Wittenborg Configurator for 5100

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Version 2.12 © Wittenborg

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Software tool for WindowsTM 95, 98, 2000 and NT

by Bent Erik Truelsegaard

The software tool was made to give the owner of Wittenborg 5100 machines an easy way of programming the machines. Make Your own display texts, scroll texts, drink settings. Download settings from one machine and upload it to another. Print out all settings. You will find that coffee machines are not so difficult to deal with, when You are using this software tool. Enjoy the work!

Table of Contents

Foreword

This manual Version 2.12 is covering Configurator version 2.12 and Eprom versions 00602270 and older, - digit 4 and 5 represent year of issue, - 01 = 2001, 02 = 2002.

1 How to use help.

1.1 Use help.

Help functions are standard Windows help with content, index and find.

- You can start the help application by clicking **Help** in left upper corner of the main form and select **Wittenborg help**!
- You can point on an item and clicking the right mouse button or pressing F1, and a window with a help text will popup.
- On some of the forms, You can drag the question mark from the right upper corner of the form and release the mouse button on the item, You want to see the help text on.

2   Handling old and new 5100 machines with the Configurator.

2.1   What's the different between EVA-DTS 1 and 2.

- From 1995 and until end of 1999 only FB5100 machines were available. These machines were equipped with two different VMC's, - 4761076.00 or 471076.01, and several different Eprom versions. In Wittenborg terms they all used **Wittenborg EVA-DTS version 1**.

- From beginning of 2000 the VMC was changed to 471076.02 and **Wittenborg EVA-DTS version 2** was implemented, because of the need of new functionality.

The various changes in VMC software (Eprom version) in relation to the EVA-DTS versions are handled by the Configurator during upload of data to the VMC, therefore it is **very important** that You use the Configurator when uploading data. Using another terminal program for upload, can cause errors during upload.
Files saved with the Configurator, will be saved with either file extention **vv1(EVA-DTS version 1) or vv2(EVA-DTS version 2).**

Important! The appearance of the Configurator will change depending on the file loaded, - EVA-DTS version 1 or EVA-DTS version 2. If an EVA-DTS version 1 file is loaded settings for eg. rinse function, virtually empty sensors, ES, IN are **not** available.

3   What's inside a EVA-DTS file.

3.1   The EVA-DTS file and how to edit.

A EVA-DTS file consists of several records.

An ingredient record consists of:

<u>A name</u>   **MC5***0***36@**0*15*FB/ES ingr
<u>An index</u>   MC5***0***36@0*15*FB/ES ingr
<u>An ingredient</u>   MC5*0*36@**0***15*FB/ES ingr
<u>An ingredient relation</u>   MC5*0*36@0***15***FB/ES ingr
<u>An ingredient name</u>   MC5*0*36@0*15***FB/ES ingr** (max. 10 characters)

What can be interesting to change is ingredient relation, which means amount of an ingredient per second. 15 in line 1 means 1.5 gr/sec., and 20 in line 2 means 20ml/sec. For the whippers the relation defines the minimum timestep, -see line 19, this defines the timestep to 0.1sec. It is importent, that the ingredient relations are as close as possible to the real world. The ingredient relations are used in the machine, except for water in Espresso machines as a flowmeter is used for water dosing, and in the Configurator for "Quantity simulation", so with wrong values of ingredient relations, there is a risk, that You will make configuration files with bad timing.
If You want another name, then just change it, - like in line 9, but maximum 10 characters.
You can use eg. Notepad or any other text editor to edit a EVA-DTS file. If You use Word or WordPerfect, save the file as text file.

<u>This is a part from the default file</u>

*MC5*0*36@0***15****FB/ES ingr*
MC5*1*36@1*10*NotUsed1
*MC5*2*36@2***20****FB/ESwater*
MC5*3*36@3*10*NotUsed2
MC5*4*36@4*10*FB whip
MC5*5*36@5*10*Not used3
MC5*6*36@6*50*IN pos1
MC5*7*36@7*50*IN pos2
*MC5*8*36@8*50***Chocolate***
MC5*9*36@9*50*IN pos4
MC5*10*36@10*50*IN pos5
MC5*11*36@11*10*Not used4
MC5*12*36@12*20*INWater1
MC5*13*36@13*0*Not used
MC5*14*36@14*20*INWater3
MC5*15*36@15*20*INWater4
MC5*16*36@16*20*INWater5
MC5*17*36@17*25*HotWater
*MC5*18*36@***18*****10***INWhip1
MC5*19*36@19*10*BeepDelay
MC5*20*36@20*10*INWhip3
MC5*21*36@21*10*INWhip4
MC5*22*36@22*10*INWhip5
MC5*23*36@23*10*NotUsed5
MC5*24*36@24*20*ColdIN1
MC5*25*36@25*20*ColdIN2
MC5*26*36@26*20*ColdIN3
MC5*27*36@27*20*ColdIN4
MC5*28*36@28*30*ColdWater
MC5*29*36@29*10*NotUsed10
MC5*30*36@30*10*NotUsed11

MC5*LAST*36@31*10*NotUsed12

If You need more specific information on EVA-DTS issues, please refer to "5100 EVA-DTS manual" and "5100 EVA-DTS specification". They are both a part of this installation.

3.2   ES5100 configuration.

The name eg. EVA-DTS 12 is related to *MC5*12*36@**12***20*INWater1* in the EVA-DTS file and so on. You can see the relation between an ingredient in the EVA-DTS file and the output of the VMC eg. Out 24V 1. The same designations are used on the main diagram of the machine.

ES 5100 - Output Configuration

Parallel output

3.3   FB5100 configuration.

The name eg. EVA-DTS 12 is related to *MC5*12*36@**12***20*INWater1* in the EVA-DTS file and so on. You can see the relation between an ingredient in the EVA-DTS file and the output of the VMC eg. Out 24V 1. The same designations are used on the main diagram of the machine.

FB 5100 - Output Configuration

3.4   IN5100 configuration.

The name eg. EVA-DTS 12 is related to *MC5*12*36@**12***20*INWater1* in the EVA-DTS file and so on. You can see the relation between an ingredient in the EVA-DTS file and the output of the VMC eg. Out 24V 1. The same designations are used on the main diagram of the machine.
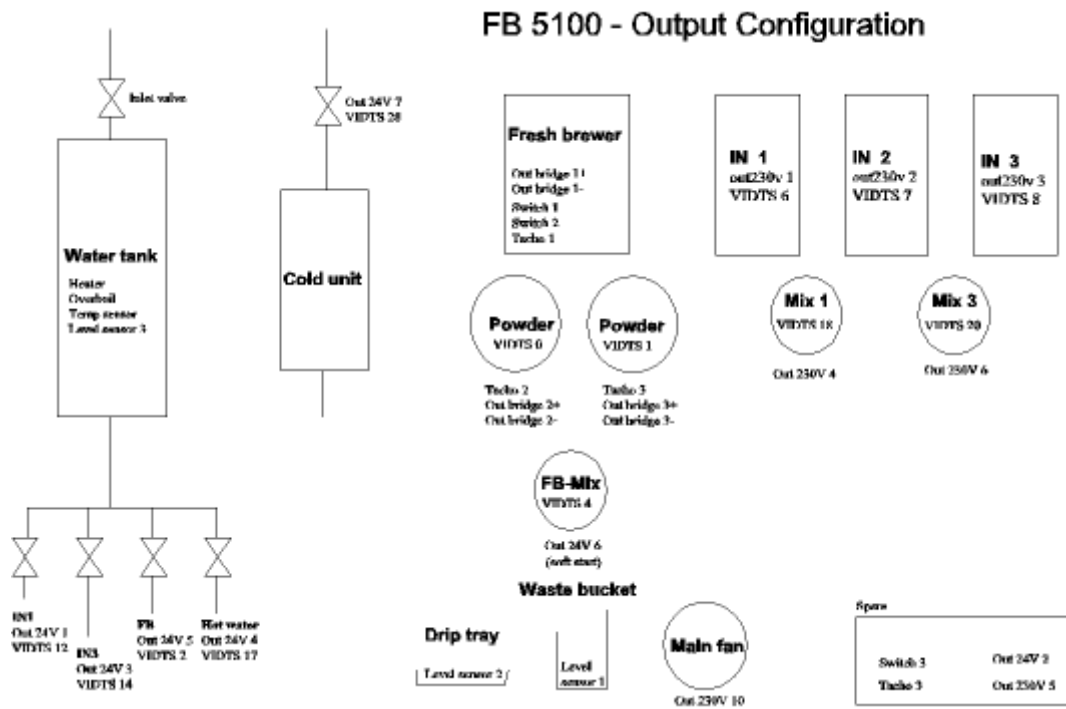
IN 5100 - Output Configuration

