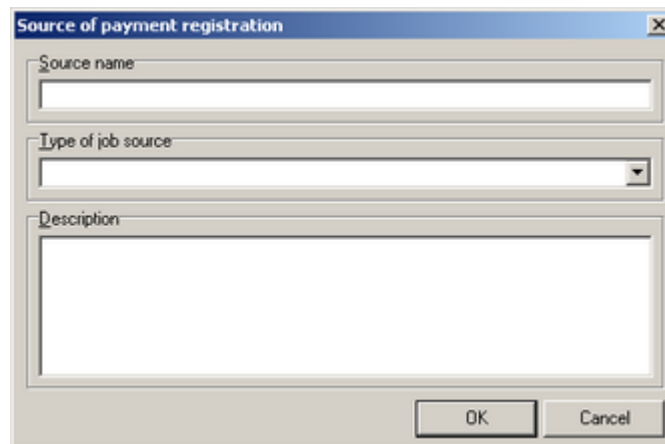


Figure: window of payer source records

Source name

Inform the payer source name. This field is mandatory.

Payer source type

Inform the payer source type. It can be selected a type source in the available type list (this list is shown by clicking with the mouse cursor in the key containing a small *down arrow* in the field) or type a text.

Description

Inform the payer source description. The field is of free typing.

To include a new payer source in the system, click in the key <Ok>.

Researching payer sources

It can be performed researches in database to finding a determined payer source, or set of payer sources. In this regard, it is used a function of log filter that is accessed by clicking in the key <Filter> from key bars of window of payer sources (optionally, it can key in <F>). The following figure illustrates a window of payer source filter:

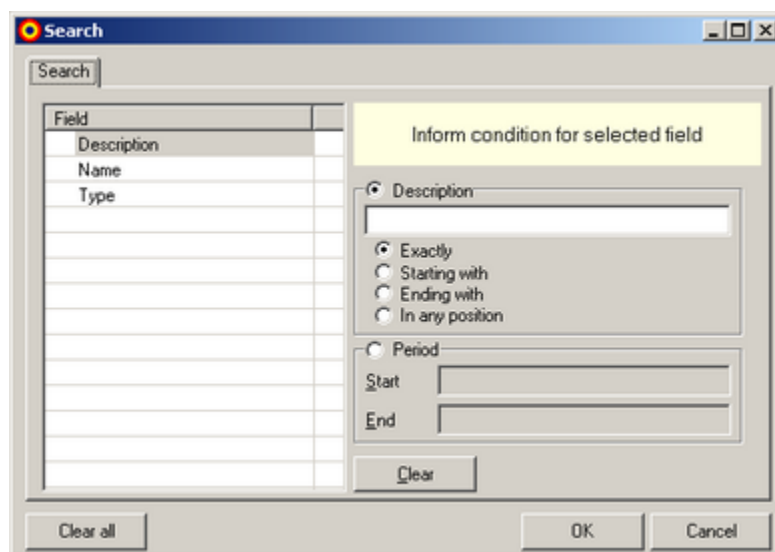


Figure: window of payer source filter

For the product records, there are the following log research options:

- Description
- Name
- Type

Hereinafter, it is illustrated the window running of payer source filter, through examples:

Example 1

In the case it wanted to find a payer source that has the following description: *Re-work source*.

In this regard, it can be performed the following sequence:

1. Select the field <description> in the field list available;
2. Place the cursor in the field <description> and type the word *Retra source*;
3. Select the option <Beginning with>;
3. Click in the key <Ok>

It will be shown all payer sources whose description begins with the text *Retra source*;

Tip: use the research option <Exactly like> just if it is sure about correct, complete spelling of description to be researched.

Example 2

In the case it wanted to find the payer source of *Re-work* name.

In this regard, it is done the following sequence:

1. Select the field <Name> in the field list available;
2. Place the cursor in the field <Name> and type the word *Re-work*;
3. Select the option <Exactly like>;
4. Click in the key <Ok>

It will be shown a payer source with *Re-work* name.

Example 3

In the case it wanted to find all payer sources whose type is *Insurance*.

In this regard, it can be performed the following sequence:

1. Select the field <Type> in the field list available;
2. Select the option <Exactly like> from field <Type>;
3. Click in the key <Ok>

It will be shown all payer sources whose type is *Insurance*.

Part

IV

4 Reports

All reports issued by the system are grouped herein.

Access permission

The access to all reports is controlled by the profile of the user logged in the system, and is allowed only to the users with management profile

4.1 Mixed colors

This report shows formulas produced in a specific period. To issue the report you must inform some parameters. The following figure illustrates the window to enter the report parameters:

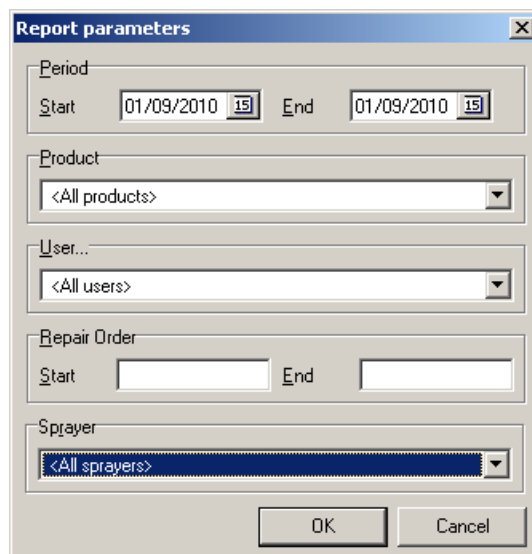
The image shows a 'Report parameters' dialog box with a title bar and a close button. It contains several sections: 'Period' with 'Start' and 'End' date pickers both set to '01/09/2010'; 'Product' with a dropdown menu showing '<All products>'; 'User...' with a dropdown menu showing '<All users>'; 'Repair Order' with 'Start' and 'End' text input fields; and 'Sprayer' with a dropdown menu showing '<All sprayers>'. At the bottom are 'OK' and 'Cancel' buttons.

Figure: parameter window to issue the report

To issue the report, inform the following parameters:

- 1) Period: between the initial date and final date in order for the period to be considered;
- 2) Select a product line or <All lines>;
- 3) Select a user or <All users>;
- 4) Inform the start and end of the service order;
- 5) Select the sprayer.

To issue the report, click the <Ok> button.

Note: the options <Service Order> and <Painter> are configurable from the main menu option - <System> - <settings> and depending on the option, when selecting <preferences> these options can appear or not in the report filter.

Report description

The report issued will show, to the line and users selected, the formulas produced within the period informed. To each formula a production date, formula code, its description, sale values, volume produced (in liters), the user in charge and the painter will be displayed.

Tip: to view the formulas produced in a specific date, inform for the initial date and final date the period of the date desired.


 Mixed Colors Period: 28/08/2010 - 30/08/2010							
Acabit							
Date	RD	Code	Color Description	Volume (l) Mixing	Price	User	Sprayer
Autobase							
30/08/2010	152465	DB815	Mercedes	1,000	2,00	Administrador	HERBERT
30/08/2010	123685	DB815	Achatgruen	1,000	1,00	Administrador	HERBERT
Total colors mixed:		2			3,00		
GrandTotal:		2			3,00		

Figure: report of formulas produced

4.2 Produced ancillaries

This report displays the complements produced in a given period. For issuing the report, you must enter some parameters. The following figure shows the window for entry of the report parameters:

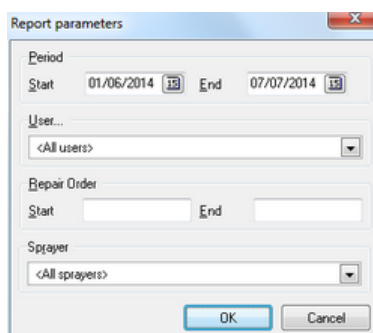


Figure: parameters window to issue the report

To issue the report, enter the following parameters

- 1) Period: Enter the start date and the final date for the period to be considered;
- 2) Select a user or <All Users>;
- 3) Enter the beginning and end of the service order;
- 4) Select the painter.


To issue the report click on <Ok> button.

Note: the <Service Order> and <Painter> options are configurable from the main menu option - <System> - <configuration>, and depending on the option selected in <preferences> these options may appear or not in the report filter.

Report description

The report issued will display, for the selected users, the complements produced within the reporting period. For each complement it will be displayed the production date, the complement code, its description, the value of sales, the production volume (in liters), the ratio, the responsible user, and the painter.

Tip: to view the complements produced by a certain date, enter for the start and final date of the period to the desired date.

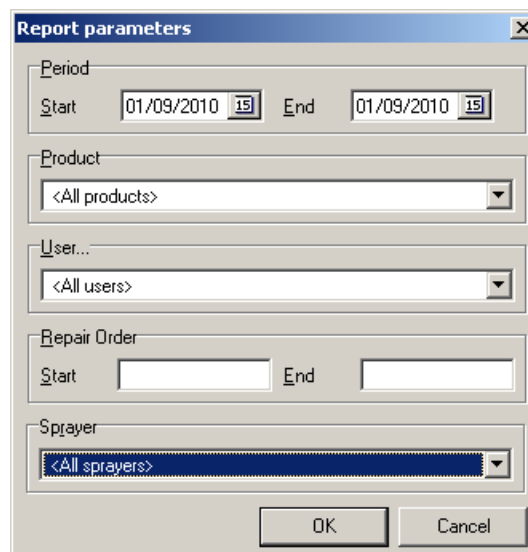

Produced ancillaries Period: 01/06/2014 - 07/07/2014

Date	RO	Code	Color Description	Volume (l) Ratio	Price	User	Sprayer
Primer							
03/07/2014		485.06006.62	MULTI USE FILLER HS	1,000 5:1+20% -	0,00	Administrador	
03/07/2014		485.06006.62	MULTI USE FILLER HS	1,001 5:1+20% -	0,00	Administrador	
03/07/2014		485.06006.62	MULTI USE FILLER HS	1,001 5:1+20% -	0,00	Administrador	
03/07/2014		485.06006.62	MULTI USE FILLER HS	1,001 5:1+20% -	0,00	Administrador	
07/07/2014	0707	485.06006.62	MULTI USE FILLER HS	1,000 5:1+20% - Metal	9,55	Administrador	PEDRO
Total produced: 5					9,55		
Clearcoat							
02/07/2014	02071730	488.04003.03	AUTOCLEAR 1L	0,700 Metal	0,00	Administrador	
07/07/2014	0707	488.06000.03	AUTOCLEAR PLUS	1,000 Metal	18,55	Administrador	
Total produced: 2					18,55		
Grand Total: 7					28,10		

Figure: produced complements report

4.3 Toner consumption

This report shows the base consumption in a specific period. To issue the report, you must inform some parameters. The following figure illustrates the window in which you enter the report parameters:



The dialog box titled "Report parameters" contains the following fields:

- Period:** Start date: 01/09/2010, End date: 01/09/2010.
- Product:** Dropdown menu showing "<All products>".
- User...:** Dropdown menu showing "<All users>".
- Repair Order:** Start and End date fields.
- Sprayer:** Dropdown menu showing "<All sprayers>".
- Buttons:** OK and Cancel.

Figure: parameter window to issue the report

To issue the report, inform the following parameters:

- 1) Period: between the initial date and final date in order for the period to be considered;
- 2) Select a product line or <All lines >;
- 3) Select a user or <All users>;
- 4) Inform the start and end of the service order
- 5) Select the painter

To issue the report, click the <Ok> button.

Note: the options <Service Order> and <Painter> are configurable from the main menu option - <System> - <settings> and depending on the option, when selecting <preferences> these options can appear or not in the report filter.

Report description

The report issued will show, to the line and users selected, the base consumption within the period informed. To each base consumed the base code, its description, sale values, volume consumed (in liters), and the value in units will be displayed.


 Toner consumption Period: 28/08/2010 - 30/08/2010 Acabit			
Code	Color Description	Volume (l)	Units
Autobase			
558	BRIGHT OXIDE YELLOW 558	0,585	0,585
732	DARK GREEN TRANSPARENT 732	0,269	0,269
400	DEEP BLACK 400	0,021	0,006
744	MIXING BLACK 744	0,623	0,166
360	RED OXIDE 360	0,046	0,046
259	RED OXIDE SEMI-TRANSP. 259	0,288	0,288
262	RED TRANSPARENT 262	0,203	0,203
956	VIOLET RED TRANSPARENT 956	0,247	0,247
00	WHITE 00	0,523	0,139
101	WHITE TRANSP. 101	0,195	0,195
Total volume		3,000	

Figure: toner consumption report

4.4 Ancillaries consumption

This report displays the consumption of complements in a given period. For issuing the report, you must enter some parameters. The following figure shows the window for entry of the report parameters:

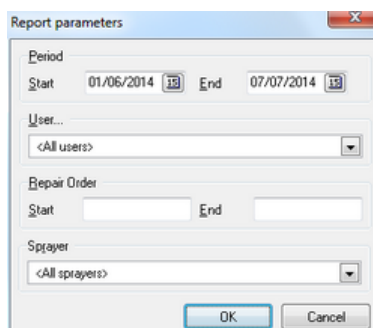


Figure: parameters window to issue the report

To issue the report, enter the following parameters:


- 1) Period: Enter the start date and the final date for the period to be considered;
- 2) Select a user or <All Users>;
- 3) Enter the beginning and end of the service order;
- 4) Select the painter.

To issue the report click on <Ok> button.

Note: the <Service Order> and <Painter> options are configurable from the main menu option - <System> - <configuration>, and depending on the option selected in <preferences> these options may appear or not in the report filter.

Report description

The report issued will display, for the selected user, the consumption of complements within the reporting period. For each complement consumed the complement code, its description, the volume consumed (in liters), and the corresponding value in units will appear.

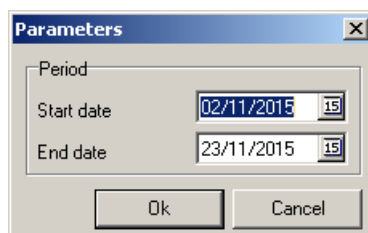
 Ancillaries consumption Period: 01/06/2014 - 07/07/2014

Code	Color Description	Volume (l)	Units
Primer			
485.06006.62	MULTI USE FILLER HS	3,573	1,191
Total volume:		3,573	
Clearcoat			
488.04003.03	AUTOCLEAR 1L	0,389	0,389
488.06000.03	AUTOCLEAR PLUS	0,555	0,555
Total volume:		0,944	
Hardener			
488.05025.54	PLUS HARDENER P25	1,474	2,948
Total volume:		1,474	
Thinner			
487.000014.03	PLUS REDUCER FAST	0,882	0,882
487.00002.15	PLUS REDUCER MEDIUM	0,117	0,023
Total volume:		0,998	
Flex additive for plastics			
489.00100.03	ELAST-O-ACTIF 1L	0,954	0,954
Total volume:		0,954	

Figure: complements consumption report

4.5 Purchases

This report shows the relation of purchases performed in a determined period. For the report issue, it must be informed the period to be analyzed. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with a title bar containing a close button. Inside the dialog, there is a 'Period' section with two date pickers. The 'Start date' is set to 02/11/2015 and the 'End date' is set to 23/11/2015. Both date pickers have a small calendar icon to their right. At the bottom of the dialog are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for report issue

To issue the report, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;

To issue the report click in the key <Ok>.

Report Description

Issued report will show the relation of purchases performed in the period informed. Products are grouped according to each type. For each product the following information is shown:

- Product name
- Package
- Supplier
- Document (Purchase Invoice Number)
- Purchase Date


- Purchased Quantity
- Cost per unit
- Total Cost

At the end of each grouping, grouping total cost is shown:

- Grouping Name (product type)
- Total Cost (sum of all grouping cost)

At the end of report, the general total cost is shown, it means, the sum of total costs.

- General Total
- General Total Cost

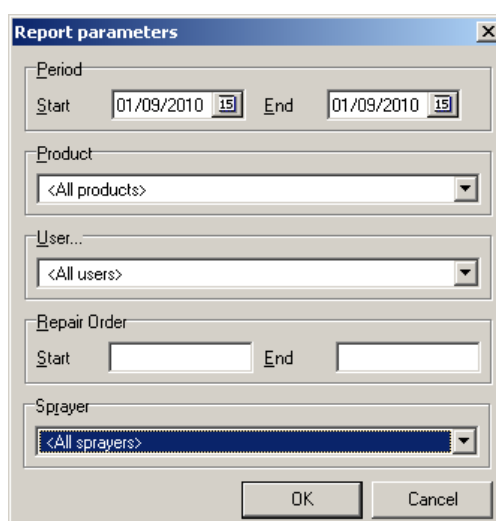
 Purchases Period: 4/7/2014 - 4/7/2014
[Company Name]

Code	Product	Packaging Supplier	Document	Date	Volume	Cost	Total
Abrasives and other products							
	AMARELO INTERNO DUCO HONDA 3,6 L	1,000 unJD TINTAS	176,912	4/7/2014	1,00	138,85	138,85
	CINZA AZL INTERNO DUCO HONDA 3,6 L	1,000 unJD TINTAS	176,912	4/7/2014	2,00	127,10	254,20
	COADOR DE TINTA DESCARTAVEL	1,000 unJD TINTAS	176,912	4/7/2014	20,00	0,44	8,80
	DISCO DE FIBRA 3M 080	1,000 unJD TINTAS	176,912	4/7/2014	10,00	2,20	22,00
	DISCO DE FIBRA 3M 4,5 GR036	1,000 unJD TINTAS	176,912	4/7/2014	10,00	2,50	25,00
	DISCO ROLOC CERAM.3M GR.036 MARR. 50,8MM	1,000 unJD TINTAS	176,912	4/7/2014	20,00	3,07	61,40
Abrasives and other products							510,25
Polishing							
	DISCO FIBRA 3M 050	1,000 unJD TINTAS	176,912	4/7/2014	10,00	2,20	22,00
Polishing							22,00
Overall Total							532,25

Figure: report of relation of purchases in a period

4.6 Reports: Turnover

This report displays the inventory movement of bases in a certain period. For the issuance of the report you should inform some parameters. The following figure shows the window for the input of the report parameters:



The dialog box titled "Report parameters" contains the following fields:

- Period:** Start date: 01/09/2010, End date: 01/09/2010.
- Product:** Dropdown menu showing "<All products>".
- User...:** Dropdown menu showing "<All users>".
- Repair Order:** Start and End date fields.
- Sprayer:** Dropdown menu showing "<All sprayers>".
- Buttons:** OK and Cancel.

