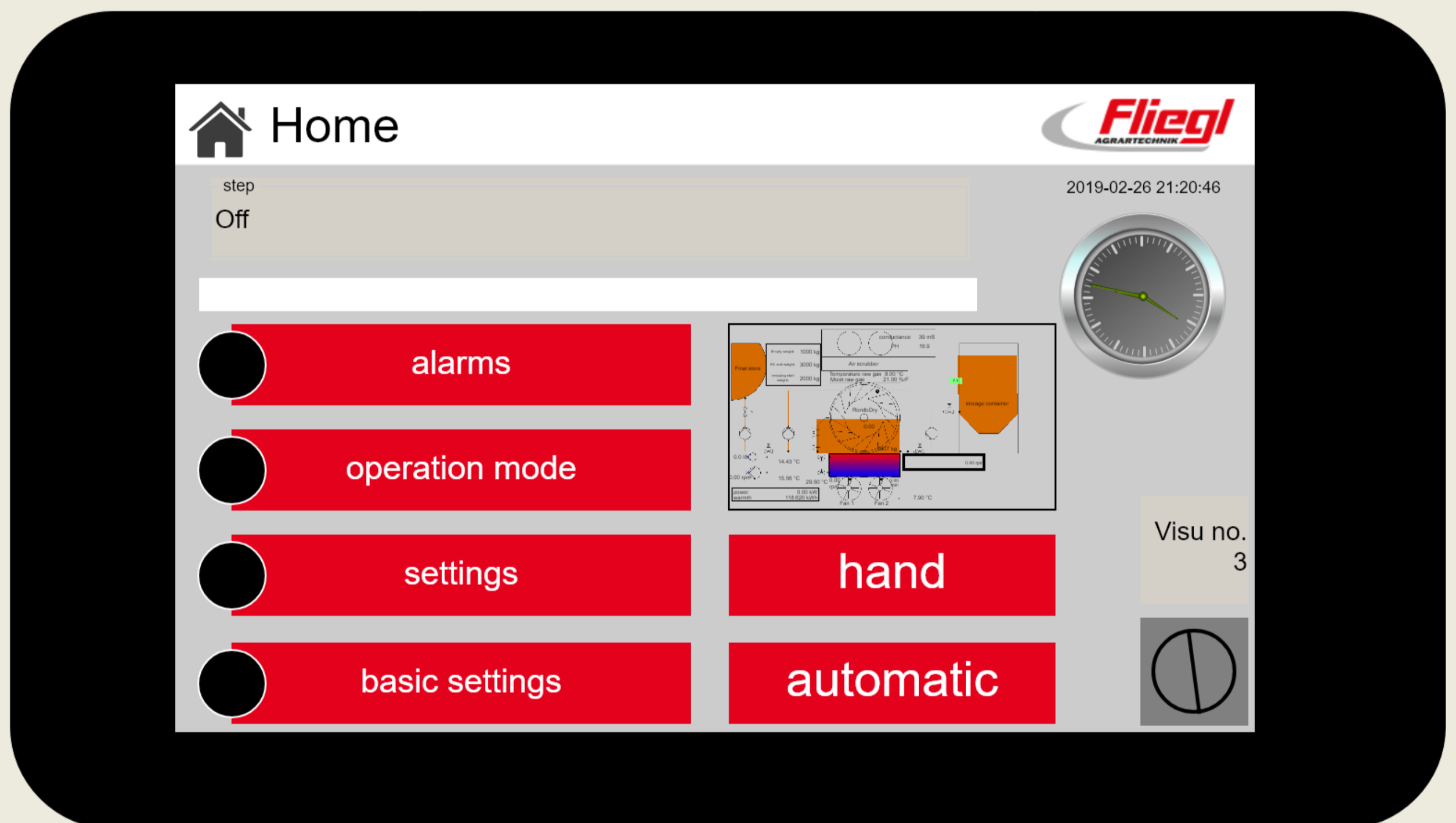


VERSION 2019

Instruction machine control

RondoDry



We are Fliegl.