3.5   CFT2000 configuration.

The name eg. EVA-DTS 12 is related to *MC5*12*36@**12***20*INWater1* in the EVA-DTS file and so on. You can see the relation between an ingredient in the EVA-DTS file and the output of the VMC eg. Out 24V 1. The same designations are used on the main diagram of the machine.
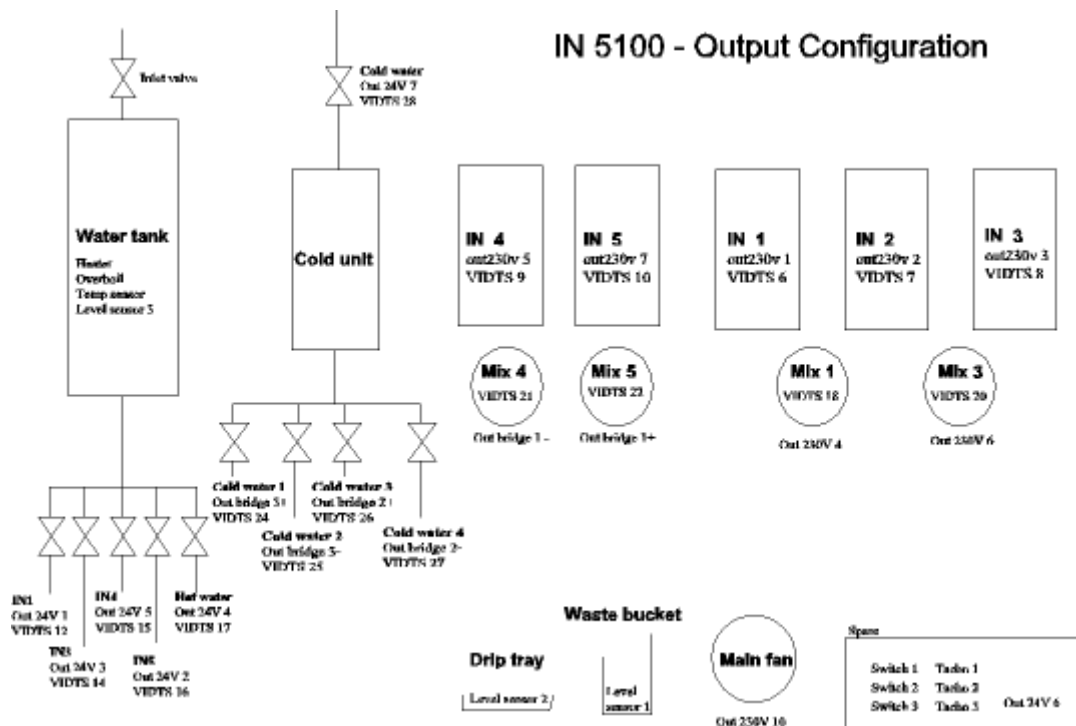
LQ 5100 - Output Configuration

Inlet valve

Cold water
Out 24V 7
VIDTS 23

Liquid unit

IN 1
VIDTS 6
Out 230V 1

IN 2
VIDTS 7
Out 230V 2

IN 3
VIDTS 8
Out 230V 3

Water tank
Heater
Overboil
Temp sensor
Level sensor 5

Cold unit

Mix 1
VIDTS 18

Mix 3
VIDTS 20

Out 230V 4

Out 230V 6

Cold water 1
Out bridge 5+
VIDTS 24

Cold water 3
Out bridge 2+
VIDTS 26

Cold water 2
Out bridge 3–
VIDTS 25

Cold water 4
Out bridge 2–
VIDTS 27

Waste bucket

Drip tray

Level sensor 2

Level
sensor 1

Main fan

Out 230V 16

IN1
Out 24V 1
VIDTS 12

LQ
Out 24V 5
VIDTS 2

IN3
Out 24V 3
VIDTS 16

Hot water
Out 24V 4
VIDTS 17

Spare	
Out bridge 1 +	Switch 1
Out bridge 1–	Switch 2
Out 230V 7	Switch 3
Out 230V 5	
Out 24V 6	Tacho 1
(drill start)	Tacho 2
Out 24V 2	Tacho 3

4   Open and save files.

4.1   Open/save file.

When an EVA-DTS file is loaded into the Configurator, You can select which items to be loaded in the check box. Every time a file is loaded into the Configurator, all data are cleared and a range check is perfomed. If the file contains excessive values, the line number(s) with the excessive value(s) of the file will be shown in a small window.

Write the ID You want to be shown in the menu system of the machine in the field "ID". Normally the file name.

"Clear all data" will reset the Configurator, - remove all settings made, and load the default configuration, - EVA-DTS version 2. If data are changed and not stored, You will get a warning and the possibility of cancelling.

The field "EVA-DTS version" shows the Wittenborg EVA-DTS version of the loaded file. The Configurator recognizes the version by the file extention, - vv1 and vv2. If a file with an unknown file extention is loaded, the Configurator will prompt You to tell, whether the file is an EVA-DTS version 1 or 2. Default is version 2.
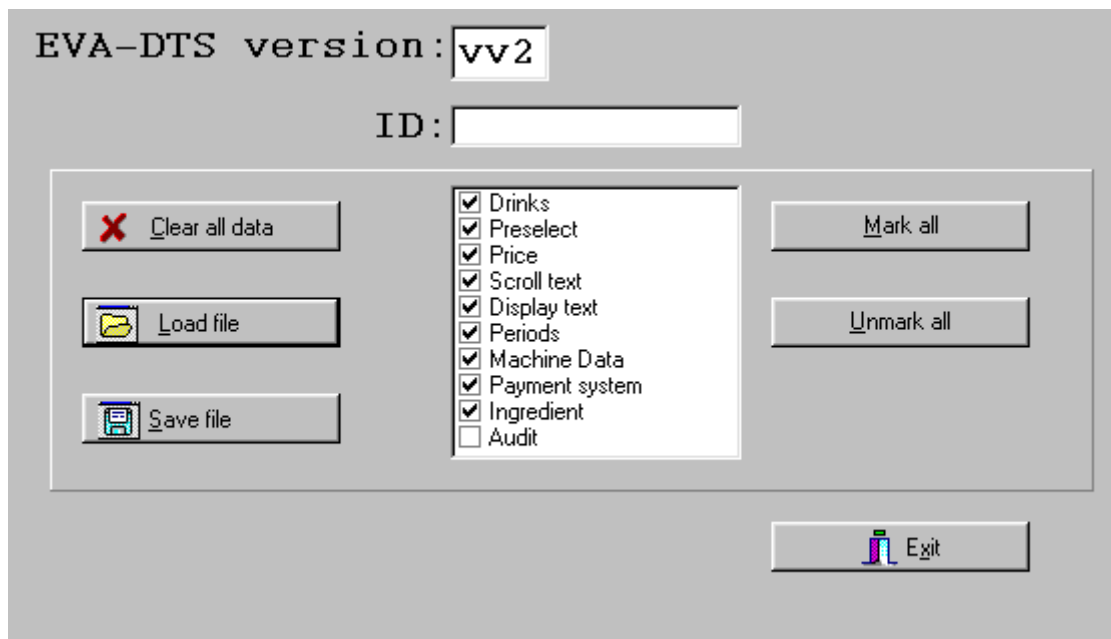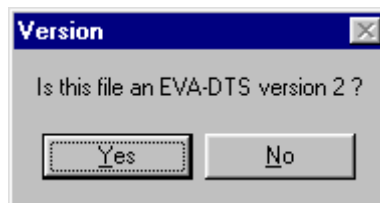
Exit and close the Configurator. If data are changed and not stored, You will get a warning.