Figure: Parameter window to issue of the report

To send the report, enter the following parameters:

- 1) Period: Enter the start date and end date for the period to be considered;
- 2) Select a product line or <all lines>;
- 3) Select a user or <All users>;
- 4) Enter the start and end of the service order
- 5) Select the painter

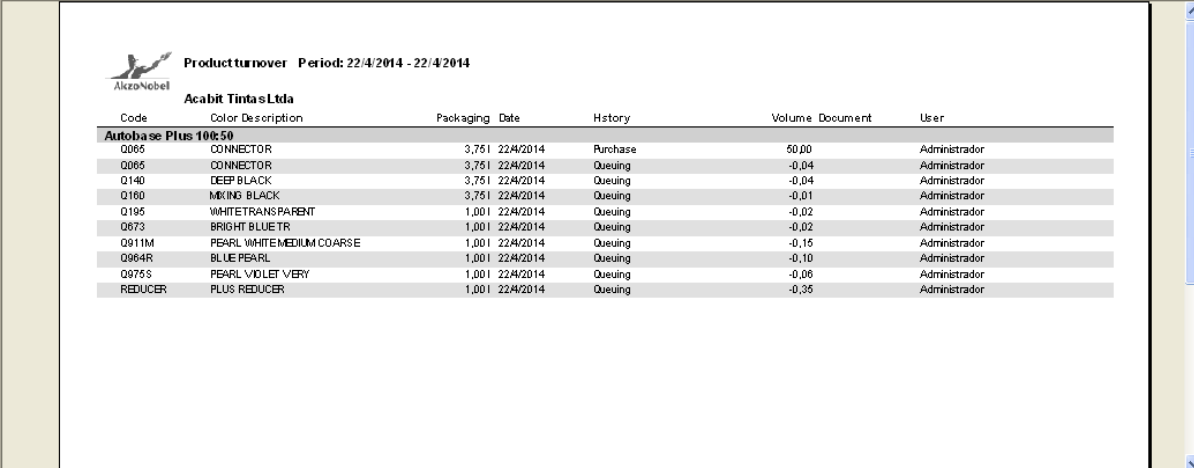
To issue the report click the <Ok> button.

Note: <Service Order> and <Painter> options are configurable from the main menu option - <System> - <Setting> and depending on the option selected in <Preferences> these options may not appear in the report filter.

Report Description

The report issued will display for the selected line and users, all movements of all bases within the reported period.

For each base, the code base is displayed, its description, packaging in use, date of movement, the history, the quantity (in units), the corresponding document and the user responsible



Code	Color Description	Packaging	Date	History	Volume	Document	User
Autobase Plus 100:50							
Q065	CONNECTOR	3,75 l	22/4/2014	Purchase	50,00		Administrador
Q065	CONNECTOR	3,75 l	22/4/2014	Queuing	-0,04		Administrador
Q140	DEEP BLACK	3,75 l	22/4/2014	Queuing	-0,04		Administrador
Q160	MIXING BLACK	3,75 l	22/4/2014	Queuing	-0,01		Administrador
Q195	WHITE TRANS PARENT	1,00 l	22/4/2014	Queuing	-0,02		Administrador
Q673	BRIGHT BLUE TR	1,00 l	22/4/2014	Queuing	-0,02		Administrador
Q911M	PEARL WHITE MEDIUM COARSE	1,00 l	22/4/2014	Queuing	-0,15		Administrador
Q964R	BLUE PEARL	1,00 l	22/4/2014	Queuing	-0,10		Administrador
Q975S	PEARL VIOLET VERY	1,00 l	22/4/2014	Queuing	-0,06		Administrador
REDUCER	PLUS REDUCER	1,00 l	22/4/2014	Queuing	-0,35		Administrador

Figure: report of moving bases

4.7 Service record list

This report shows the relation of service orders performed in a determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:

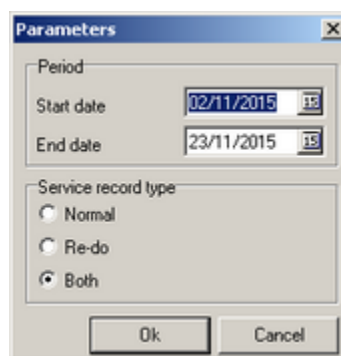
A screenshot of a 'Parameters' dialog box. It has a title bar with 'Parameters' and a close button. The dialog is divided into two sections. The first section, 'Period', contains two date pickers: 'Start date' with the value '02/11/2015' and 'End date' with the value '23/11/2015'. The second section, 'Service record type', contains three radio buttons: 'Normal', 'Re-do', and 'Both'. The 'Both' radio button is selected. At the bottom of the dialog are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for report issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show the relation of service orders performed in the informed period. For each service order, the following information is shown:

- service order number
- costumer
- vehicle
- vehicle license plate
- service order type
- number of panels
- entry date
- planned date
- exit date
- payer source
- total budgeted amount
- budgeted amount paint
- spent value (Products Akzo)
- spent value (*abrasive products and others*)
- total spent value
- % of labor force total
- % of labor force paint
- cost per part

Service Record List Period: 2/11/2015 - 23/11/2015
[Company Name]

OS	Customer	Total estimate	Paint estimate	Vehicle Akzo Nobel	Abrasives and	License Total spent	% total labour	SR Type	Panels Input % of paint	Estimated Cost per panel	Output Type
54895 16	DAITAN	600,00	0,00	57,73		57,73	9,62 %	Normal	3,0 30/10/2015	21/11/2015	21/11/2015
54971 74	DAITAN	800,00	0,00	79,78	15,65	95,43	11,93 %	Normal	5,0 6/8/2015	20/8/2015	21/11/2015
54985 73	DAITAN	600,00	0,00	89,24	13,45	102,69	17,11 %	Normal	3,0 6/11/2015	21/11/2015	21/11/2015
55007 53	DAITAN	600,00	0,00	74,86	20,87	95,73	15,96 %	Normal	3,0 7/11/2015	21/11/2015	21/11/2015
55048 65	DAITAN	400,00	0,00	28,52		28,52	7,13 %	Normal	2,0 11/11/2015	21/11/2015	21/11/2015
55132 20	CORTESIA	0,00	0,00	28,52		28,52		Re-do	1,0 19/11/2015	21/11/2015	21/11/2015
OS: 6	Panels: 17,0	3.000,00	0,00	358,65	49,97	408,62	13,62 %				24,04
	Per SR:	500,00	0,00								

Figure: report of service order relation

4.8 VOC

This report will be displayed in the main menu of the system only when the option <See VOC information> is selected from the main menu option - <System> - <Configuration>.

This report shows the VOC emission corresponding to each toner used in the production of formulas in a certain period. To the production of the report you must inform some parameters. The exhibit that follows illustrates the window to the input parameters of the report:

Report parameters

Period
Start: 01/09/2010 15 End: 01/09/2010 15

Product
<All products>

User...
<All users>

Repair Order
Start: End:

Sprayer
<All sprayers>

OK Cancel

Exhibit: parameters window to report production

To issue the report, enter the following parameters:

- 1) Period: between the initial date and final date in order for the period to be considered;
- 2) Select a product line or <All lines>;
- 3) Select a user or <All users>;
- 4) Inform the start and end times of the service order;
- 5) Select the sprayer.


To issue the report, click the <Ok> button.

Note: the options <Service Order> and <Painter> are configurable from the main menu option - <System> - <settings> and depending on the option, when selecting <preferences> these options can

appear or not in the report filter.

Report description

The report issued will show, for the line and users selected, the amount in grams of VOC issued per each toner within the period informed. To each toner consumed will be displayed the code of the toner, its description, the amount consumed (in liters), the value of VOC (in grams per liter) and amount of VOC emitted (in grams).

 VOC emission Period: 01/10/2010 - 10/11/2010

Martelinho de Ouro

Code	Color Description	Volume (l)	VOC (g/l)	VOC emission (g)
Autocryl				
00	WHITE 00	1,993	480,000	956,812
242	DEEP BLACK 242	2,229	515,000	1.147,948
297	LIGHT YELLOW 297	0,406	530,000	215,223
330C	METALLIC COARSE 330C	0,190	505,000	96,032
330CC	METALLIC VERY COARSE 330CC	0,206	505,000	103,828
330MS	METALLIC MEDIUM COARSE 330MS	0,213	505,000	107,740
361	RED YELLOW 361	0,114	445,000	50,644
528	RED MAROON TRANSPARENT 528	0,170	505,000	85,763
532	RED OXIDE TRANSP. 532	0,422	530,000	223,497
558	BRIGHT OXIDE YELLOW 558	0,102	505,000	51,310
559	RED OXIDE (YELLOW) 559	0,056	505,000	28,056
568	ORANGE RED TRANSP. 568	0,885	530,000	469,146
744	MIXING BLACK 744	0,015	515,000	7,589
Total:		7,000		3.543,589
Grand Total:		7,000		3.543,589

Exhibit: report VOC query

4.9 VOC of complements

This report will be shown in the main system menu only when it is selected the option <See VOC information> from main menu option - <System> - <Configuration>.

This report shows a VOC issue corresponding to each complement used in formula production in a determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:

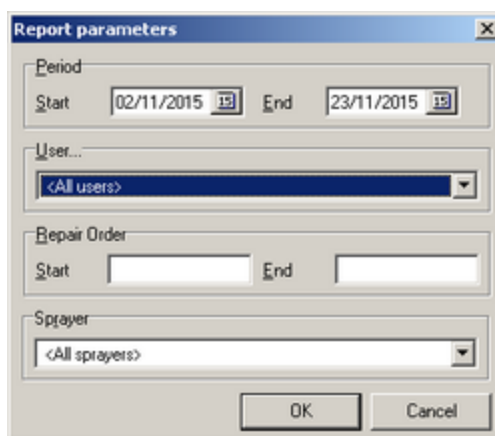


Figure: window of parameters for report issue

To report issue, inform the following parameters:


- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select a user or <All users>;
- 3) Inform the service order beginning and the end
- 4) Select the painter

To report issue, click in the key <Ok>.

Observation: options <Service order> and <Painter> are configurable from main menu option - <System> - <Configuration> and depending on options selected in <Preferences> those fields can appear or not in the report filter.

Report Description

The report will show, for the selected line and users, the quantity in grams of VOC issued for each complement in the informed period. For each consumed complement, o complement code, its description, the consumed volume (in liters), VOC value (in grams per liters) and a quantity of Issued VOC (in grams) will be shown.

 **VOC emission - complements** Period: 1/8/2015 - 23/11/2015

[Company Name]

Code	Description	Packaging	Volume (l)	VOC (lb/gal)	VOC emission
Flex additive for plastics					
408.02000.04	WANDA ELASTIFICANTE 5100	0,90 l	0,038	5,61	0,06
	Total:		0,038		0,06
Hardener					
418.03093.54	ENDURECEDOR PU 3093	0,50 l	20,476	4,64	25,09
	Total:		20,476		25,09
Thinner					
407.04030.05	THINNER PARA POLIESTER / PU	18,00 l	0,117	7,24	0,22
	Total:		0,117		0,22
	Grand Total:		20,631		25,37

Figure: VOC issue report

4.10 VOC report per service order

This report will be displayed in the main menu of the system only when the option is selected <See VOC information> from the main menu option - <System> - <Configuration>.

This report shows the total VOC emission for each formula produced in a certain period and grouped per service order. For the emission of the report you must inform some parameters. The exhibit the follows illustrates the window to the input parameters of the report:

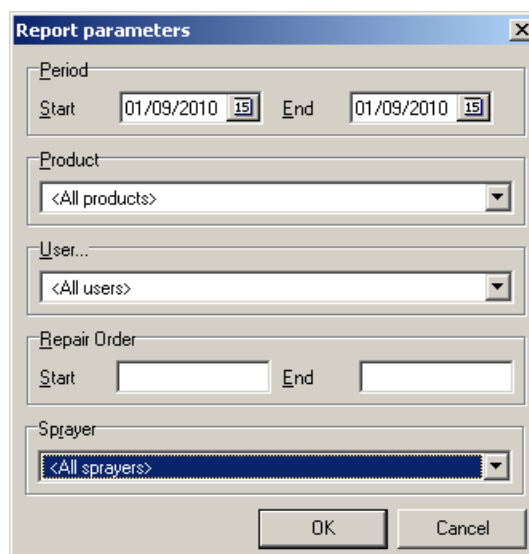


Exhibit: parameters window to report production

To issue the report, enter the following parameters:

- 1) Period: between the initial date and final date in order for the period to be considered;
- 2) Select a product line or <All lines>;
- 3) Select a user or <All users>;
- 4) Inform the start and end times of the service order;
- 5) Select the sprayer.

To issue the report, click the <Ok> button.

Note: the options <Service Order> and <Painter> are configurable from the main menu option - <System> - <settings> and depending on the option, when selecting <preferences> these options can appear or not in the report filter.

Report description

The report issued will show, for the line and users selected, the amount in grams of VOC issued in the production of each formula within the informed period. For each formula produced the number of the service order, the description of the color produced, the amount produced (in liters), the average value of VOC (in grams per liter) and amount of VOC emitted (in grams) will be displayed.

AKZONOBEL VOC report per repair order Period: 28/10/2010 - 10/11/2010
Repair orders: 7 -
Martelinho de Ouro

Order	Color	Volume (l)	VOC (g/l)	VOC emission (g)
28/10/2010				
7	Dk. Chestnut	1,000	513,786	513,786
7	Ebony Black	1,000	720,308	720,308
7	Med. Ember	1,000	518,530	518,530
Total		3,000		1,752,624
8	Black	1,000	516,684	516,684
8	White/Light Grey	1,000	481,116	481,116
Total		2,000		997,800
9	Rio Red	0,900	425,333	382,800
Total		0,900		382,800
28/10/2010		Total	5,900	3,133,223
Total in the period		5,900		3,133,223

Exhibit: VOC report per service order

4.11 Toners - Stock control

This report displays the quantity in stock of the bases of each of the product lines. For the issuance of the report you must select the parameter that indicates how will calculate the cost price: the current price of the product or the average cost of inventory. The following figure shows the window for the input of the report parameters:

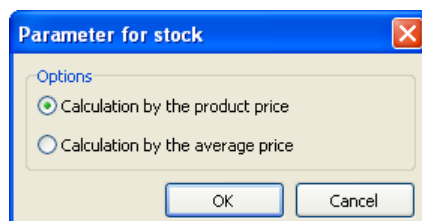


Figure: Parameter window to issue of the report

In calculating the price is also used the setting of taxes made from the main menu option - <System> - <Percentages>. Therefore, the report can display up to 4 cost prices as configured per settings:

- Calculating the price of the product with the application of taxes;
- Calculating the price of the product without application taxes;
- Calculating the average price with taxes application;
- Calculating the average price without application taxes.

This report shows the base amounts in stock of each one of the product lines. To each base, the code, the description, cost price, amount (current) in stock (in units), minimum amount in stock, the reposition value (if any) and the amount in stock expressed in units are displayed.

Note: the reposition value refers to the difference between the value defined as minimum and the amount (current) in stock.