english

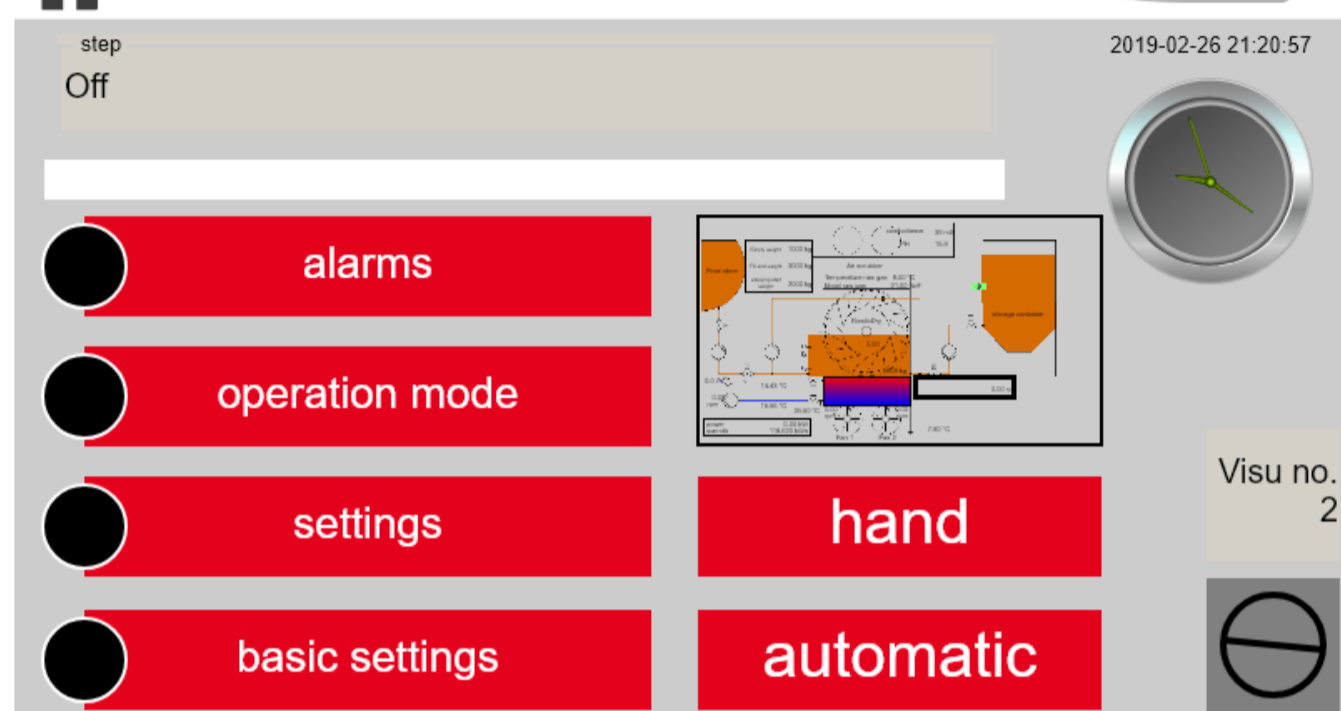
start page



start page

The start page appears after commissioning the controller. This symbol shows that the control is active (symbol rotates). If the symbol does not move, a restart of the control is necessary. The "Step" field always contains the currently active step from the step sequence or the current state. By pressing the "home button" the user gets to the main page. With the "Back button" the user gets back one level. The "control active" symbol, the "home key", the "back key" and the "step" field are multiple used elements that always have the same meaning.

Home



Home

The following elements are shown on the main page:
 + current step
 + last accumulated message including time stamp
 + an overview of the system with current measured values (reduced view).
 + Alarms
 + Operating mode
 + Settings
 + Basic settings
 + HAND
 + AUTOMATIC
 SR \$Clicking this button takes you to the corresponding subitem.

: This icon indicates that an alarm is currently active.



alarms

The "Alarms" page lists all active, unacknowledged alarms. Through pressing the "Inverter reset" button, a reset of the frequency inverter for the lattice drum motor is carried out. Touch the "Acknowledge Alarms" button, the active alarms are reset. Alarms are acknowledged if they can be acknowledged. The "History" button is used to display the active and past acknowledged alarms.