4.2   Select/deselect all.

Use "Mark all" or "Unmark all" to either select or deselect all item groups or select the item groups You want to be loaded from a file or saved into a file. You can also individually choose the wanted items.

What is inside the different groups of the check box?

- **Drinks:** Drink settings, drink names, drink audit groups.

- **Preselect:** Settings of preselection button.

- **Price:** Prices for each drink.

- **Roll text:** Normal roll text and Happy Hour roll text.

- **Display text:** System - and error texts.

- **Periods:** Energy save - and Happy Hour periods.

- **Machine data:** Temperature settings, user limits in settings, coffee syrup start/stop delay, ES air rinse delay, clock, cup sensor, water leakage time out, rinse function, virtual empty sensors, display settings, multibrew.

- **Payment system:** Max. credit, max. change, payment type, price mode, key discount, Happy Hour discount, multivend, obligation to buy, freevend, discount audit, audit unit, overpay for BDV, MDB, ZKA mode and show texts for MDB.

- **Ingredient:** All ingredients, - used and not used.

- **Audit:** Audit information eg. You can load a dwl (download) file containing audit data, see topic "Start download.". When "Audit" has been checked, the tabsheet "Audit" will visible. Audit information WILL NOT BE saved, when You save the content of the Configurator.

5 Drink settings.

5.1 The preselection buttons.

5.1.1 Set behaviour of preselection LED's.

The behaviour/function of the preselection LED can be set.

- **"Off"** the button has no function.

- **"Off, Middle"** the button toggles the middle LED. The LED is off in standby.

- **"Left, Right"** the button shifts between the left and right LED. Left LED is ON in standby.

- **"Middle, Right, Left"** the button shifts between middle, right and left LED and back. The middle LED is ON in standby.

- **"Off, Middle, Right, Left"** the button shifts between middle, right and left LED and back. The middle LED is OFF in standby.

5.1.2 Set preselection function.

The function of the LED is determined by selecting the scaling parameter of small, medium or large in the corresponding box.

5.1.3 Set preselection index.

A preselection index (1-12) can be assigned to each position of the LED. This is used to assign a preselection button to the "Large%/Small%" field of a drink line.
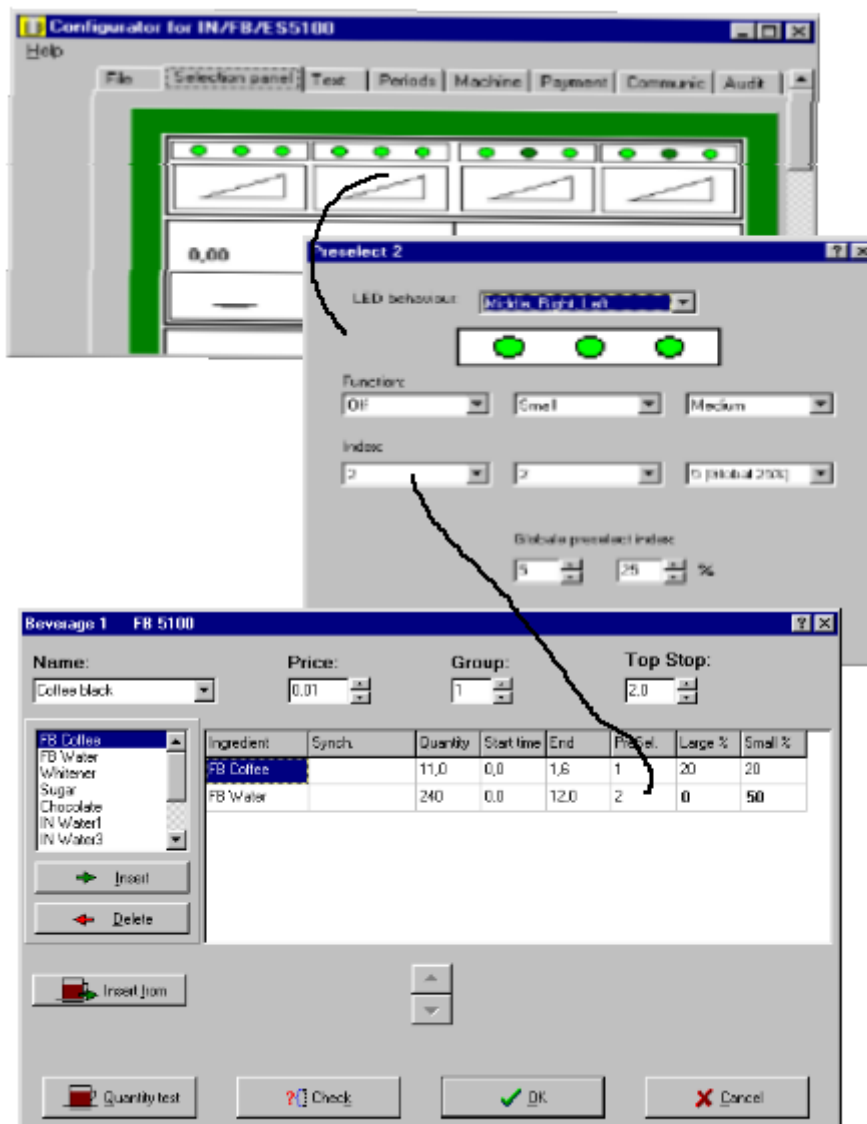
5.1.4 Set global scaling percentage.

Choose the percentage You want the cup size button to use.This button will scale all ingredients of the drink (large or small, depending on the position of the LED of the preselection button).

5.1.5 Set global preselection index.

Choose the number You want as global preselection index, - normally 5, but can be any number from 1 to 12. The global preselection index is used to assign a preselection button used for cup size. The preselection index is not to be assigned individually the selection button, but is a global function, that work on all drinks.

5.2 Edit or make a drink setting.

5.2.1 Selection panel.

Click with the mouse on the button on the selection panel, that You want to edit!
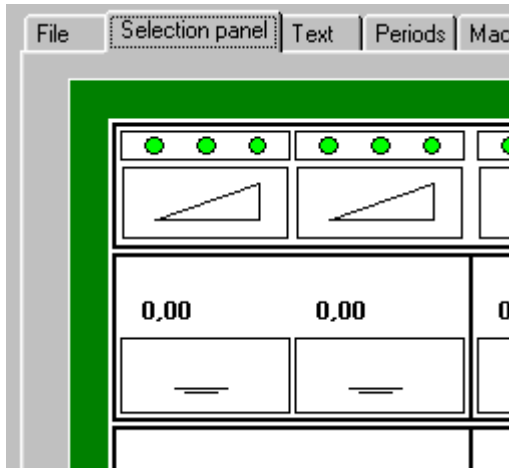
5.2.2   Drink setting panel

Figure "Drink setting"

5.2.3   Drink setting.

In this table "Drink setting" the parameters for each ingredient contained in the current drink can be adjusted. See figure "Drink setting". You can use drag 'n drop if You want to change the order of the drink lines.