AKZO NOBEL		Toner stock (Units)					
		Acabit					
Code	Color Description	Cost	Stock	Minimum	Re-stock	Liters	Packaging
Autobase							
✓ 666	BINDER 666	0,00	0,00	0,00		0,00	3,751
✓ 334EB	BLUE GREEN PEARL 334EB	0,00	0,00	0,00		0,00	1,001
✓ 341	BLUE GREEN TRANSP. 341	0,00	0,00	0,00		0,00	1,001
✓ 332BA	BLUE PEARL 332BA	0,00	0,00	0,00		0,00	1,001
✓ 575	BLUE TRANSPARENT 575	0,00	0,00	0,00		0,00	1,001
✓ 533	BLUE VIOLET TRANSP. 533	0,00	0,00	0,00		0,00	1,001
✓ 261	BRIGHT BLUE TRANSPARENT 261	1,37	150,00	2,00		150,00	1,001
✓ 538	BRIGHT MARRON TRANSP. 538	0,00	0,00	0,00		0,00	1,001
✓ 568	BRIGHT OXIDE YELLOW 568	0,00	-0,58	0,00	0,58	-0,58	1,001

Figure: base stock report

4.12 Toners - Purchase suggestion

This report displays the quantity in stock of the bases of each of the product lines and their quantities necessary for replacement. For the issuance of the report you must select the parameter that indicates how will calculate the cost price: the current price of the product or the average cost of inventory. The following figure shows the window for the input of the report parameters:

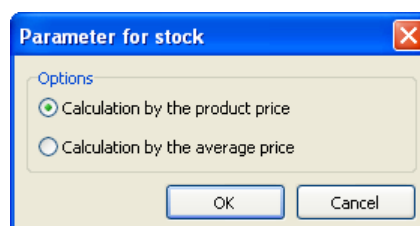


Figure: Parameter window to issue of the report

In calculating the price is also used the setting of taxes made from the main menu option - <System> - <Percentages>. Therefore, the report can display up to 4 cost prices as configured per settings:

- Calculating the price of the product with the application of taxes;
- Calculating the price of the product without application taxes;
- Calculating the average price with taxes application;
- Calculating the average price without application taxes.

This report shows the base amounts in stock of each one of the product lines. To each base, the code, the description, cost price, amount (current) in stock (in units), minimum amount in stock, the reposition value (if any) and the amount in stock expressed in units are displayed. This report is actually a summary of the base stock report, in which only shows the bases to which reposition values are available, i.e., the amount in stock is lower than the amount defined as minimum.

Note: the reposition value refers to the difference between the value defined as minimum and the amount (current) in stock.

At the end of the report a total cost value of the bases listed is shown.


 Toner purchase suggestion (Units) Acabit							
Code	Color Description	Cost	Stock	Minimum	Re-stock	Liters	Packaging
Autobase Plus 100:50							
Q878	BLUE VIOLET	0,00	-0,02	0,00	0,02	-0,02	1,00 l
Q328	BROWN RED OXIDE TR	1,43	3,92	5,00	1,08	3,92	1,00 l
Q811B	METALLIC EXTRA FINE	0,00	-0,11	0,00	0,11	-0,11	1,00 l
Q811E	METALLIC FINE	0,00	-0,05	0,00	0,05	-0,20	3,75 l
Q951F	PEARL GREEN MEDIUM	0,00	-0,01	0,00	0,01	-0,01	1,00 l
Q925M	PEARL SUPER RED MEDIUM COARSE	2,47	1,70	5,00	3,30	1,70	1,00 l
Q975S	PEARL VIOLET VERY	0,00	-0,10	0,00	0,10	-0,10	1,00 l
Q911M	PEARL WHITE MEDIUM COARSE	2,47	1,23	2,00	0,77	1,23	1,00 l
Q271	RED MAROON TR	1,33	1,98	2,00	0,04	1,98	1,00 l
Q070	TRANSPARENCY ENHANCER	0,00	-0,04	0,00	0,04	-0,04	1,00 l
Q110	WHITE	0,00	-1,16	0,00	1,16	-4,35	3,75 l
Q190	WHITE GREY TR.	0,00	-1,61	0,00	1,61	-1,61	1,00 l
Q195	WHITE TRANSPARENT	0,00	-0,32	0,00	0,32	-0,32	1,00 l
Total cost		15,45					

Figure: base purchase suggestion report

4.13 Ancillaries - Stock

This report shows the complement amount in stock. To each complement, the code, description, cost price, amount (current) in stock (in units), the minimum amount in stock, the reposition value (if any) and the capacity of the package used, expressed in liters are displayed.

Note: the reposition value refers to the difference between the value defined as minimum and the amount (current) in stock.


 Ancillaries Stock (Units) Acabit						
Code	Color Description	Cost	Stock	Minimum	Re-stock	Packaging
488.00200.03	ANTISTATIC DEGREASER 1L	0,00	0,00	0,00		1,00 l
540.11021.01	APLICADOR DE POLYSTOP	0,00	0,00	0,00		1,00 un
488.04003.15	AUTOCLEAR	0,00	0,00	0,00		5,00 l
488.04003.03	AUTOCLEAR 1L	0,00	0,00	0,00		1,00 l
488.04005.03	AUTOCLEAR MS	0,00	0,00	0,00		1,00 l
488.04005.05	AUTOCLEAR MS	0,00	0,00	0,00		18,00 l
488.06000.03	AUTOCLEAR PLUS	0,00	0,00	0,00		1,00 l
488.06000.15	AUTOCLEAR PLUS	0,00	0,00	0,00		5,00 l
488.06000.05	AUTOCLEAR PLUS	0,00	0,00	0,00		18,00 l

Figure: complement in stock report

4.14 Ancillaries - Purchase suggestion

This report shows the complement amount in stock. To each complement, the code, description, cost price, amount (current) in stock (in units), the minimum amount in stock, the reposition value (if any) and the capacity of the package used, expressed in liters are displayed. This report is actually a summary of the complement amount in stock report, in which only shows the complements to which reposition values are available, i.e., the amount in stock is lower than the amount defined as minimum.

Note: the reposition value refers to the difference between the value defined as minimum and the amount (current) in stock.


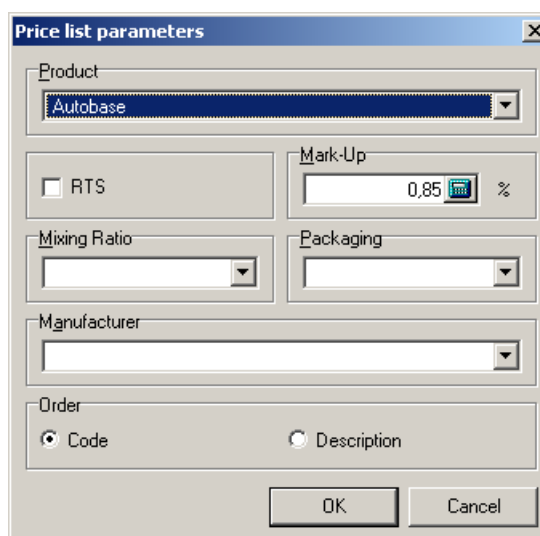
 Ancillaries purchase suggestion (Units) Acabit						
Code	Color Description	Cost	Stock	Minimum	Re-stock	Packaging
404.07578.04	MASSA RÁPIDA CINZA 0,9L	0,00	0,00	10,00	10,00	0,90 l
404.07080.01	MASSA SINTÉTICA 3,6 L	0,00	0,00	10,00	10,00	3,60 l
404.07400.01	MASSA SINTÉTICA BRANCA 3,6 L	0,00	0,00	10,00	10,00	3,60 l

Figure: complement purchase suggestion reports

4.15 Price lists

This report shows a list of formula prices. To issue this report you must inform some parameters. The following figure illustrates the window to enter the report parameters:



The dialog box titled "Price list parameters" contains the following fields and controls:

- Product:** A dropdown menu with "Autobase" selected.
- RTS:** An unchecked checkbox.
- Mark-Up:** A text field containing "0,85" followed by a percentage icon.
- Mixing Ratio:** A dropdown menu.
- Packaging:** A dropdown menu.
- Manufacturer:** A dropdown menu.
- Order:** Two radio buttons, "Code" (selected) and "Description".
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

Figure: parameter window to issue the report


To issue the report, inform the following parameters:

- 1) Select a product line
- 2) Select the option <ready to use> in case you only want the lines that are ready to use
- 3) Inform the margin to be searched
- 4) Inform dilution
- 5) Select package
- 6) Select manufacturer
- 7) Choose the way the report will be ordered, by Code or Description

To issue the report, click the <Ok> button.

Report description

This report shows the formula prices. To each formula, the code, description, date, version, alternative, start, end, price are displayed.



Price List

Product: Autobase

Packaging: 1 LITRO - OEM: Mercedes Benz

Acabit

Code	Color Description	Date	Version	Alternative	Start	End	Price
Mercedes Benz							
DB1611	Sinabeige	01/06/1989	1	1	1988	1993	1,00
DB1623	Hellelferbein/Taxi	12/11/1992	2	1	1971	2006	1,00
DB1623(G)	Hellelferbein/Taxi	31/07/2000	1	1	1971	2006	1,00
DB1623(L)	Hellelferbein/Taxi	01/08/2000	1	1	1971	2006	1,00
DB1631	Safaribeige	18/07/1994	2	1	1988	1993	1,00
DB1637(R)	Kanariengelb	11/01/2002	1	1	1988	2004	1,00
DB1658	Hellelferbein	17/10/1990	1	1	1990	2000	1,00
DB167	Tiefdunkelgrau	12/04/2006	1	1	1984	2000	1,00
DB1695	Classic Yellow	18/02/2004	1	1	2003	2004	1,00
DB1697	Beige	29/03/2004	2	1	2001	2005	1,00

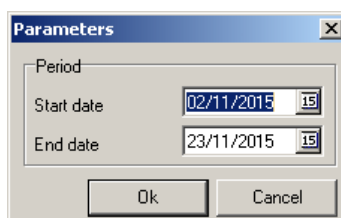
Figure: formula price report

4.16 Excel

In this topic, options to export reports to then compatible file with Excel are grouped.

4.16.1 Purchases

This report option exports the report of purchases performed in a determined period for then compatible file with Excel. For the report issue, it must be informed the period to be analyzed. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with a title bar and a close button. It contains a 'Period' section with two date pickers. The 'Start date' is set to 02/11/2015 and the 'End date' is set to 23/11/2015. Both date pickers have a small calendar icon to their right. At the bottom of the dialog are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for report issue

To report issue, inform the following parameters:

1) Period: enter with initial date and final date for the period to be considered;

To report issue, click in the key <Ok>.

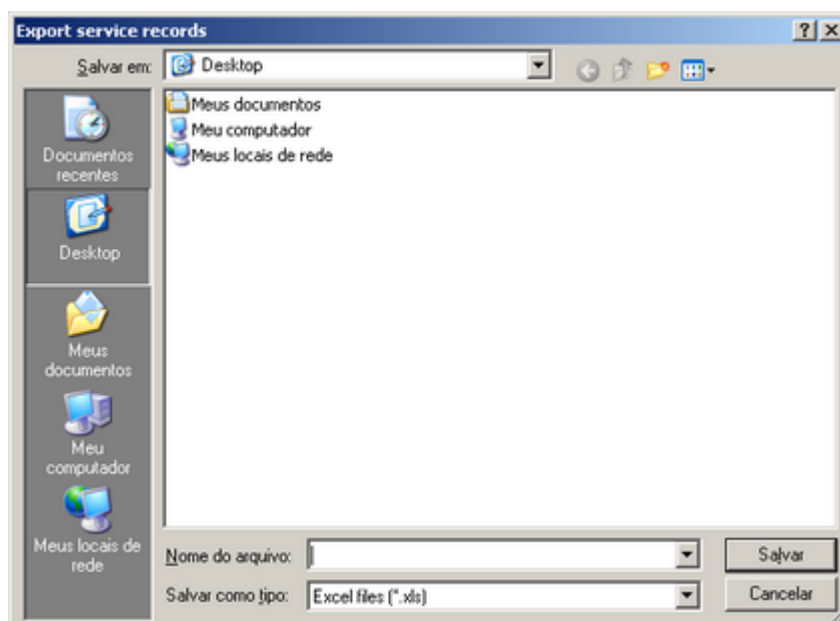


Figure: window of the path to export the file

The window shown in the previous figure is used to save a file.

To export the report generated by an Excel spreadsheet, follow these steps:

- Select the destination directory for the export file in the field <Save in>
- Inform the export file name, in the field <File name>

The generated report will be generated in a *Excel spreadsheet with the informed name.

(*) *Excel is a trademark registered by Microsoft Corporation.*

4.16.2 Service orders

This report option exports the relation of service orders performed in a determined period for then compatible file with Excel. For the report issue, it must be informed the period to be analyzed. The following figure illustrates a window for the report parameter entry:

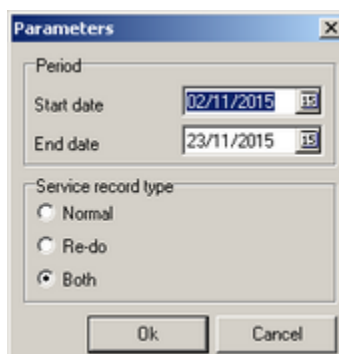


Figure: window of parameters for report issue

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will

be accounted only vehicles whose service order is *Re-work* type.

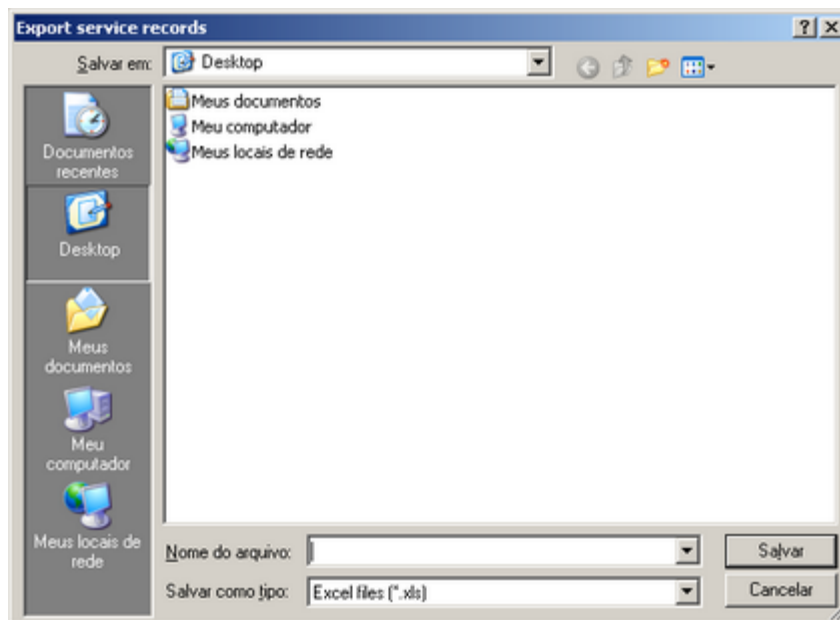


Figure: window of the path to export the file

The shown window in the previous figure is used to save a file.

To export the report generated by an Excel spreadsheet, follow these steps:

- Select the destination directory for the export file in the field <Save in>
- Inform the export file name, in the field <File name>

The generated report will be generated in a *Excel spreadsheet with the informed name.

(*) *Excel* is a trademark registered by Microsoft Corporation.

4.16.3 Service order items

This report option exports the relation of items used in service orders in a determined period for then compatible file with Excel. For the report issue, it must be informed the period to be analyzed. The following figure illustrates a window for the report parameter entry:

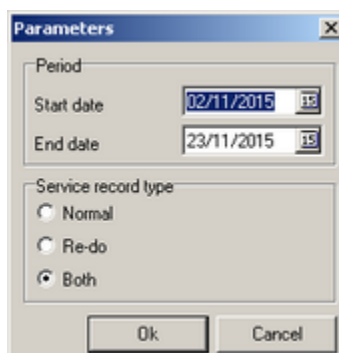


Figure: window of parameters for report issue

- 1) Period: enter with initial date and final date for the period to be considered;

2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

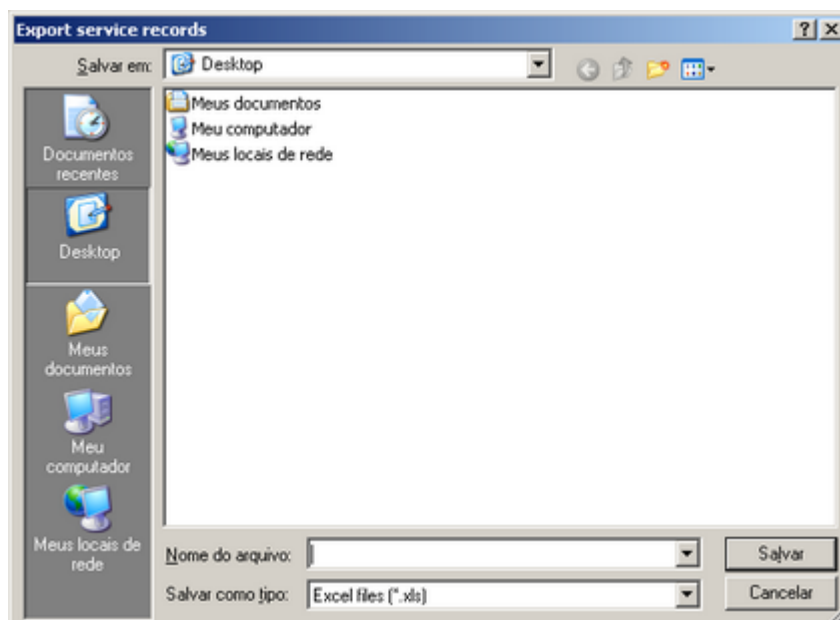


Figure: window of the path to export the file

The shown window in the previous figure is used to save a file.

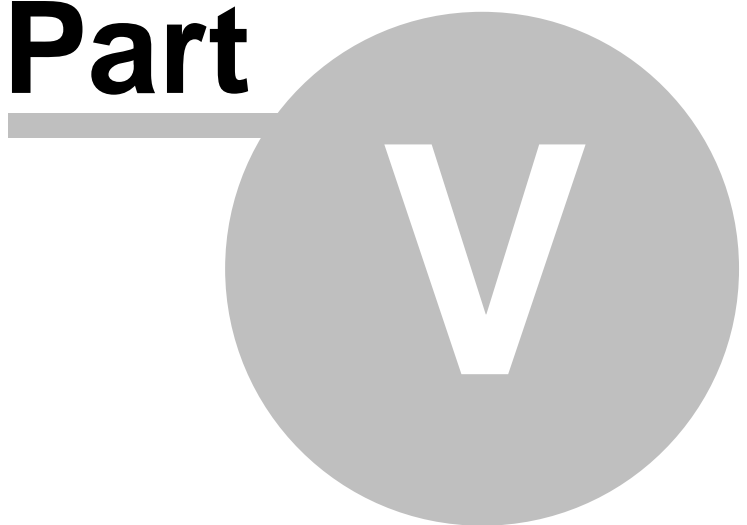
To export the report generated by an Excel spreadsheet, follow these steps:

- Select the destination directory for the export file in the field <Save in>
- Inform the export file name, in the field <File name>

The generated report will be generated in a *Excel spreadsheet with the informed name.

(*) *Excel* is a trademark registered by Microsoft Corporation.

Part

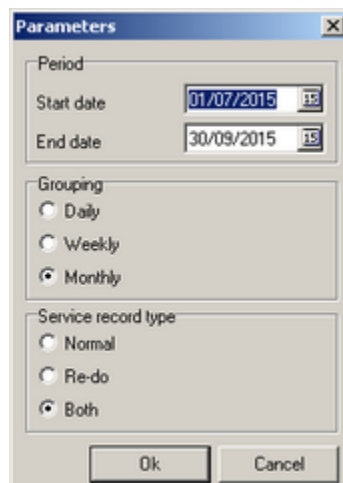


5 Graphs

Here all graphics issued by system are grouped.

5.1 Cars repaired

This report shows the number of cars that were repaired per day, week or month. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with the following fields and options:

- Period:**
 - Start date: 01/07/2015
 - End date: 30/09/2015
- Grouping:**
 - ☐ Daily
 - ☐ Weekly
 - ☒ Monthly
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

At the bottom are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the grouping type that should be considered (Day, Weekly, or Monthly)
- 3) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show, the number of repaired cars, *in each one of comprised dates in the informed period*. In the report graph horizontal axis appear the dates in which at least a repaired occurred; in the graph vertical axis are filled the amount of vehicles that were repaired. Dates that appear in the horizontal axis (dates in which there was a vehicle repair) correspond to the exit date (closing) of service order.

Tip: to view how many vehicles were repaired in a determined date, inform the desired date for the initial date and final period.

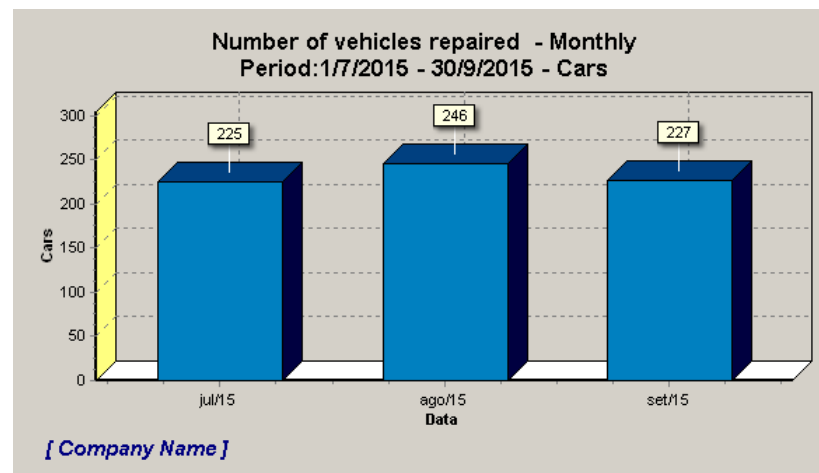
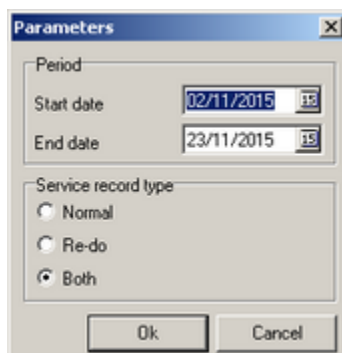


Figure: report of number of repaired cars

5.2 Billing per job source

This report shows billing data per payer source for then determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The 'Parameters' window contains the following fields and options:

- Period:**
 - Start date: 02/11/2015
 - End date: 23/11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

Buttons: Ok, Cancel

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show the paint billing, total billing, and the amount of vehicles that were repaired, per payer source, in the informed period. In the report graph horizontal axis, the payer sources are filled with their respective quantity values of repaired parts; in the graph vertical axis are filled the respective values of paint billing and total billing.

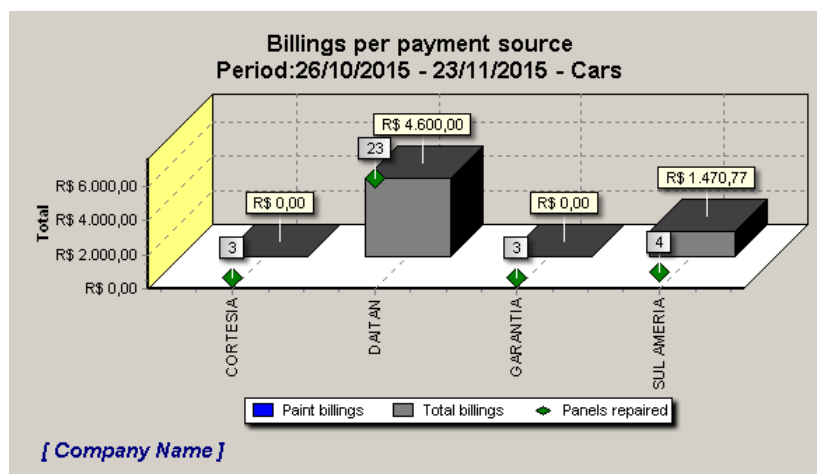
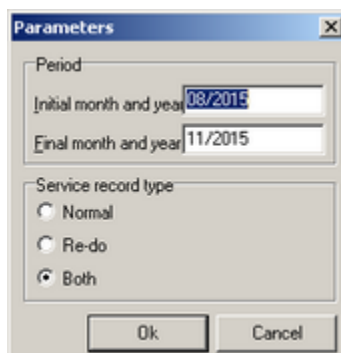


Figure: graphic of billing per payer source

5.3 Cost per panel repaired

This report shows the cost (average) per repaired part in a determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The 'Parameters' window contains the following fields and options:

- Period:**
 - Initial month and year: 08/2015
 - Final month and year: 11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

Buttons: Ok, Cancel

Figure: window of parameters for report issue

To report issue, inform the following parameters:

- 1) Period: enter with the initial and final month/year for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

This report shows the average cost per repaired part, for then determined informed period. In the graphic horizontal axis are filled the months comprised in the informed period. In the graph vertical axis are filled the average expenditure values obtained per part. For then determined month the average expenditure is calculated of the following way: total service order spent values are added, and then, divided this value by number of panels that were repaired. For each designed monthly average cost, it is indicated through different colors the participation percentage in the product cost of Sikkens system and Abrasive and other system.

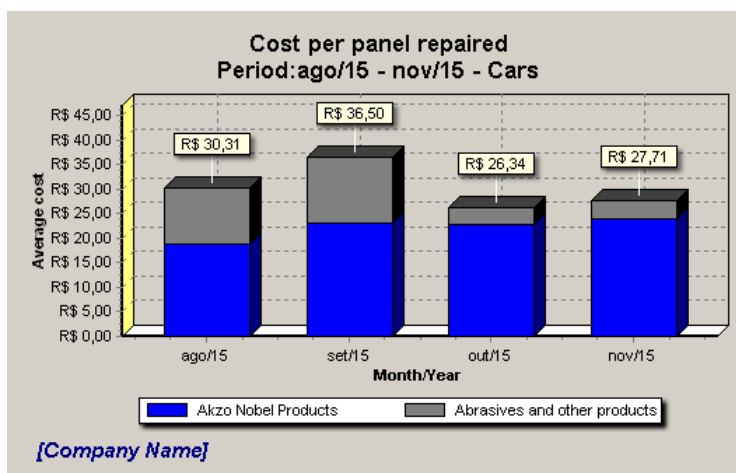
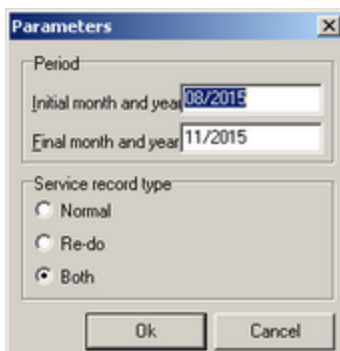


Figure: report of cost per repaired part

5.4 Material costs as % of paint billings

This report shows the values of material spent percentage on *paint labor force* billing for then determined informed period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with the following fields and options:

- Period:**
 - Initial month and year: 08/2015
 - Final month and year: 11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

At the bottom are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for report issue

To report issue, inform the following parameters:

- 1) Period: enter with the initial and final month/year for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show the values of material spent percentage on paint labor force billing, *in each month comprised* in the informed period. In the report graph horizontal axis, it appears the months in which at least a repaired occurred; in the graph vertical axis are filled the spent percentage obtained for the listed months in the informed period.

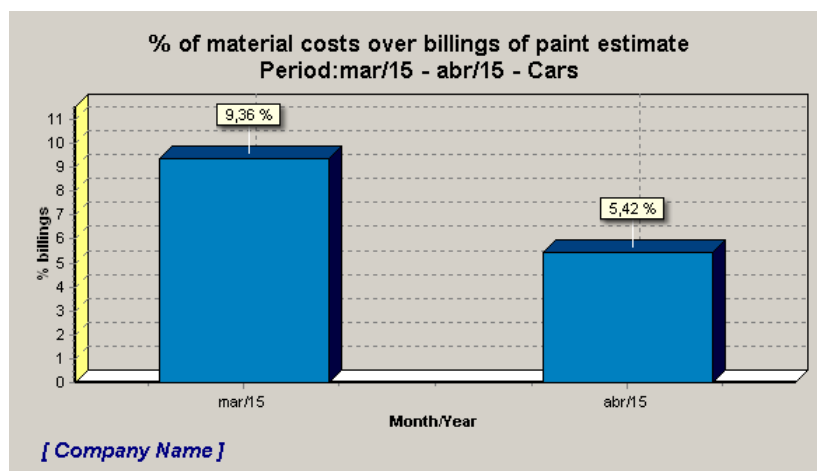
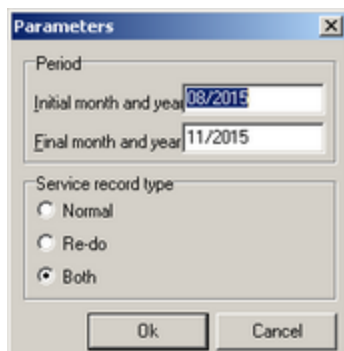


Figure: report of material spent percentage on paint labor force billing

5.5 Material costs as % of total billings

This report shows the values of material spent percentage on *total labor force* billing for then determined informed period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The 'Parameters' window contains the following fields and options:

- Period:**
 - Initial month and year: 08/2015
 - Final month and year: 11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

Buttons: Ok, Cancel

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with o month/year initial and final for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show the values of material spent percentage on total labor force billing, *in each month comprised* in the informed period. In the report graph horizontal axis, it appears the months in which at least a repaired occurred; in the graph vertical axis are filled the spent percentage obtained for the listed months in the informed period.

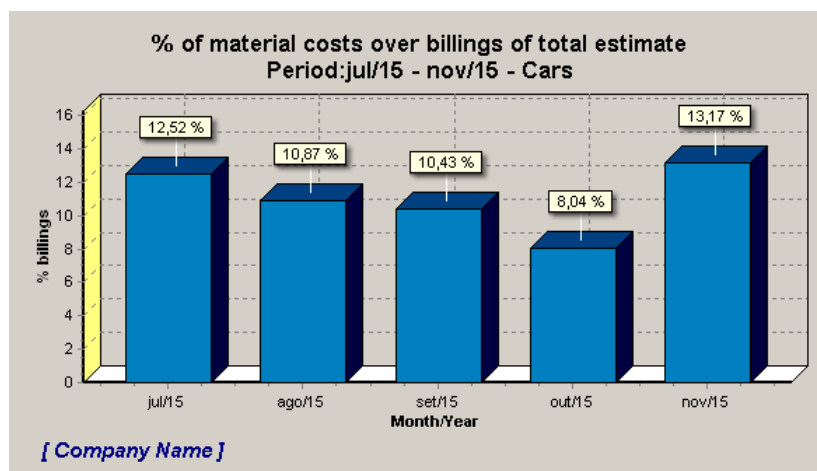
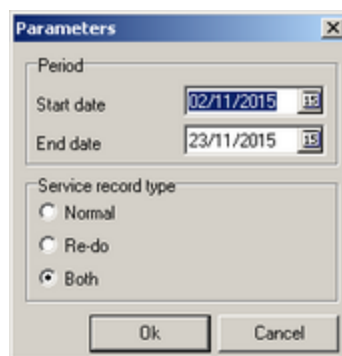


Figure: graphic of material spent percentage on total labor force billing

5.6 Costs per material type

This report shows expenditure percentage per material type (*Sikkens and Abrasive products and other Systems*), For then determined informed period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with the following fields and options:

- Period:**
 - Start date: 02/11/2015
 - End date: 23/11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both
- Buttons: Ok, Cancel

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show a *Pizza* type graphic, in which total expenditure of materials in the informed period are grouped in the groups of materials from *Sikkens and Abrasive products and other Systems*. In the designed graphic will be shown *each group percentage* in which in the report top right corner are shown the absolute expenditure values per group.

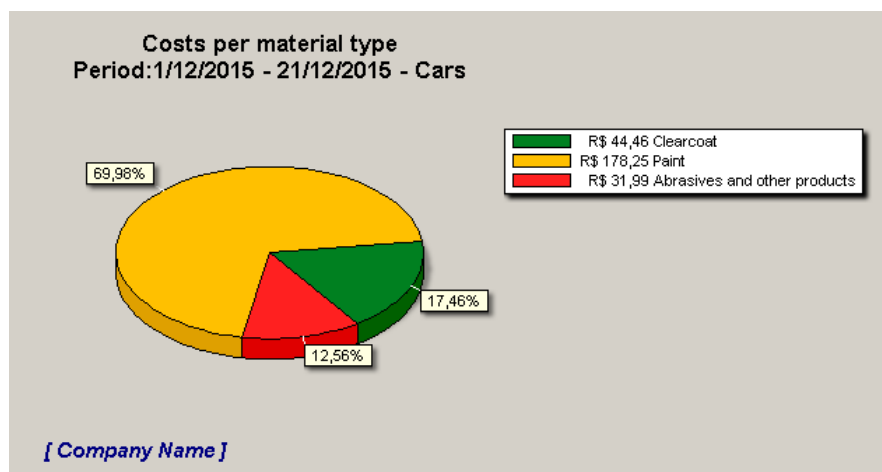
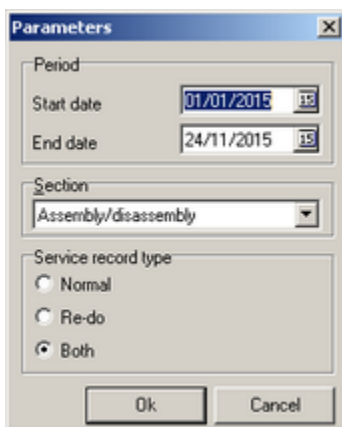


Figure: graphic of expenses per material type

5.7 Costs per employee

This report shows the expense of materials per productive one for then determined time period and informed productive area. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with the following fields and options:

- Period:**
 - Start date: 01/01/2015
 - End date: 24/11/2015
- Section:** A dropdown menu showing 'Assembly/disassembly'.
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both
- Buttons: 'Ok' and 'Cancel'.

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Area: select a productive area that should be considered.
- 3) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show, for each productive, the sum of everything expended divided by produced part total, taking into account produced part is a quantity of informed parts multiplied by factor of individual multiplication for each part.

Example: marked parts (Hood and Roof), hood multiplying factor = 2, and roof multiplying factor = 3, so that it will be contabilized 2 hood parts and 3 roof parts, this multiplying factor is informed in service order, tab Parts.

According to informed period and selected area, it will be shown in the report graph horizontal axis, the products that had some material expenditure (for the informed area) in the period; in the graph vertical axis, they are filled the totals consumed for each one of listed productive ones. For each productive one, the vertical bars are divided in regions proportional to percentage of materials consumed from *Sikkens and Abrasive products and other* systems.

The shown window possesses two *tabs* indicating total value and the average per part each one.