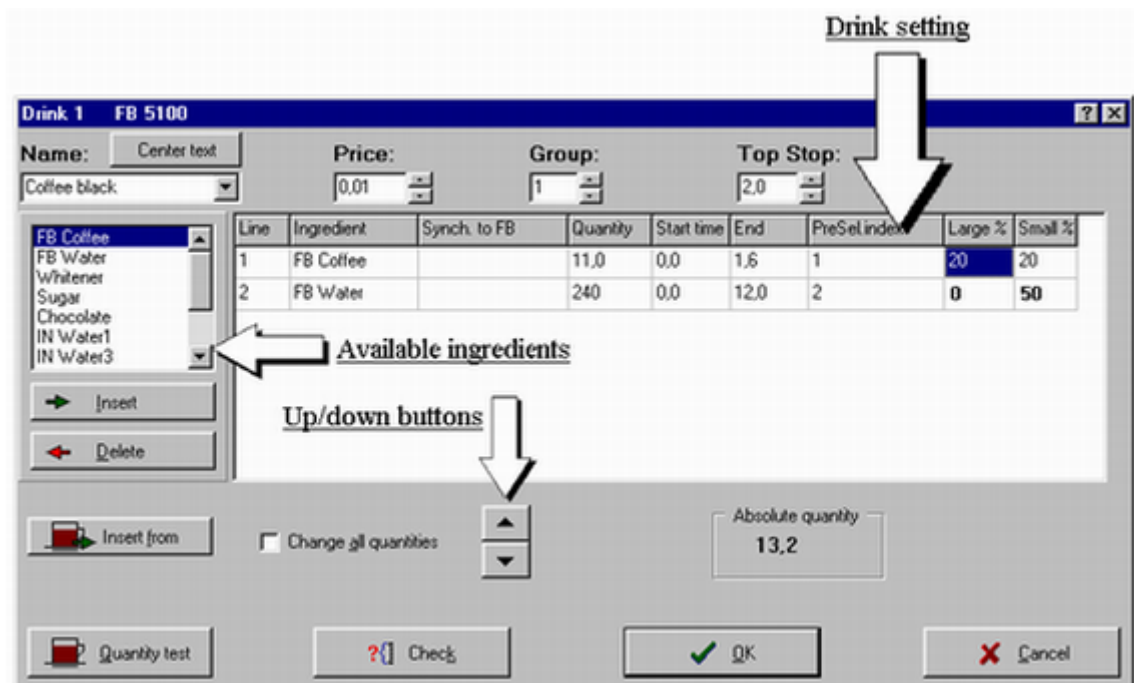Enter the wanted quantity direct in the field, by using the up/down buttons or "Change all quantities".

- In "Quantity" You can set the quantity for the ingredient. "Start time" is used to delay an ingredient eg. IN water in comparision to an IN ingredient.
- In "PreSel. index" You can set the index number, that is corresponding to the index number of the preselection button You want to be used with this ingredient.
- "Large %" and "Small %" are used to set the percentages, the preselection will use for this ingredient.
- "Synch."(FB syncronisation) is used in a FB drink to syncronise IN ingredients with the brewer. If

"Synch." is "Yes" the delievery of the IN ingredients will start, when the piston starts moving downwards, and if "Synch." is "No" the IN ingredients will be delievered before the FB.

- The field "Synch." is called "Cold water inj." in ES configurations. See figure "ES cold water injection". This field is used to set the temperature of the IN water in 4 (four) different levels. "Maximum" approx. 75°C, "Medium" approx. 80°C, "Minimum" approx. 85°C and "None" approx. 90°C.

Line	Ingredient	Cold water inj.	Quant
1	ESCoffee		7,0
2	ESWater		40
3	Whitener		2,0
4	Chocolate		7,0
5	IN Water1	Maximum	85
6	IN-Whip1		6,0

Figure "ES cold water injection"

It gives a good overview on the screen and in the menu system of the 5100, if the drink lines are grouped like this example of chocomilk: 1. chocolate, 2. whitener, 3. water, 4. whipper, 5. beep delay.

5.2.4   Drink name.

"Name". The name You add to this field, will be shown in the display as "Selected drink", please refer to "Display" on the "Machine " tabsheet.
There are 14 characters available for this text, - in older machines only 13. Click "Center text" to center the drink name in the display of the machine. The drop down list contains all the names of the drinks on the selection panel, and creating a new drink You can reuse one of the names by picking it from the list. Every drink and drink name You add to the panel will be represented in the drop down list.

5.2.5   Drink group.

"Group" is used as audit group. If You want eg. the different coffee drinks to be counted in the same audit counter, they must all have the same group number.
OBS! Group 22 activates undosed hot water and 23 activates undosed cold water in FB and IN. This is not applicable in ES.

5.2.6   Using the up/down buttons.

Use the up/down buttons to change the highlighted setting. If percentage is checked, the up/down buttons are used to change all drink settings per cent.

5.2.7   Available ingredients.

This list contains all available ingredients for the selected machine type. Insert a new ingredient into the current drink.

5.2.8   Insert ingredients in the drink.

"Insert". With this button the highlighted ingredients will be inserted in the drink.

5.2.9   Delete ingredients from the drink.

"Delete". With this button the highlighted ingredients will be removed from the drink.

5.2.10   Insert drink settings from another drink.

"Insert from". It is possible to insert a complete drink setting already made by clicking the "Insert from" button and pick the wanted drink from the list.

5.2.11 Scaling all ingredients with a percentage.

It is possible to scale all ingredients in a drink by clicking the "Change all quantities" and use the up/down buttons or write the value of the percentage direct.

5.2.12 Actual scaling percentage.

In this window the actual scaling percentage is shown. You can write the percentage, You want to scale with, direct in the window or use the up-/down buttons.

5.2.13 Set price.

"Price". Set the price individually for each drink. How to set the prices depends on the payment system, - are the the prices real prices or index numbers? Are You using priceline mech., Executive, BDV or MDB?

Important! If You are using a priceline coinmech, only two prices can be used and they must be either 0,01 or 0,02! The real price is set in the coinmech.

5.2.14 Top Stop time.

Set the FB "top stop" (infusion time) of the current drink. Is only active with ES or FB drinks! The top stop time is the time between closing the water valve and until the piston moves downwards. In the ES the "top stop" defines the time from end of brew process to release of the coffee waste.

5.2.15 Absolute quantity window.

"Absolute quantity". Shows the absolute amount of the the selected ingredient, if one of the preselection fields are selected.The value shown in the window is the scaled value.

5.2.16 Check drink setting.

"Check". This function can be used to check whether the ingredients in a drink, - water time and powder time, are matching, - meaning that the timing between powder and water are correct. This prevents blocking of the mixing funnel.
In some cases this function will report an error, even though the setting is correct, eg. Espresso with sugar direct in the cup without water.

5.2.17 Cancel drink setting.
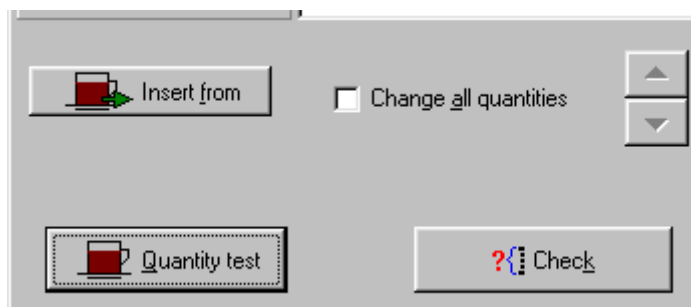
"Cancel". Discard the changes You have made.

5.2.18 Save and exit drink setting.

"OK". Click to exit the panel and save the drink settings.

5.3 Test and simulate a drink setting.

5.3.1 Quantity simulation.

Click "Quantity test" button to perform timing or quantity test!