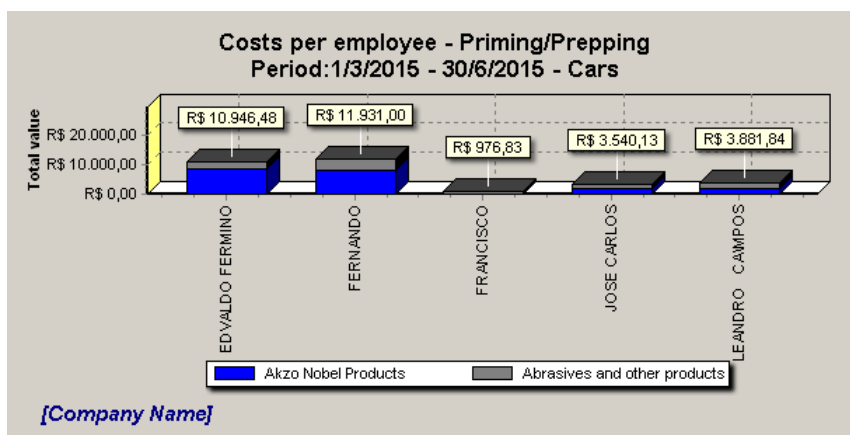


Figure: graphic of total expenditure of materials per productive

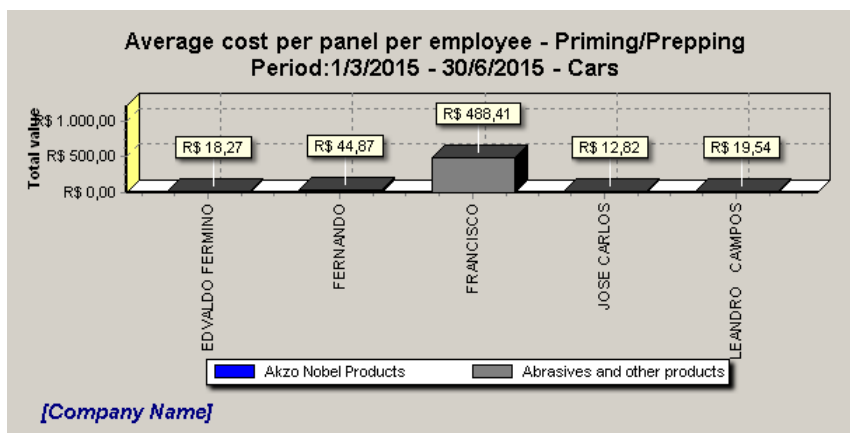
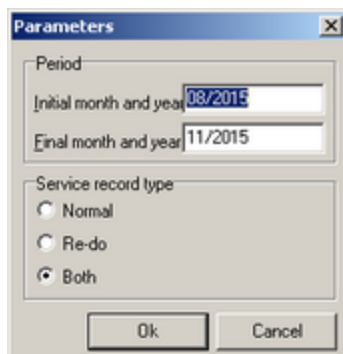


Figure: graphic of average expenditure of parts per productive

5.8 Average number of panels repaired

This report shows a worked part average in a determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The image shows a 'Parameters' dialog box with the following fields and options:

- Period:**
 - Initial month and year: 08/2015
 - Final month and year: 11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

At the bottom are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with the initial and final month/ year for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

This report shows, for each comprised month in the considered period, the average number of parts (panels) of vehicles that were repaired. This value (average) is obtained in dividing the total of panels repaired in the month by the number of service orders performed (closed). In the report graph horizontal axis, the comprised months in the informed period are filled; in the vertical axis the averages of worked parts are filled.

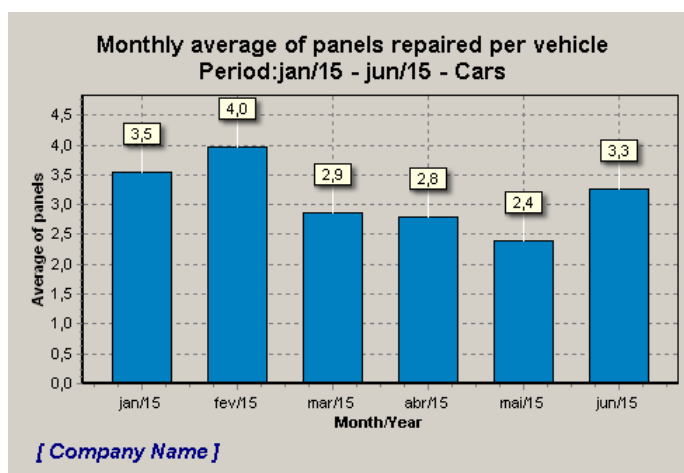
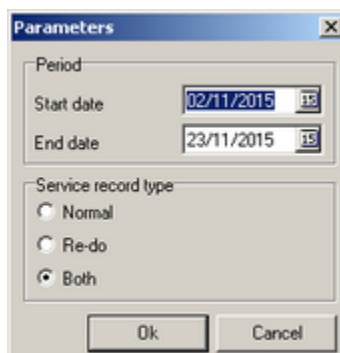


Figure: graphic of worked part average

5.9 Billings / Panel per job source

This report shows the distributed data of service source billing and repaired part distribution in a period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



A screenshot of a 'Parameters' dialog box. It contains two sections. The first section, 'Period', has 'Start date' set to '02/11/2015' and 'End date' set to '23/11/2015'. The second section, 'Service record type', has three radio buttons: 'Normal', 'Re-do', and 'Both'. The 'Both' radio button is selected. At the bottom are 'Ok' and 'Cancel' buttons.

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with o month/year initial and final for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show service source billing distribution and a repaired part distribution in the informed period. Each distribution will be shown in *pizza* type graphic.

The shown window possesses two *tabs*, one for each distribution (*billing and parts*).

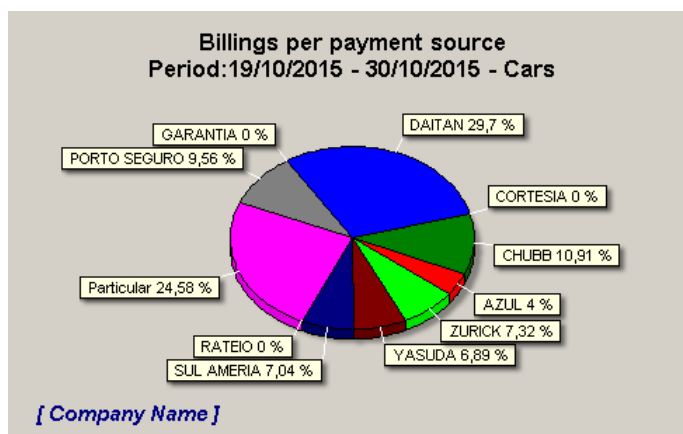


Figure: payer source billing distribution

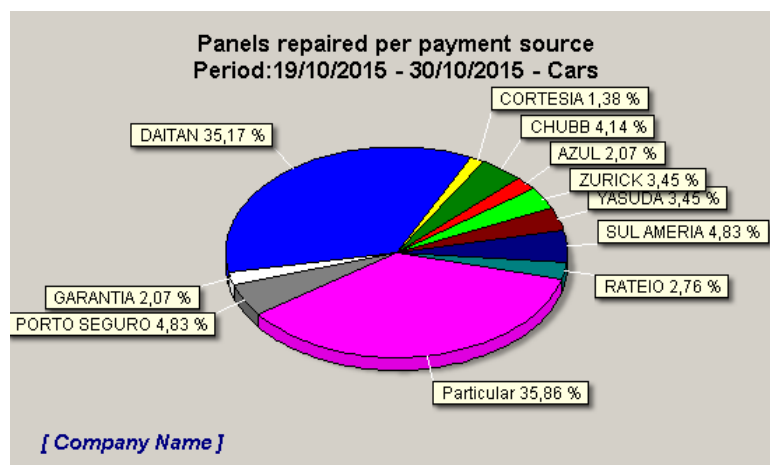
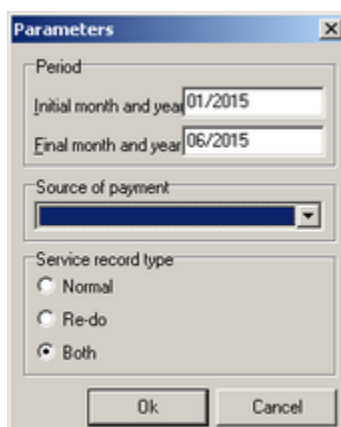


Figure: payer source repaired part distribution

5.10 Billings evolution per job source

This report shows the evolution of payer source billing for then determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The 'Parameters' window contains the following fields and options:

- Period:**
 - Initial month and year: 01/2015
 - Final month and year: 06/2015
- Source of payment:** A dropdown menu.
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

Buttons: Ok, Cancel

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial and final month/year for the period to be considered;
- 2) Select a payer source;
- 3) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show for the selected payer source, billing evolution, in the informed period. In the report graph horizontal axis, months comprised in the informed period are filled, with their respective quantity values of repaired vehicles; in the graph vertical axis, the totals of billing obtained through the period and the respective paint billing values are filled.

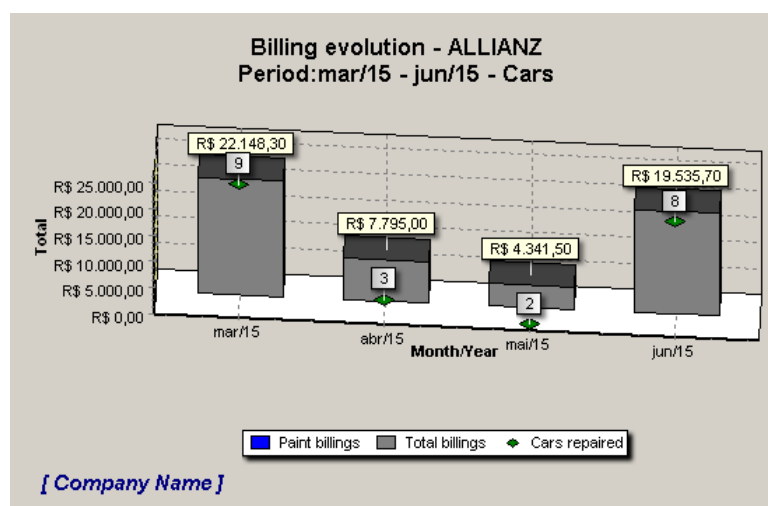
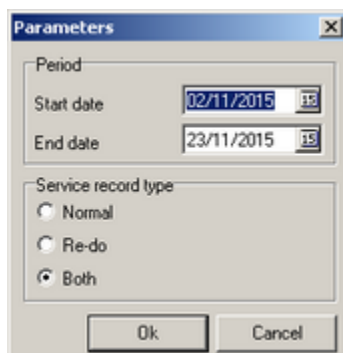


Figure: graphic of payer source billing evolution

5.11 Delivery punctuality

This report shows data of punctuality of delivery of vehicles for then determined period. For the report issue, it is necessary to inform some parameters. The following figure illustrates a window for the report parameter entry:



The 'Parameters' window contains the following fields and options:

- Period:**
 - Start date: 02/11/2015
 - End date: 23/11/2015
- Service record type:**
 - ☐ Normal
 - ☐ Re-do
 - ☒ Both

Buttons: Ok, Cancel

Figure: window of parameters for graphic issue

To report issue, inform the following parameters:

- 1) Period: enter with initial date and final date for the period to be considered;
- 2) Select the service order type to be considered. For example, when *Re-work* option is selected, it will be accounted only vehicles whose service order is *Re-work* type.

To report issue, click in the key <Ok>.

Report Description

The issued report will show, in a *pizza* type graphic, the percentage of delivered vehicles, ahead of schedule, on time, and after the deadline (original) of service orders. For the finished service orders *after the original deadline (planned date)* are grouped the totals of vehicles in the following categories: *up to 3 days and more than 10 days*. Service orders closing in the informed period are considered.

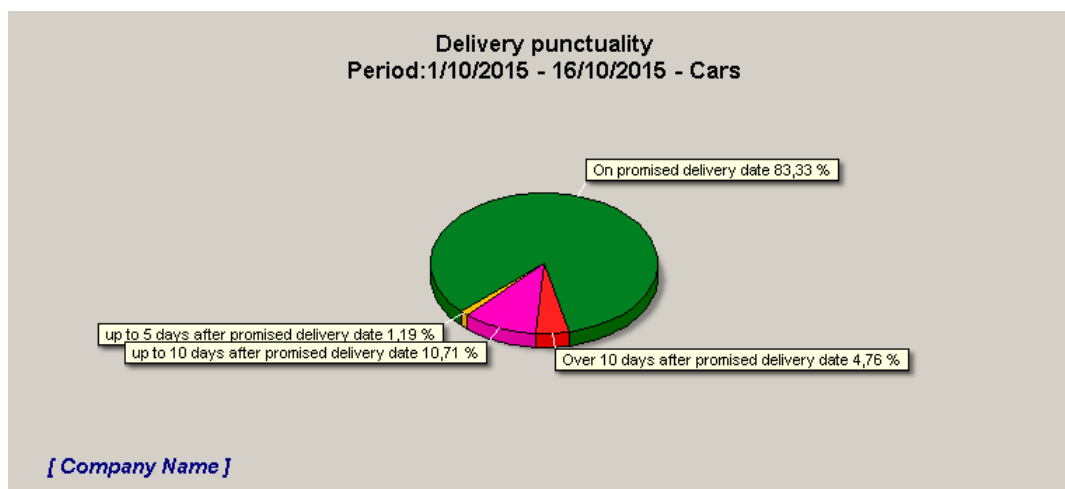


Figure: graphic of punctuality of delivery

5.12 Cost of re-do's

This report shows data of re-work cost of service orders for then determined period informed. For the report issue it must be informed the desired period. The following figure illustrates a window for the report parameter entry:

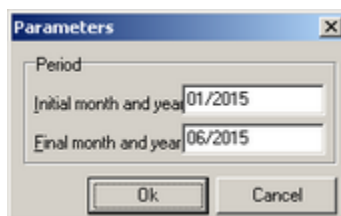


Figure: window of parameter for graphic issue

To report issue, inform o desired period:

Enter with initial and final month/year for the period to be considered;

To report issue, click in the key <Ok>.

Report Description

The issued report will show o total number of reworked parts as well as the total expense value in service orders, *in each month comprised* in the informed period. In the report graph horizontal axis, it appears the months in which there was at least a re-work; in the graph vertical axis, total expenses per month are filled. In the vertical bars, it is highlighted shown the number of parts that were reworked in the referred month.

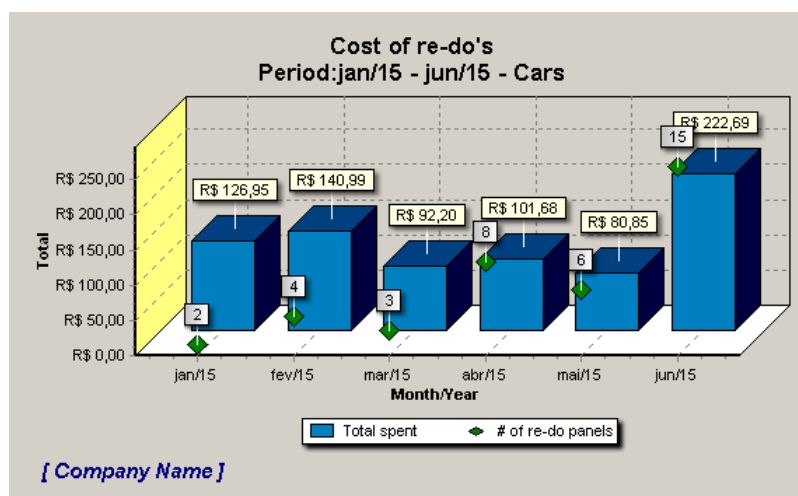


Figure: graphic of re-work cost

5.13 Re-do rate

This report shows data of re-work index of service orders for then determined informed period. For the report issue, it must be informed the desired period. The following figure illustrates a window for the report parameter entry:

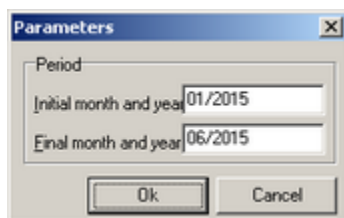


Figure: window of parameter for graphic issue

To report issue, inform o desired period:

Enter with initial and final month/year for the period to be considered;

To report issue, click in the key <Ok>.

Report Description

The issued report will show the percentage of re-work, *in each month comprised* in the informed period . In a given period, it will be calculated the percentage of a number of re-work orders in relation to total number f orders. In the report graph horizontal axis, it appears months in which there were at least a re-work; in the graph vertical axis, the respective percentages are filled.