The first window of Figure "Quantity test" shows the timing of the ingredients. It is VERY IMPORTANT that the ingredient relations are correct. Please read the topic "The EVA-DTS file and how to edit" telling about the EVA-DTS file.
The second window of Figure "Quantity test" shows the amounts of ingredients. In both windows You can click on the preselection button and see the influence.
Pressing the preselection buttons will show the change in the timing or amount of the ingredients according to the setting of the preselection button.
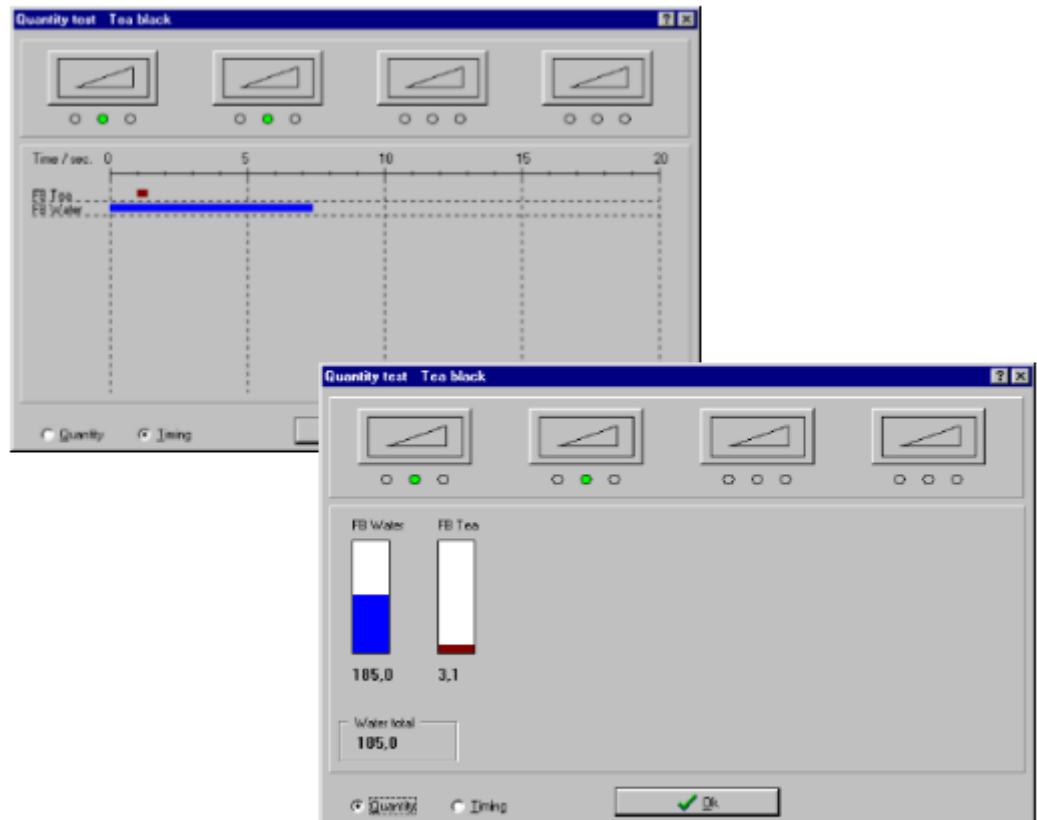

Figure "Quantity test"

6   System and display texts.

6.1   Editing tetxs

You can edit the scrolling text in the field. Maximum 240 characters. To have the best performance in the display, it is good to add 12 spaces at the beginning and the end to avoid flickering texts. Click "Center text" button to do this automaticly.
You can have different texts in normal operating mode and "Happy Hour" mode.
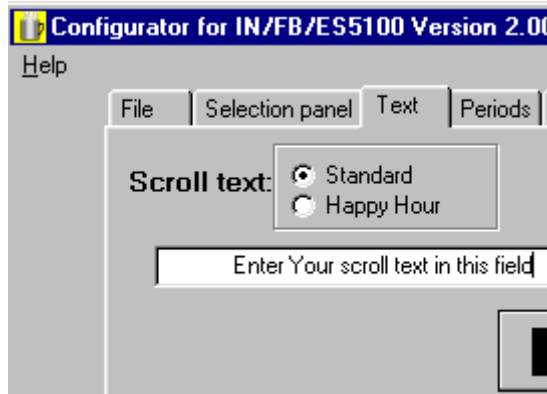
You can edit both system and error texts. The left column shows the explanation text, and in the right column, you can write your own text corresponding to the explanation text. The fields are restricted to different numbers of characters. Only legal number of characters can be entered.

7 Energy save and Happy Hour periods.

7.1 Set periods, energy save/Happy Hour

Choose whether You are setting "Period type" to "active" or "Happy Hour".
"Active periods" are time periods where the machine is in operational mode, - the opposite of "shut down periods", and "Happy Hour periods" are time periods, where You can have an alternative scrolling text and an optional discount setting.
"Period index", You have 7 possible indexes/numbers with individual settings.

The "Start" time and day of the period. The period must not exceed Sunday to Monday, eg. Monday 00:00 to Sunday 23:59 is legal, but not Thursday to Tuesday is illegal.

The "End" time and day of the period. The period must not exceed Sunday to Monday, eg. Monday 00:00 to Sunday 23:59 is legal, but not Thursday to Tuesday is illegal.

8   Machine settings.

8.1   Key discount and multibrew.

8.1.1   Set number of multibrew or key discount.

The number of multibrew portions and the value of the key discount (in %) are determined. Edit the value direct in the field or use up-/down button.
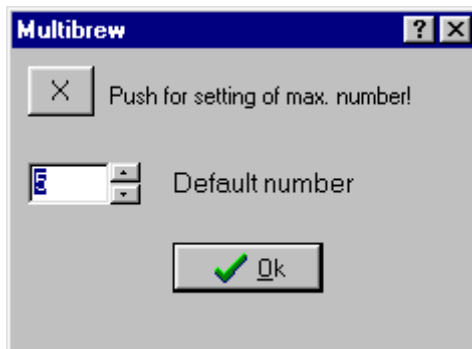
Key discount can be set from tab sheet "Payment" too!!
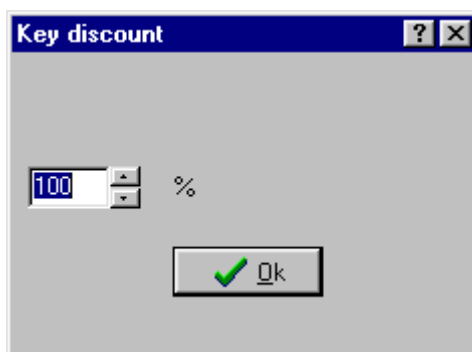
8.1.2   Set max. allowed numbers of multibrew.

Set the max. allowed number of cups for the multibrew function.If this value is zero(0), the multibrew function is off.
Edit the value direct in the field or use up-/down button.

8.2 The water tank temperature.

8.2.1 Set temperature.

Temperature settings for FB and IN.

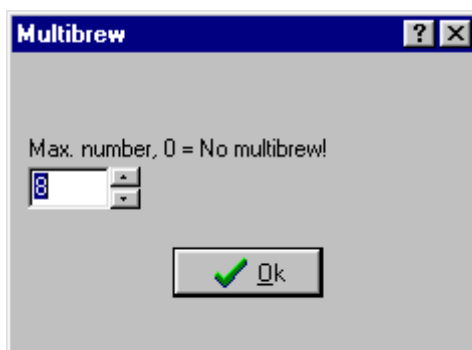- "Day-temperature" is the nominal temperature eg. 94° for FB and 85° for IN. The average day temperature in the water tank. This is not the max. temperature in the water tank, The peak value of the water tank is 2-3 deg. higher than the average temperature.

- "Hysteresis" is the temperature difference, where the heating element is either on or off. If this is set to 1 and the temperature is set to 94 °C, the heater will switch on at 92 °C and off at 95°C. This value should not be less than 1, as it will cause the heater relay to switch on and off with a low interval and cause unnecessary wear of the relay.

- "Unlock-temperature". If the machine has been inhibited due to temperature below "Lock-temperature", the temperature must raise to this temperature before the machine is enabled again.

- "Lock-temperature". If the temperature drops below this temperature, the machine inhibits.

- "Night-temperature" is the average temperature in energy saving mode, - normally set to 65°. Must be a temperature higher than 60° to prevent bacterial growth.

Temperature settings for ES.

- "Minimum-temperature" is the temperature in the tank shortly after an ES drink has been dispensed, - normally set to 96°.

- "Maximum-temperature" is the temperature in the tank after a standby period, where ES valve and brewer are cooled down, - normally set to 102°.

- "Minimum and Maximum" temperature settings ensure a constant temperature in the brewer of approx. 92°. If these two temperatures are changed, the brew temperature cannot be guaranteed.

- "Relative lock-temperature". The temperature in the tank will depend on when a drink has been dispensed last time, and can then be between "Minimum-temperature" (96°) and "Maximum-temperature" (102°). "The relative lock-temperature" is the temperature difference between the tank temperature and the temperature, where the machine is in "low temperature" mode.

- "Night-temperature" is the average temperature in energy saving mode, - normally set to 65°. Must be a temperature higher than 60° to prevent bacterial growth.