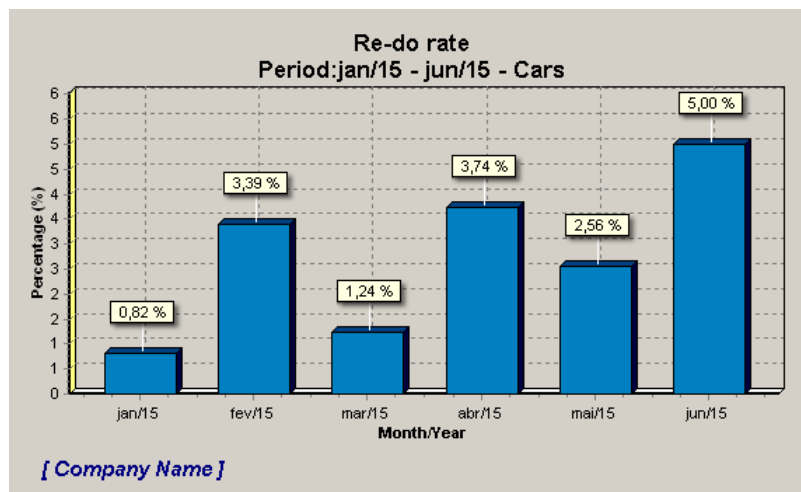


Figure: graphic of re-work index

Part

VI

6 Tools

This option from the main menu contains the options to locate the codes, access to datasheet of the system and the data import and export functions.

6.1 Location

This function allows locating the color code of a specific vehicle model of a manufacturer. The following figure shows illustrates, through an example, the window to locate the color code of the vehicle:

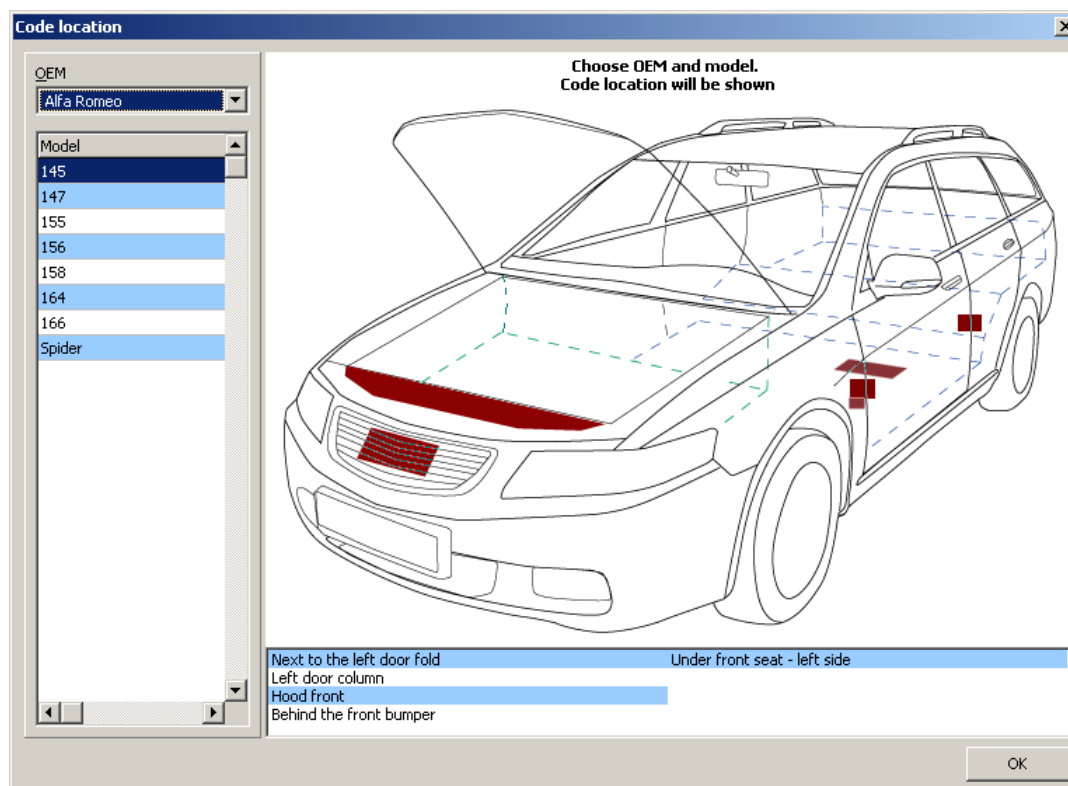


Figure: window to locate the color code of the vehicle

To locate a specific color code, follow the steps:

1. Select a manufacturer;
2. Select the vehicle model.

When the manufacturer and vehicle model are selected, the location of the vehicle color code will be displayed in a schematic reproduction of a vehicle. In addition to the highlight (in dark red) the location description is displayed.

6.2 Documentation

This function shows the available documents about the Akzo products. In order to view such documents the **Acrobat Reader*** program needs to be installed in the computer where the system is being executed.

A directory structure will be assembled containing reference folders, according to the directory

structure provided by Akzo.

The following figure shows illustrates, through an example, the document folders displayed:

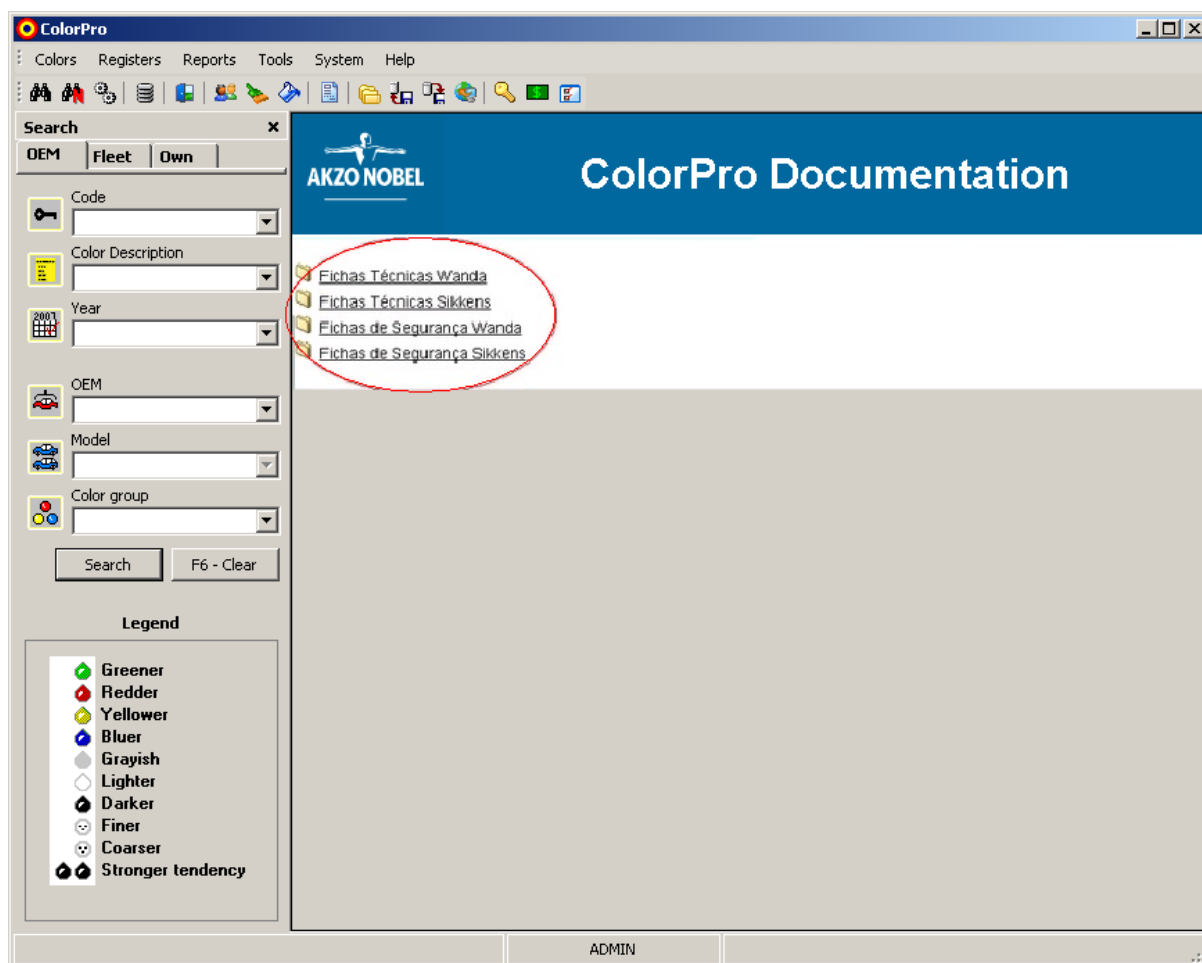


Figure: document folders

The structure of the document folders can be divided in other subfolders. In the figure we can see, through an example, the last level of folders in which the documents are located:

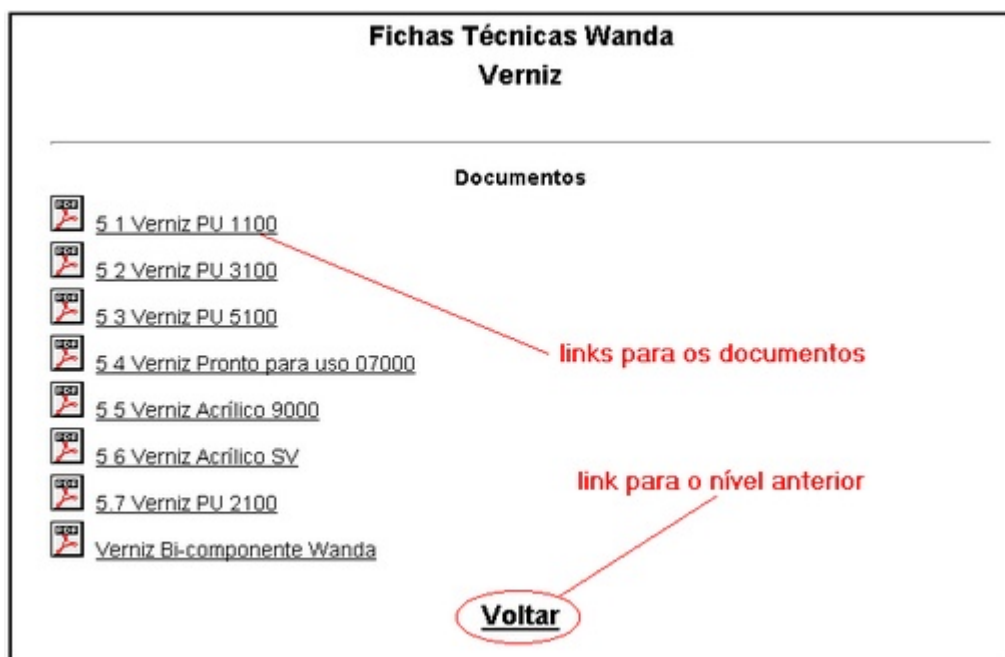


Figure: details of the documents in a folder

Above we can see the links to documents and the link to the previous level. The first ones to be clicked on open the document to be visualized and the last one displays the previous referred page.

Note: in case the documents are not found, a message will be displayed to the user.

(*) Acrobat Reader is a trademark of Adobe.

6.3 Database

Import and export functions for formulas and update files.

6.3.1 Export

This option from the <Tools> menu is used to export the formulas from the local database to another database. When called, a window will be displayed so the password can be entered:

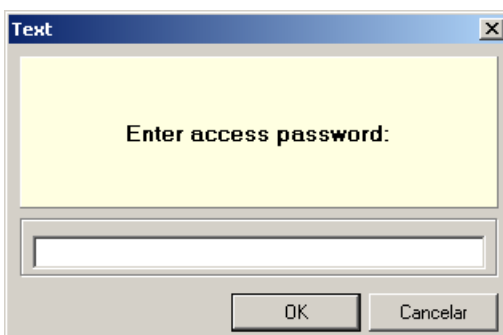


Figure: password window

Note: the password to be entered is a password provided by Akzo, and not the current user's password.

After confirmation, export files will be generated (as text).

Access permission

The access to this function is controlled by the user profile logged in to the system, allowing only users with management profiles.

6.3.2 Import

This option from the <Tools> menu is used to import formulas arising from another database to the local database accessed by the system. In case the documents are not found, a message will be displayed to the user, as illustrated below:

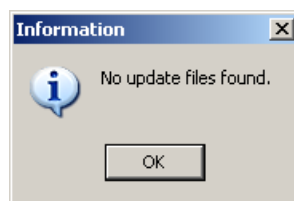


Figure: import function warning

Access permission

The access to this function is controlled by the user profile logged in to the system, allowing only employees with management profiles.

6.3.3 Web import

This option from the <Tools> menu is used to import the existing updates through the internet to the local database accessed by the system.

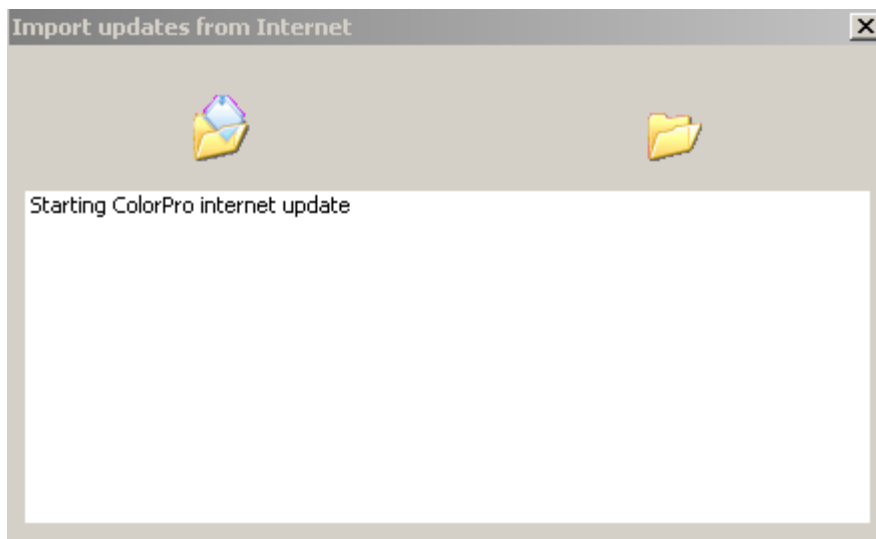


Figure: file import window

In case the files for updated are not found, a message will be displayed to the user, as illustrated below:

Figure: import function warning

In case there are update files, the files will be saved in a folder in the hard drive and after the download is finished, the import process of the files downloaded will start.

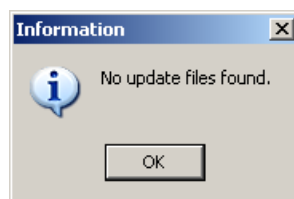


Figura: aviso da função de importação

Caso exista arquivos de atualização, os arquivos serão salvos em uma pasta do disco rígido e após concluir o download será iniciado o processo de importação dos arquivos baixados.

Access permission

The access to this function is controlled by the user's profile logged in to the system, allowing only users with management profiles.

6.4 Prices

Function to export and import values regarding the bases registered.

6.4.1 Export

This option is used to export values arising from the bases.

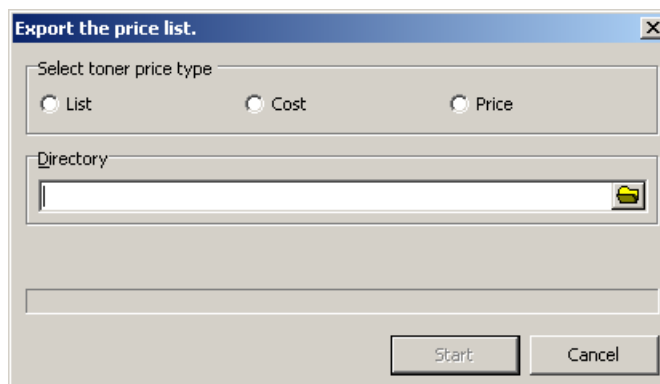


Figure: price list export

There are three export options:

Table

The values arising from bases calculating all taxes registered will be exported

Cost

The values arising from bases calculating only ICMS as tax will be exported

Table

sale values arising from bases will be exported

Procedure

Select the type of export. Inform the directory where the export files will be saved and click OK, three export files will be generated ("COMPL", "PACKG" e "PRICE") in the informed location through the directory option.

6.4.2 Import

This option is used to import values arising from a base. In case the documents to be imported are not found, a message will be displayed, as illustrated below:

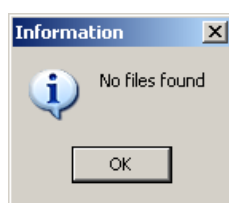


Figure: import function warning

Note: the files to be imported should be in the same folder where the setup of the program was located, normally the folder is: "C:\Program Files\ColorPro".

6.4.3 Formulas

Functions to import formulas from MMSystem and Mixt2000 programs.

6.4.3.1 Import from the MMSystem

This option from the <Tools> menu is used to import formulas arising from another database of the MMSystem program to the local database accessed by the system. When selected, this option will be displayed on the screen to inform the directory in which the database is:

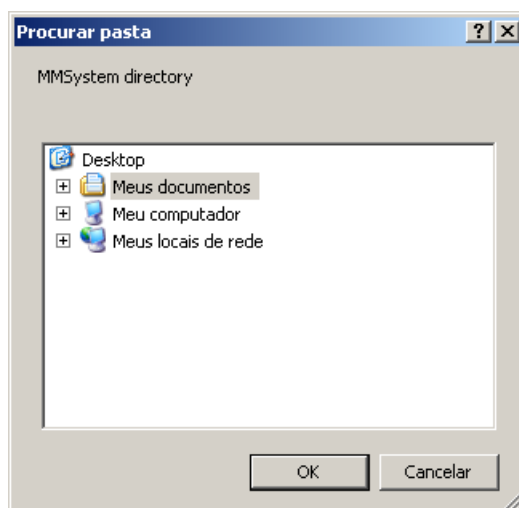


Figure: directory selection window

After informing the directory, click <Ok> to proceed with importing.

Access permission

The access to this function is controlled by the user's profile logged in to the system, allowing only users with management profiles.

6.4.3.2 Import from Mixt2000

This option from the <Tools> menu is used to import formulas arising from another database of the Mixt2000 program to the local database accessed by the system. When selected, this option will be displayed on the screen to inform the directory in which the database is:



Figure: directory selection window

After informing the directory, click <Ok> to proceed with importing.

Access permission

The access to this function is controlled by the user's profile logged in to the system, allowing only users with management profiles.

Part

VII

7 System

This option from the main menu contains the options to change the password, the access to the package registration, the percentage registration and the system settings screen.

7.1 Change password

This function is used to change the current user's password. When selected, the following will be displayed:

A screenshot of a 'Password change' dialog box. The dialog has a title bar with the text 'Password change' and a close button (X). It contains three text input fields: 'Current password', 'New password', and 'Confirmation'. The 'New password' field is grouped with a 'Password' label. At the bottom, there are two buttons: 'OK' and 'Cancel'.

To change the password, follow the steps:

Enter CURRENT PASSWORD in the <Current password> field;

Enter NEW PASSWORD in the <New password> field;

Enter NEW PASSWORD in the <Confirmation> field.

Press <Ok> so the change can be saved. From now on, all operations that need password will use the new password informed.

7.2 Packagings

This registration is used to control the packages used by the system during production. Here, the packages available to use are defined, as well as the prices chosen to market these packages. The following figure illustrates the package registration:

Select the packaging.

Packaging price shall be changed in the table below.

Packaging ☐ Not available
☐ Available
☒ Selected for use

Code	Color Description	Price	1/4	1/2	3/4	1/1	Content (l)
59	1 LITRO	1,00	✓	✓	✓	✓	1,000
61	3,75 LITROS	0,00		✓			3,750
24	4 LITROS	3,00	✓	✓	✓	✓	4,000
74	A - QUARTO MET. PARA 750,00 ML	0,00				✓	0,750
100	A - QUARTO: 640 ML	0,00				✓	0,640
75	B - MEIO GALÃO: 1500 ML	0,00				✓	1,500
101	B - MEIO GALÃO: 1280 ML	0,00				✓	1,280
102	C - TRÊS QUARTOS DE GALÃO - 19	0,00				✓	1,920
76	C - TRÊS QUARTOS DE GALÃO: 22	0,00				✓	2,250
103	D - GALÃO - 2560 ML	0,00				✓	2,560
77	D - GALÃO: 3000,00 ML	0,00				✓	3,000

OK Cancel

Figure: package registration window

To each package, the *code*, *description*, *price*, *capacity* and *presentation* are displayed. Colors are used to signal the availability (or not) of a specific presentation. As example, the package code 61 of the figure above. The black bottom to the 1/4 and 3/4 forms indicates they have *not been cleared by Akzo* for marketing. The other (1/2) are cleared to use. To the cleared ones it is possible to selected the ones that will be available to use in the production, in the given example, only the 1/1 form. The following figure highlights the symbology adopted:

Code	Color Description	Price	1/4	1/2	3/4	1/1	Content (l)
61	3,75 LITROS	0,00		✓		✓	3,750
24	4 LITROS	3,00	✓	✓	✓	✓	4,000
74	A - QUARTO MET. PARA 750,00 ML	0,00				✓	0,750

Figure: package selection

To make a package presentation available (1/4, 1/2, 3/4 or 1/1) click on the presentation desired. *Note: all (and only) presentations cleared by Akzo can be marked.*

To change the price of a given package, select the same one from the package list and position the cursor in the field corresponding to the package price.

To save the changes made, click <OK>.

Note:

When trying to save the changes to the package registration, the system performs a check in all lines to detect if at least one use package was not defined to a line, otherwise, the production of a formula with this line cannot be performed.

Access permission

The access to this function is controlled by the user's profile logged in to the system, allowing only users with management profiles.

7.3 Pricing Tools

This function is used to define the profit margin to be used in marketing, define tax values to be charged, as well as customer profiles. The following figure illustrates the percentage window:

Color Description	(+/-)	Value	Apply to
DESCONTO	-	0,00%	Toners and thinn
FINANCIAMENTO	+	0,00%	Toners and thinn
FRETE	+	0,00%	Toners and thinn
ICMS	+	0%	Toners and thinn
IPI	+	0,00%	Toners
SUBSTITUIÇÃO TRIBUTÁRIA	+	0,00%	Toners
IPI	+	0,00%	Thinner
SUBSTITUIÇÃO TRIBUTÁRIA	+	0,00%	Thinner

Figure: pricing tools window

Profit margin

Inform in this field the profit margin percentage to be used by the system.

Taxes apply to list price

This setting indicates to the system as the cost price of the bases and thinner to be calculated.

If this option is checked, then the composition of production cost is given by the table price plus taxes configured here. If this option is unchecked the cost price is equal to the table price.

Taxes

You can define the values to each existing tax to each product line, or define that the system considers all taxes the same to all existing product lines. If that is the case, mark the corresponding field. If you wish to define different values to each line, you must follow these steps:

1. Select the line;
2. Inform the value of each one of the taxes listed.

Profiles

Here, you define the coefficients of each one of the customer profiles *per product line*. In order to include a customer profile, follow the steps:

1. Inform the profile description;
2. Inform the factor value to be used.

Profile example

Let's say we want to give a 15% discount to the *VIP category*. The VIP description would be informed to this profile and the coefficient 0.85 would be also. *Explanation: the coefficient field indicates which*

factor the value of the formula must be multiplied by to reach the final price with discount, according to the rule:

$$\text{Factor} = (1 - \text{discount}/100)$$

For the example given, we have the Factor = $(1 - 15/100) = 0.85$

In the following figure, we have an example on how to fill out customer profiles:

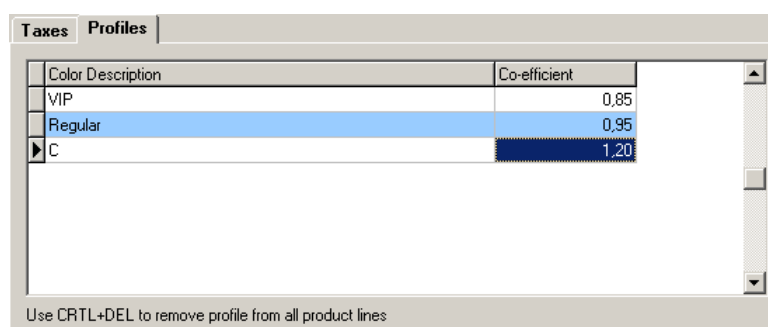


Figure: example on customer profiles

Explaining the figure above, we have:

- To the *VIP* profile, a 15% discount (factor = 0.85);
- To the *Regular* profile a 5% discount (factor = 0.95);
- To the *C* profile a 20% addition (factor = 1.20);

Access permission

The access to this function is controlled by the user's profile logged in to the system, allowing only users with management profiles.

7.4 Pricing Tools Ancillaries

This function is used to set the profit margin to be used in marketing, define the values of the taxes to be collected as well as the customer profiles. The following figure illustrates through an example the complements percentages window:

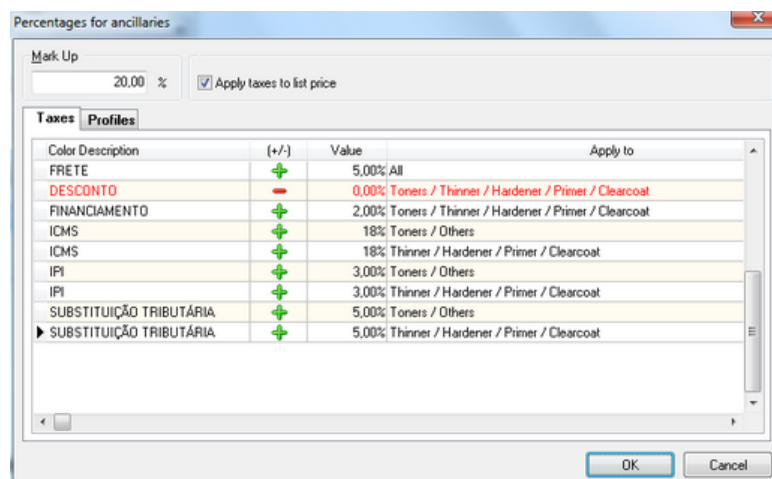


Figure: complements percentages window

Profit margin

Report in this field the profit margin percentage to be used by the system.

Apply taxes to the list price

This configuration indicate for the system how should be calculated the cost price of complementary.

If this option is checked then the cost price composition will be given by the list price and taxes set in this document. If this option is unchecked, the cost price will be equal to the list price.

Taxes

You can set the values of each one of the existing taxes for each of the indicated types.

Profiles

Here you can define the coefficients of each customer profiles for all complements. The customer profiles listed are those created in the configuration of percentages for bases, here are only defined the coefficients for complements.

Profile example

Let us say we want to give 15% discount to the *VIP category*. For this profile will be selected the *VIP description* and the coefficient *0.85*. Explaining: the coefficient field indicates by which factor should be multiplied the value of the formula to reach at the final discounted price, according to the rule:

$$\text{Factor} = (1 - \text{discount}/100)$$

For the given example we have $\text{Factor} = (1 - 15/100) = 0.85$

In the following figure, there is an example of filling customer profiles:

Color Description	Co-efficient
VIP	0.85
Regular	0.95
C	1.20

Use CTRL+DEL to remove profile from all product lines

Figure: example of costumer profile

Explaining the figure above, we have:

- to the *VIP profile* was designated a *discount* of 15% (factor = 0.85);
- to the *Regular profile* was designated a *discount* of 5% (factor = 0.95);
- to the *C profile* was designated an *addition* of 20% (factor = 1.20);

Access permission

The access to this function is controlled by the user's profile logged in the system, being allowed only to users with *management profile*.

7.5 Configuration

This function allows configuring the system working parameters, the interface with the ser, connected equipment, searches and the label to be used.

In order to access the settings function, select the <Settings> item from the <System> options in the main menu. A screen as the one pictured below will be displayed:

The settings screen has five buttons located on the left: *Preferences*, *Interface*, *Balance*, *Search* and *Label*. As default, the *Preferences* tab is displayed. As follows, we explain each group of configurable parameters

[Preferences]

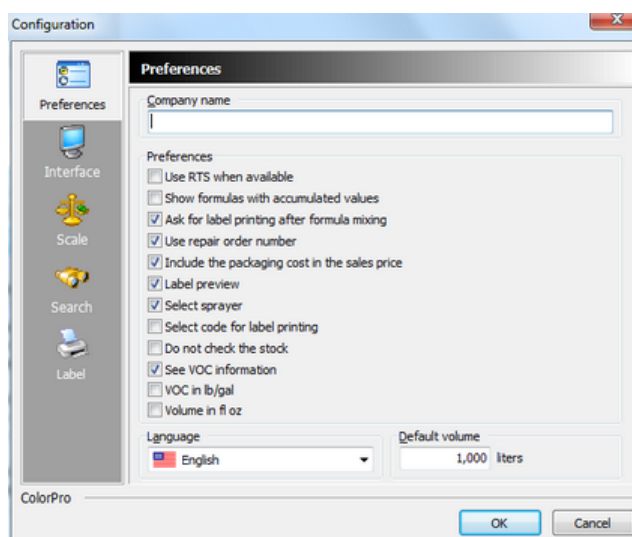


Figure: settings screen

Company name

Inform the identification of the company in which the system is used. This identification will be used on the header of reports printed by the system

Preferences

Use formulas ready to use whenever possible

If marked, the information about the color will display the composition of the *ready to use formula*, i.e., with solvent added to it.

Show formulas with accumulated values

If marked, the *information window about the color* will show the base amount (formula component) of an accumulated form. This field also controls the display form of component amounts in the weighing window. .

Ask if wants to print the label at the end of production

If marked, by the end of a formula production, a message will be displayed to print the label.

Use the number of the service order in production

If marked, <Produced Colors> and <Bases Consumption> option to inform the number of the service order will be enabled in production and report filters.

Include package cost in sale price

If marked, the package price will be charged when a production is performed.

Show labels on the screen before printing

If marked, a report preview will be displayed before printing.

Select a painter in production

If marked, the <Produced Colors> and <Bases Consumption> option will be enabled in production and report filters in order to inform the painter.

Select code while printing labels

If marked, the <Akzo Code> option will be enabled while printing labels so it will be possible to select another code to print on the label.

Obs: in case this option is unmarked, the code used for printing labels will always be considered the main code.

No check the stock/inventory

If checked, will not present information from a lack of inventory available for production.

See VOC information

If selected it, will present information on VOC emission in the displays of service orders and reports.

VOC in lb/gal

If marked, it will display information of VOC emission in pounds per gallon, if not checked, it would present information of VOC emission in grams per liter.

Volume in fl oz.

If checked, it will present volume information in fluid ounces (fl oz.), if not checked, it will present volume information in liters (L).

Language

Select a language to be used in the label fields and system messages: *English, Spanish or Portuguese*

Default value

Default volume value to formula reference.

[Interface]

Here, you define the appearance of the system interface. The selected option will be automatically updated after you confirm the changes made in the settings window.

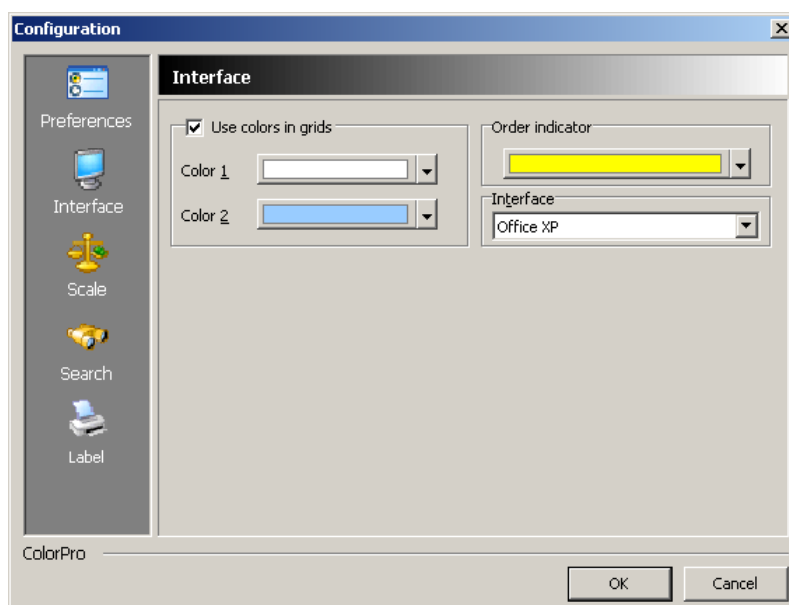


Figure: Interface settings screen

Use colors on grids

Mark this field if you wish to use different colors on grid lines in the windows of the system. If marked, you should inform two colors to be used (*color 1 color 2*).



Figure: color used on grids

Ordination indicator

Here, inform the color used in the ordination indicator. The ordination indicator is used to highlight through color, which is the column being used as ordinance criteria of the entries listed on the screen.

[Scale]

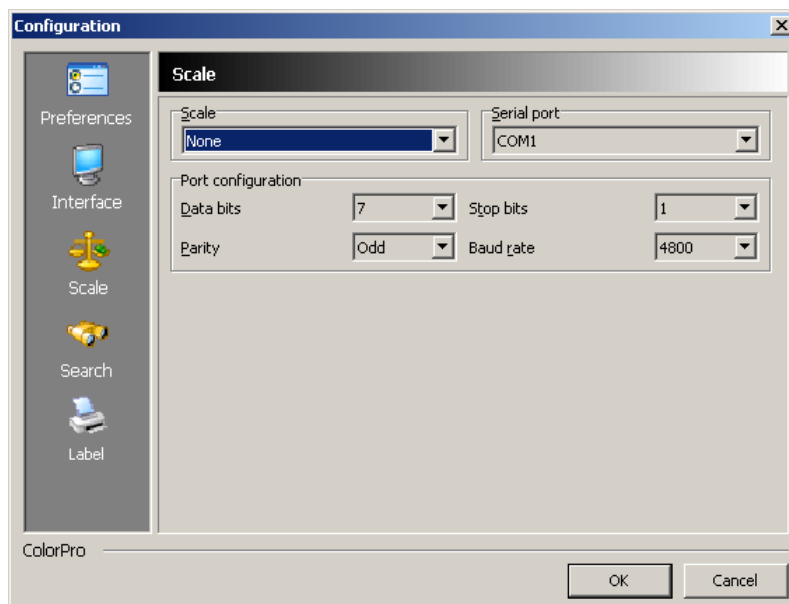


Figure: scale settings

Scale

In case a balance is used, select the balance model connected to the computer. Otherwise, the option "None" should be selected.

Note: the following fields will only be available for configuration if a balance model has been selected.

Serial port

Select the serial port used.

Port settings

Inform the settings parameters for the serial port used: *data bits*, *stop bits*, *parity* and *bits per second (baud rate)*. These parameters should be in compliance with the balance model used and they are usually referred to in the equipment manual.