8.3   Additional machine settings.

8.3.1   Set limits of ingredients.

Set limits of ingredients, valves and whippers preventing Your customer from misadjusting the machine. If You set the limits to eg. 20%, it is only posible to change the drink setting +-20% from the user menu system.
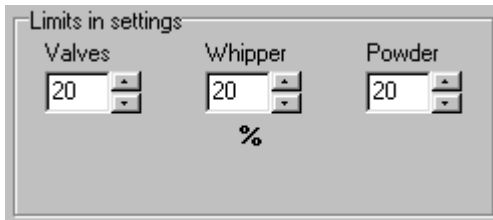

Figure "Limits"

8.3.2   Set water leakage timeout.

Set the timeout in seconds. If eg. a valve is leaking, the on time of the inlet valve is summarized, and when the summarized time exceeds the timeout time, the machine is disabled and an error message is displayed. The summarized time is reset whenever a vend is made.
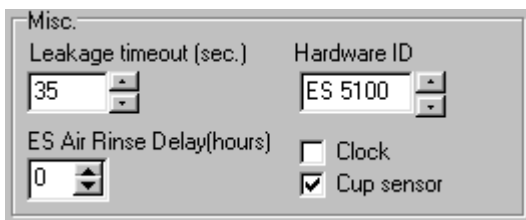

Figure "Misc."

8.3.3   Set hardware ID.

Choose the machine type You want to make the configuration file for, eg. ES5100, FB5100, IN5100. See figure "Misc.".

8.3.4   Set ES Air rinse interval.

Set the interval in hours, in which You want Your espresso machine to perform a brewer cycle with coffee and water to prevent blocking of the filter and restriction in the outlet. If You set the value to 0 hour, the interval will be 1 hour, and the first rinse cycle will be performed on power up. See figure "Misc.".

8.3.5   Set the clock ON/OFF.

If You want to use time depending functions, - like "Happy Hour periods", "active periods", You need to set clock on.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Misc.".

8.3.6   Set cup sensor ON/OFF.

If You want the cup sensor to be active, - preventing injury, like scalding of Your customer, You must check this function.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Misc.".
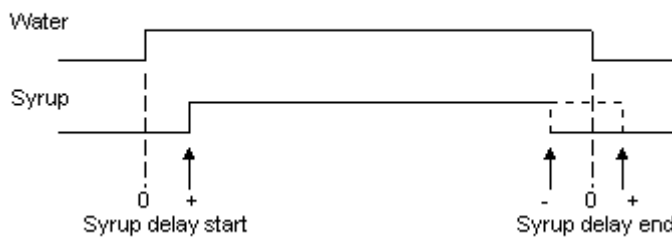
8.3.7   Set syrup delay.

Set the start and the end delay of the coffee syrup. **!!** Set in 1/10 sec.

```
┌Syrup delay(1/10 sec.)─┐
│  Start:               │
│  ┌───┐ ┌─┐            │
│  │3  │ │▲│            │
│  └───┘ │▼│            │
│        └─┘            │
│  End:                 │
│  ┌───┐ ┌─┐            │
│  │4  │ │▲│            │
│  └───┘ │▼│            │
│        └─┘            │
└───────────────────────┘
```

-

```
Water   ───────┌──────────────────────┐──────
               │                      │
Syrup   ───────│──┌───────────────┌ ─ ┐│──────
               │  │               ┊   ┊│
               ┊  ↑               ↑  ┊↑
               0  +               -  0 +
          Syrup delay start     Syrup delay end
```

8.4   Rinse function.

8.4.1   Set rinse Function.

Choose if You want this function to be off, only reported in the display or the machine should be inhibited, when "rinse Interval" is exceeded.

```
┌Rinse function──────────────────┐
│ ┌────────────────────────────┐ │
│ │  ⦿ Function off            │ │
│ │                            │ │
│ │  ○ Only display            │ │
│ │                            │ │
│ │  ○ Machine off             │ │
│ └────────────────────────────┘ │
│  Rinse interval                │
│  ┌────┐ ┌─┐                    │
│  │0   │ │▲│                    │
│  └────┘ │▼│                    │
│         └─┘                    │
└────────────────────────────────┘
```

Figure "Rinse function"

8.4.2   Set rinse interval.

Set how many drinks the machine can delieuer before this function is activated. How the machine performs, depends on which of the "Rinse Function" options, You have chosen. See figure "Rinse function".
An example:
If You have an Espresso machine, You can use this function to avoid overflow in the coffee waste bucket, by setting "Rinse Interval" to 60, "Rinse Function" to "Display only", and change the error text for this function to "Empty Waste Bucket". Look into the help topic "Editing the system or the error texts".

8.5   Virtually empty sensors.

8.5.1   Set the full weight for each canister.

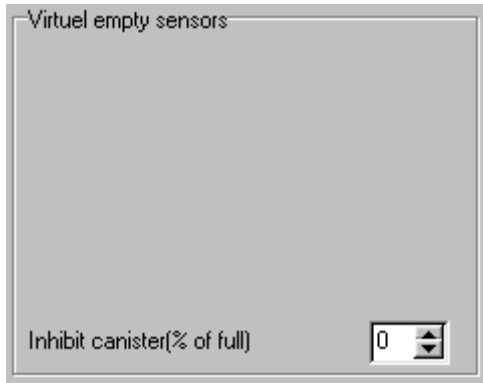If You set "Inhibit canister" to 0 %, the function is OFF.

Figure "Virtuel empty sens. 1"

If You want to use "the virtual empty sensors", You must type in the full weight values in kg. for each canister eg. how much chocolate can a full chocolate canister contain?
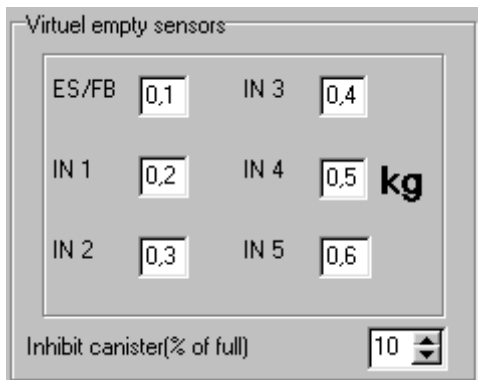IN4 and IN5 are only avaible in IN models, and placed on the left ingredient table.

Figure "Virtuel empty sens. 2"

8.5.2   Set percentage for empty sensor.

Set the percentage, of powder left in the canisters, at which the canister will be reported empty. If You set the percentage to 10 and the full weight of the canister is 2.5 kg, the canister will be reported empty at 0.25 kg.
The text "Sold out" will be displayed, if a drink with an "empty" canister, is selected. See figure "Virtuel empty sens.1" and "Virtuel empty sens.2".

8.6   The display

8.6.1   How is the display controlled.

Select the "display line", You want to edit, - upper or lower line. In the check box, You can select what You want to be shown in display.
If You want the time and date to be shown, please remember to set the "clock" on.
For futher information, please refer to "5100 EVA-DTS manual" topic "Controlling the Display".

Figure "Display"

9   Payment system.

9.1   Payment

Figure "Payment"

9.2   Set the type of payment system.

Set the type of payment system You want to use with Your machine. See figure "Payment".

9.3   Set max. credit.

Set the maximum credit that You want the BDV/MDB payment system to accept. See figure "Payment".

9.4   Set max. change.

Set maximum change that the BDV/MDB coinmech can return as change. See figure "Payment".

9.5   Set price mode.

Set price mode to real or index. If the payment system holds the prices i.e. Wittenborg Catercard the price mode must be set to index. Button 1= 0.01, button 2=0.02 and so on.
If payment system MDB is selected, price mode is automatically set to real, and if 2-price is selected, price mode is automatically set to index.
See figure "Payment".

9.6   Set key discount.

If price mode "real" is chosen and the machine is in "key discount" mode, all prices will be reduced with the "key discount" percentage.
If price mode "index" is chosen the "key discount" value is added to the price index, that means if You e.g. use a Wittenborg Catercard system and use price no. 5 for a certain drink, and "key discount" is set to 50, the price for the drink will be no. 55.
OBS! Key discount can be set from tab sheet "Selection panel" too! See figure "Payment".

9.7   Set Happy Hour discount.

If price mode "real" is chosen and the machine is in "Happy Hour" mode, all prices will be reduced with the "Happy Hour discount" percentage. If price mode "index" is chosen the "happy hour discount" value is added to the price index, that means if You e.g. use a Wittenborg Catercard system and use price no. 5 for a certain drink, and "key discount" is set to 50, the price for the drink will be no. 55. See figure "Payment".

9.8   Set multivend ON/OFF.

If "multi vend" is on, the customer can make more selections, if credit is adequate. If "multivend" is off, the customer can make only one selection, and the payment system gives change back/releases the card.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.9   Set freevend ON/OFF.

Set freevend on or off.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.10   Set password protection of freevend ON/OFF.

If "password protection of freevend" is checked, freevend ON/OFF can only be changed from the service menu, - a password is needed to enter this menu.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.11   Set obligation to buy ON/OFF.

If "obligation to buy" is checked, the customer has to make a vend. The machine cannot be used as a money changer.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".
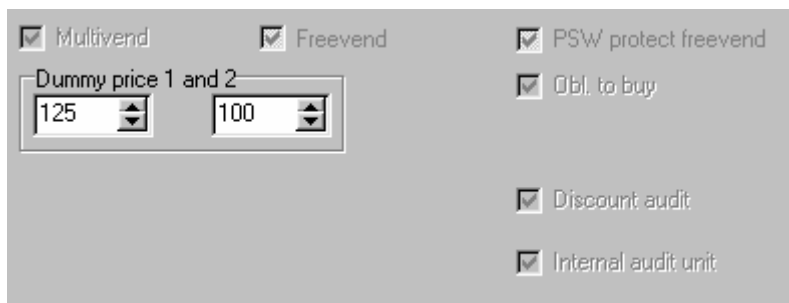
9.12   Set discount audit ON/OFF.

If "Discount audit" is checked, vends made with 100% key discount will be counted as freevend, and not in total discount counter.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.13   Set audit unit. Internal or external.

If no external audit unit is connected, this function should always be set to internal audit unit, - checked.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is

greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.14   Set credit to overpay ON/OFF.

If checked and the coinmech is unable to return the correct change, - less than required, the additional credit will be counted in the "value overpay" counter. This function is only available for MDB payment system.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.15   Set "Show dummy price" for priceline

As a priceline payment system cannot send information of price setting to the VMC, prices can be shown in the display by typing in dummy prices for price 1 and 2. You can only type in values without decimal point, - decimal point can only be set in the machine.

Make sure the prices are identical with the prices set in the payment system!

9.16   Set ZKA mode for MDB ON/OFF.

If this function is checked, the machine acts in BDV/MDB with ZKA option.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

9.17   Set "show MDB texts" for MDB ON/OFF.

If this function is checked, the MDB payment system will be able to write direct in the display of the machine.
If the checkbox and the corresponding text is grey, this means that the function is undefined, - no data for this function has been read from a file. When You store data in a file, and the function is greyed and untouched, NO information for this function will be stored in the file. See figure "Payment".

10   Print the settings.

10.1   Select printer and what to print.

Use "Mark all" or "Unmark all" to either select or deselect all item groups or select the item groups
You want to print individually. If You have more available printers, You can choose one from the drop
down list.

What is inside the different groups of the check box?

- **Drinks:** Drink settings, drink names, drink audit groups.

- **Preselect:** Settings of preselection button.

- **Price:** Prices for each drink.

- **Roll text:** Normal roll text and Happy Hour roll text.

- **Display text:** System - and error texts.

- **Periods:** Energy save - and Happy Hour periods.

- **Machine data:** Temperature settings, user limits in settings, coffee syrup start/stop delay, ES air
  rinse delay, clock, cup sensor, water leakage time out, rinse function, virtual empty sensors, display
  settings, multibrew.

- **Payment system:** Max. credit, max. change, payment type, price mode, key discount, Happy Hour
  discount, multivend, obligation to buy, freevend, discount audit, audit unit, overpay for BDV, MDB,
  ZKA mode and show texts for MDB.

- **Ingredient:** All ingredients, - used and not used.

- **Audit:** All available counters, actual date and time of the machine, program versions from VMC
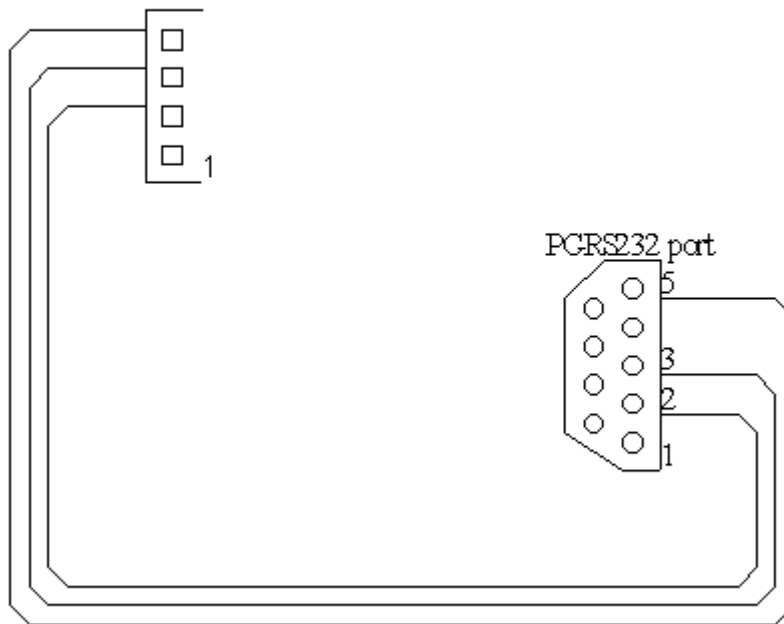 and SPC, events from the log book.

11   Up-/download.

11.1   Cable for RS232 connection.

For 5100 machine with a machine number lower than 502.922, a cable like shown on the picture shall be used.
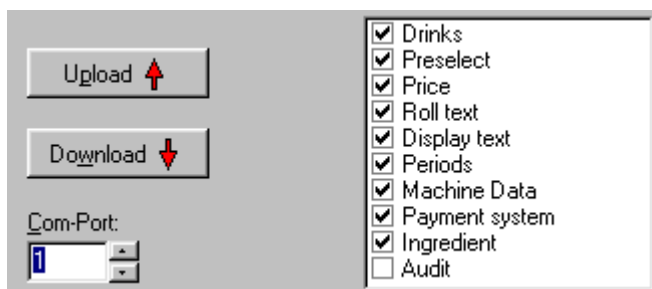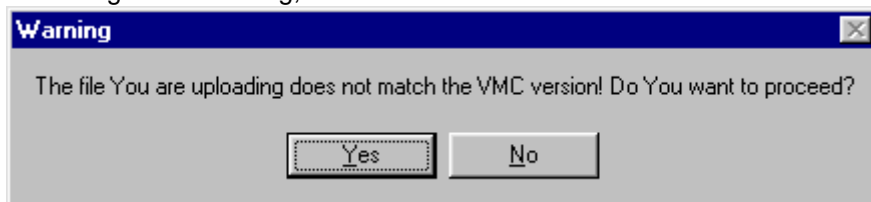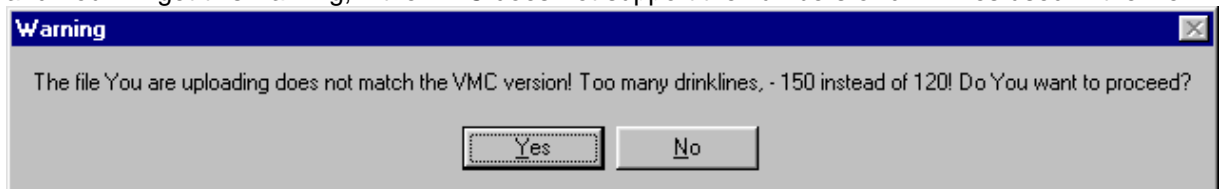

A 5100 machine with a machine number higher than 502.922 is equipped with a 9 pole Sub-D pin connector. Use a monitor cable with two 9 pole Sub-D female connectors, 1:1 connection, eg. RS Component order no.116-4228 or roline order no.11.01.5918.

11.2   Set the COM port.

Select the COM port to which You have connected the serial connection for Your 5100.

11.3   Select what to up- or download.

Use "Mark all" or "Unmark all" to either select or deselect all item groups or select the item groups You want to up- or download individually.