[Search]

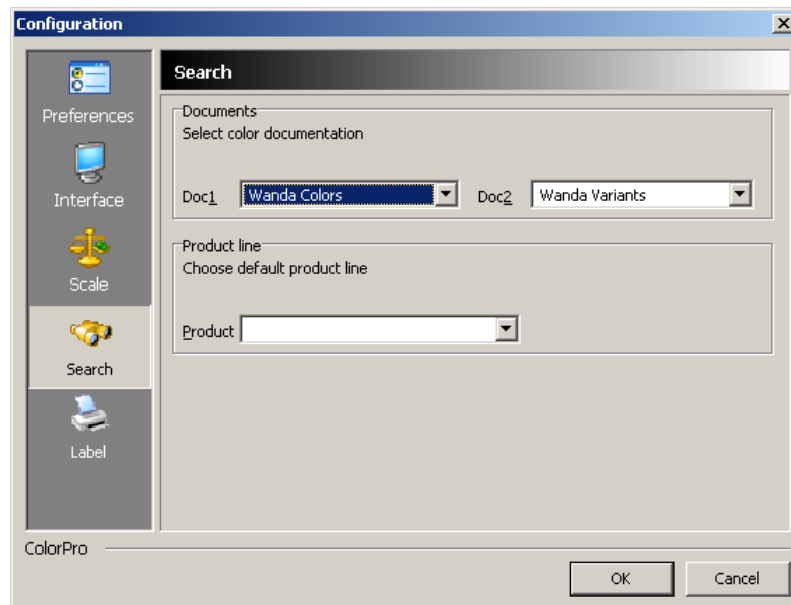


Figure: Search settings

Documents

The window displaying the results of a color search can display up to 2 documents (codes) per formula found. Inform the fields *1* and *doc 2*, the types of documents that should be displayed. The following figure illustrates the use of these fields:

G..	Color Description	Variant	Akzo Code	Type	Start Year	End Year	OEM	Doc1	Doc2
●	Amarelo Imola		FI92010	M.2c	2000	2002	Fiat	27	84
●	Amarelo Indianapolis		FI10007	S	2005	2007	Fiat	295	
●	Amarelo Maremma		FI10005	S	1977	1978	Fiat		
●	Amarelo Ravenna		FI10002	S	1981	1982	Fiat		

Figure: color search

Product line

Inform the product line (default) to be used in the color reference. In case the product is found in more than one line, the line set up herein will be displayed as default.

[Label]

Here, you will set up the parameters of the label to be printed.

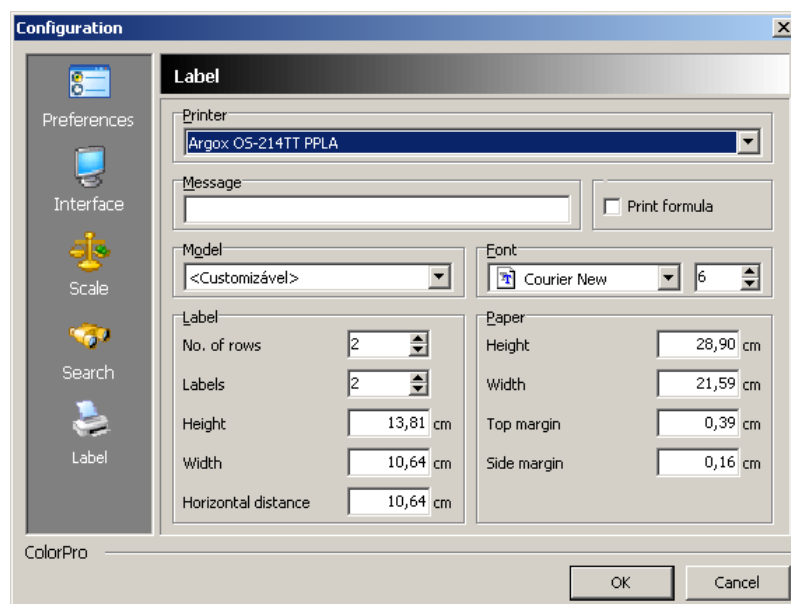


Figure: Label settings

Printer

Select the printer to be used while printing the labels.

Message

Inform the message text to be added to the printed label text.

Model

To this field there are two ways to fill out: check if the model being used appears in the *manufacturers/models* list. In case you do not find the model in the list, select the option *<Customizable>*. When selected, the fields will be displayed so the dimensions of the label used can be entered, according to the figure below:

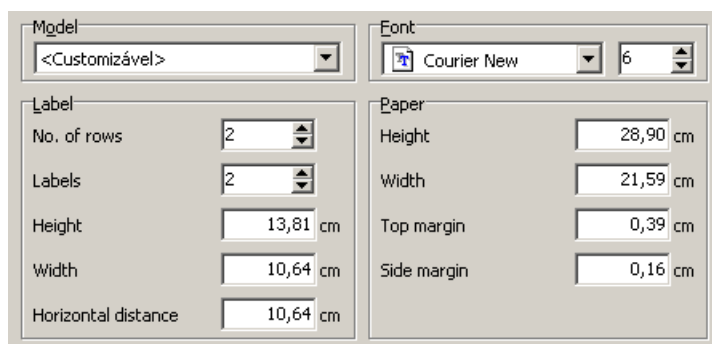


Figure: customized model fields

Font

Select a font and a size to be used in label text print.

[Invoice]

Now, it's time to configure parameters regarding invoices. In this regard, click in the key <Invoice>. The following figure illustrates fields that are shown:

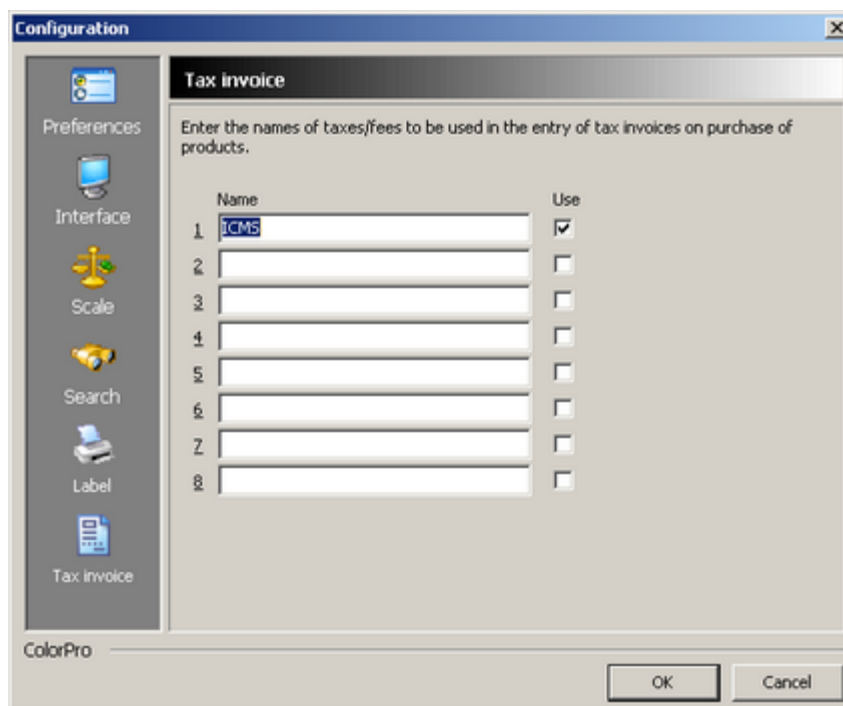


Figure: invoice parameters

In the previous figure, it can be seen the window of configuration of fees that are applied in the system invoice entry. Hereinafter, it will be explained each information field of this window:

Name

Type the tax name to be included in the system.

Use

Select if it is desired this tax will be applied in product purchase invoice entries.

To save performed configurations, click in the key <Ok>.

7.6 Maintenance

This function is used to inform product lines that must be used by Color Pro. The following figure illustrated, through an example, the permission window:

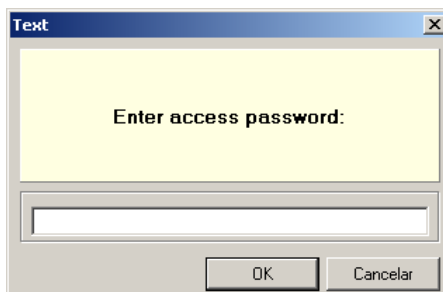
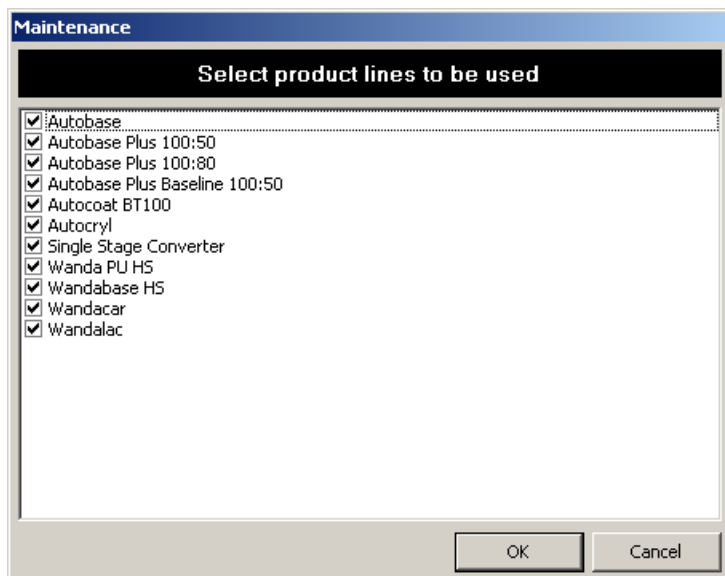


Figure: password window

After informing your password, the following window will be displayed:

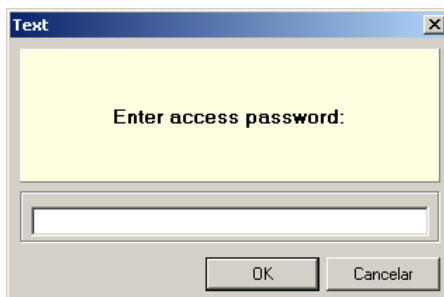
**Figure: line selection window**

Select the lines you wish to use and click the <Ok> to confirm.

7.7 Blocked formulas

Esta função é utilizada para informar fórmulas que devem ser bloqueadas para a produção devido a alguma restrição. A figura a seguir ilustra, através de um exemplo a janela permissão:

This function is used to inform formulas that must be blocked for production due to some restriction. The following figure illustrates, through an example, the permission window:

**Figure: password window**

After informing your password, the following window will be displayed:

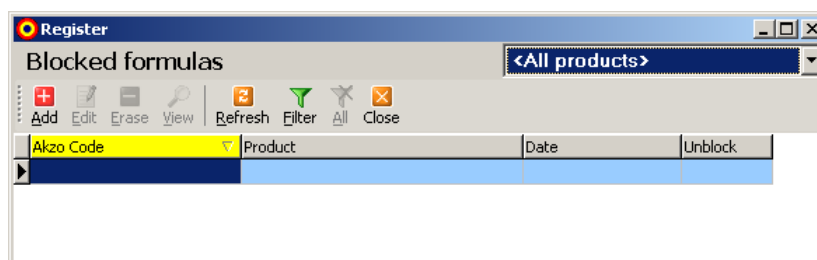


Figure: Blocked Formulas window

In order to include a block choose the option <Add> and the following window with these fields will be displayed:

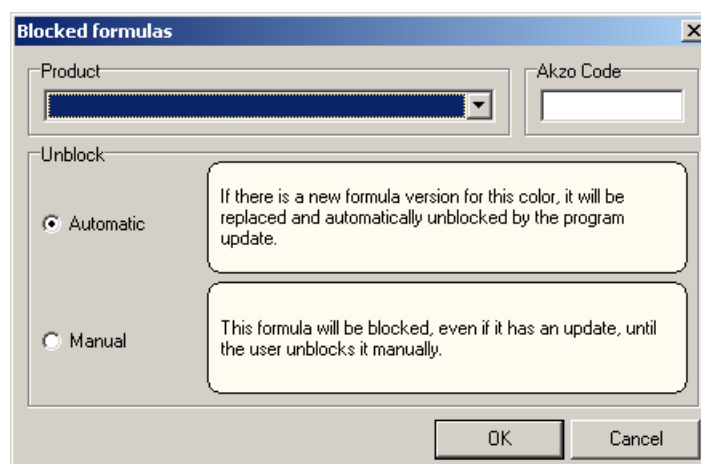


Figure: Block formulas addition window

Product: inform the product to be blocked

Akzo Code: inform the product formula code to be blocked

Unblock: inform if unblocking is automatic or manual

Auto: in case this option is selected, the formula will be unblocked automatically through updated sent by Akzo Nobel, when there is no restriction.

Manual: in case this option is selected, the formula will only be unblocked with the intervention of a user of the system, accessing the formula block screen, selecting the formula in question and clicking the option <Delete>.

Note: Even when a formula is blocked in all product lines by performing a filter in the formula production window, the same formula will appear, but in that case, it will be blocked and its production will not be allowed and the following message will be displayed:

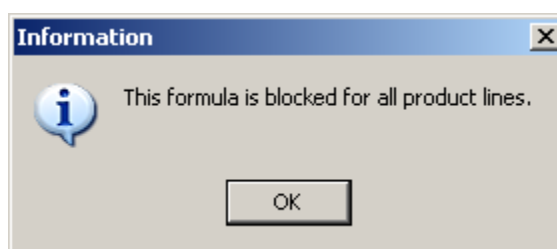


Figure: warning message window

7.8 Register

This function is intended to record the data from the user registry Colorpro.

This user registry will be requested automatically whenever you start the Colorpro until that the all information are filled by the user.

The registry information are necessary (mandatory) to update the database colors by internet.

The figure below illustrates the user registration screen:

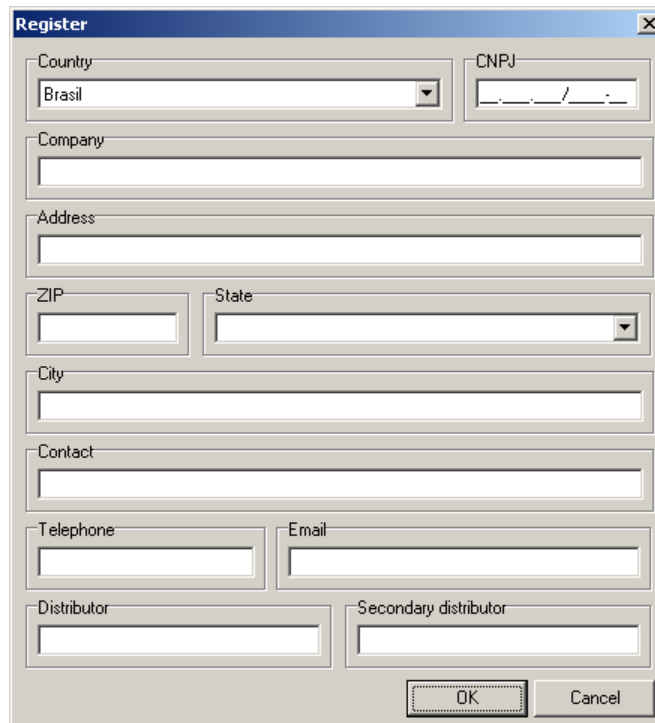


Figure: user registration screen

Country

Select the name of your country. This field is mandatory.

CNPJ (Only Brazil)

For companies in Brazil will need to provide your CNPJ number. This field is mandatory.

Company

Enter the company name. This field is mandatory.

Address

Enter the full address of the company. This field is mandatory.

ZIP

Enter the zip code relative the address. This field is mandatory.

State/Province

Enter or select the state / province according to the selection of the country, the information will be requested or presented the list of possible values for selection. This field is mandatory.

City

Enter the city name. This field is mandatory.

Contact

Enter the contact name at the company. This field is mandatory.

Telephone

Enter the telephone to contact. This field is mandatory.

Email

Enter the email to contact. This field is mandatory.

Distributor

Enter the name of your distributor (if there is).

Secondary Distributor

Enter the name of the secondary distributor (if there is).

Part



8 Help

This option in the main menu contains the screen about the system.

8.1 About

Information about the system version, developing company and supplier.



Figure: About

Part

IX

9 Attachment

9.1 Sartorius scales

In case a *Sartorius AG* balance model is used, a serial cable type null modem must be used. Therefore, the balance will work on SBI (Simple Balance Interface) mode, necessary so the communication with the system is possible.

The parameter settings in the serial port settings must also be noted (*Set up Parameters*):

- Baud rate (bits per second):
516 = 4800 baud
- Parity bit (Parity):
523 = Odd parity (parity odd)
- Stop bits (stop bits):
531 = 1 stop bit
- Print Function (print mode):
613 = Continuous mode (*Auto print regardless of stability **)

(*) the last parameter, which regards the balance data transmission mode to the computer is *critical*, i.e., only this option can be used, otherwise, the system will not be able to capture the balance data.

Note:

This attachment aims to only warn about particularities of the Sartorius balances that can affect your connection to the system. Any additional information, or technical detail, can be referred to the manual made available by the manufacturer.