What is inside the different groups of the check box?

- **Drinks:** Drink settings, drink names, drink audit groups.

- **Preselect:** Settings of preselection button.

- **Price:** Prices for each drink.

- **Roll text:** Normal roll text and Happy Hour roll text.

- **Display text:** System - and error texts.

- **Periods:** Energy save - and Happy Hour periods.

- **Machine data:** Temperature settings, user limits in settings, coffee syrup start/stop delay, ES air rinse delay, clock, cup sensor, water leakage time out, rinse function, virtual empty sensors, display settings, multibrew.

- **Payment system:** Max. credit, max. change, payment type, price mode, key discount, Happy Hour discount, multivend, obligation to buy, freevend, discount audit, audit unit, overpay for BDV, MDB, ZKA mode and show texts for MDB.

- **Ingredient:** All ingredients, - used and not used.

- **Audit:** All available counters, actual date and time of the machine, program versions from VMC and SPC, events from the log book.

11.4   Start upload.

Start the upload. Progress in the operation will be shown in a small window. You can cancel the operation any time by pressing the cancel button.
During upload of data, the Configurator asks the VMC for its Eprom version to be sure, that the file version matches the Eprom version, - EVA-DTS 1 or 2, vv1 or vv2.
The Configurator can prompt You with two different warnings/questions!

You will get this warning, if the file is a different EVA-DTS version than the VMC supports,

Warning ⊠

The file You are uploading does not match the VMC version! Do You want to proceed?

[Yes]   [No]

and You will get this warning, if the VMC does not support the numbers of drinklines used in the file.

Warning ⊠

The file You are uploading does not match the VMC version! Too many drinklines, - 150 instead of 120! Do You want to proceed?

[Yes]   [No]

Eprom version 00601190 and newer, supports 150 drinklines. Look into the topic "Drink setting panel"! The graphic shows a drink with two drinklines in use, and the sum of all drinklines in use cannot exceed 120 in Eprom versions older than 00601190, and Eprom version 00601190 and newer support up to 150 drinklines. The number of drinklines in an IN5100 with all selection buttons in use, can easily exceed 120 drinklines.

!! If any error occurs during this operation, reload data otherwise the machine can/will malfunction.

11.5   User specified download

If "Specify download" is checked, a window appears, in which You can type a text string defining, what You want to download. You can make a more specific download in this way, than using the checkbox above. The syntax is very importent, and must be like this: **ID1,VA1.** The number of items must **not exceed 7 and You must use only capital letters!**
The string **ID1,VA1** will give You the ID of the machine and the total counters, - number of vends and value.
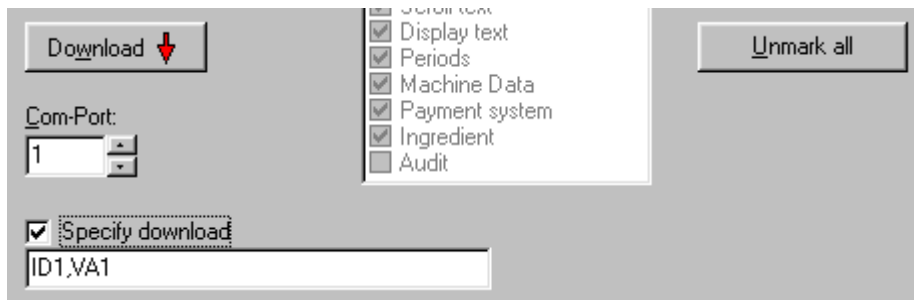
More information about how to specify a download, please refer to EVA-DTS specification for 5100 or EVA-DTS Manual for 5100!

11.6   Start download.

Start the download. Progress in the operation will be shown in a small window. You can cancel the operation any time by pressing the cancel button.

After download You will be prompted by a save dialog to type in the path and filename for the downloaded data. The default filename is the text from the ID field of the machine, - see chapter "Open/save file", topic "ID", and the file extention is fixed to *.dwl.
If You cancel the save dialog, no data will not be saved.

12 Additional.

12.1 Audit.

12.1.1 Audit.

Audit information is only available when a download of audit has been performed or a file with audit information has been loaded. See topic "Up-/download" or "Open/save files"!
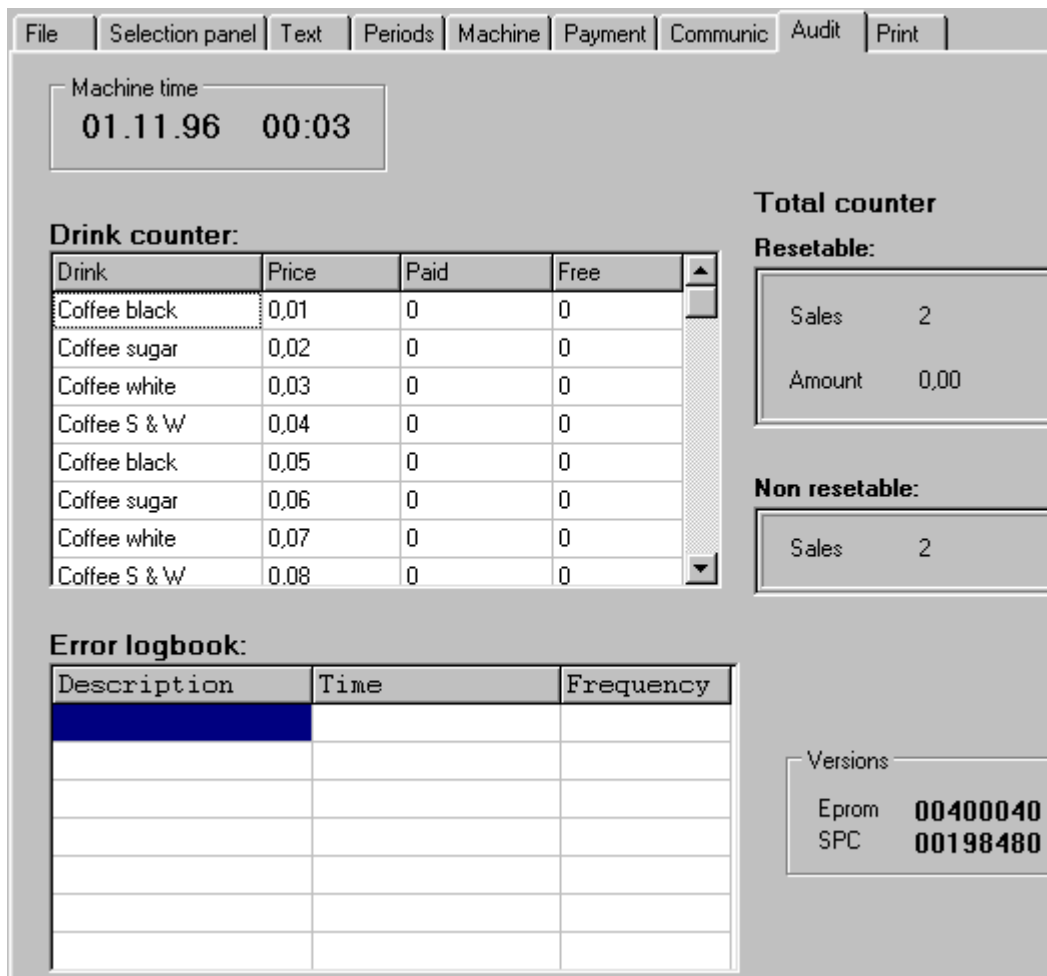
Figure "Audit"

12.1.2 Machine time.

"Machine time". Date and time, when the download was performed, from the internal clock of the machine. See figure "Audit".

12.1.3 Drink counter.

"Drink counter". Drink names, prices and drink counters, - paid and freevend, are available in this list, after a download of audit information or load of a file with audit information. See figure "Audit".

12.1.4 Counters.

"Total counter". Resetable and not resetable counters from the machine. See figure "Audit".

12.1.5 Error log book.

"Error logbook". Events from the "error log book" of the machine. See figure "Audit".

12.1.6 Program versions

"Versions". Program versions from VMC and SPC are shown here. See figure "Audit".

Index