S	report	State	active	Inactive	Approved
0	Fault inverter drum	Normal	26.02.2019 21:19:55	26.02.2019 21:20:04	26.02.2019 21:20:05
1	Fault i550 Ethercat	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
2	overflow protection	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
3	Fault EL2008 PLC6	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
4	Fault EL2008 SPS7	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
5	Fault EL3202 SPS8	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
6	Fault EL1008 PLC4	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
7	Fault EL1008 SPS5	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
8	Fault EK1100 PLC2	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
9	Fault EL1008 PLC3	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
10	Emergency stop	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
11	Undertemperature limit	Normal	26.02.2019 09:39:01	26.02.2019 09:39:57	

Alarms history

Under "History" the last 200 alarms with timestamp and status are listed.

operation mode

init

Off

soft-Off

automatic

hand

operation mode

operation mode

Under "Operating mode", you can choose between the operating modes "OFF", "Automatic" and "Manual".

The corresponding operating mode is activated by touching the button.

If manual mode is activated, the individual actuators can be overridden Use the "Hand" button (main page). The HAND mode must not be used for maintenance. The mode HAND is automatically exited after a certain time, then all actuators go to "OFF ". RISK OF INJURY!!!

Overview

step Off

Final store

Empty weight: 1000 kg

Fill end weight: 3000 kg

emptying start weight: 2000 kg

conductance 39 mS

PH 16.9

Air scrubber

Temperature raw gas 8.00 °C

Moist raw gas 21.00 %rF

RondoDry

0.00

5907 kg

0.00 rpm

0.00 rpm

14.43 °C

15.56 °C

29.50 °C

0.00 rpm

0.00 rpm

7.90 °C

power 0.00 kW

warmth 118.620 kWh

Fan 1

Fan 2

Overview

The overview shows the actual and set values of the controller.

hand

Everything Off

filling valve

emptying valve

Closed

Closed

Release filling Externally

Release emptying Externally

filling pump

emptying pump

flushing pump

hand

If the "Manual" operating mode is active, pressing the switch opens and closes the corresponding actuator, or switches it on and off. A setpoint is specified via the "Setpoint" buttons

The "All Off" button is used to set the desired actuator "All drives are switched off and slide closed.

When operating mode "Automatic" or "Off" is active, pressing the button has no effect.

: No protective devices are active on the software side in manual mode.

auto

step Off

Off

EverythingOFFACT

Filling (net): 5907 kg

Fan 1: 0.00 rpn 3 W

Fan 2: 0.00 rpn 3 W

heat pump: 0.00 rpm 0 W

Drum 0 Hz 0 W

automatic

Here the actual values are shown. The "Odur Mode" and "Normal Mode" areas indicate which mode is currently active in automatic mode.

Coald setting for the automatic mode can be made under "Main Menu Settings."

hand

Everything Off



0



filling valve	emptying valve
Closed	Closed
Release filling Externally	Release emptying Externally
filling pump	emptying pump
flushing pump	

hand

If the "Manual" operating mode is active, pressing the switch opens and closes the corresponding actuator, or switches it on and off. A setpoint is specified via the "Setpoint" buttons. The "All Off" button is used to set the desired actuator "All drives are switched off and slide closed."

When operating mode "Automatic" or "Off" is active, pressing the button has no effect.

: No protective devices are active on the software side in manual mode.

filling valve	emptying valve		
Closed	Closed		
Release filling Externally	Release emptying Externally		
filling pump	emptying pump		
flushing pump			
drum			
0.00 rpm	0 Hz	Target speed	Inverter reset
0.00 rpm	0 W	50 Hz	
fan 1		fan 2	
0.00 rpm	3 W	0.00 rpm	3 W
0.09 A	Target speed	0.08 A	Target speed
14.00 °C	0.00 rpm	13.60 °C	0.00 rpm
heat pump			
0.00 rpm	Setpoint		
0 W	0.0 %		

hand frame

The other points are reached by scrolling down.

settings

1. drum	0 Hz 0 W	50 Hz
2. Setpoint fans	29.40 °C	100.00 °C
3. Setpoint heating pump	14.43 °C	100.00 °C
4. flushing intervals	0	40
5.1 flushing duration		T#2m
5.2 flushing time when Emptying		T#1m
odour mode		
6. Speed fans		350.00 rpm

settings

basic settings

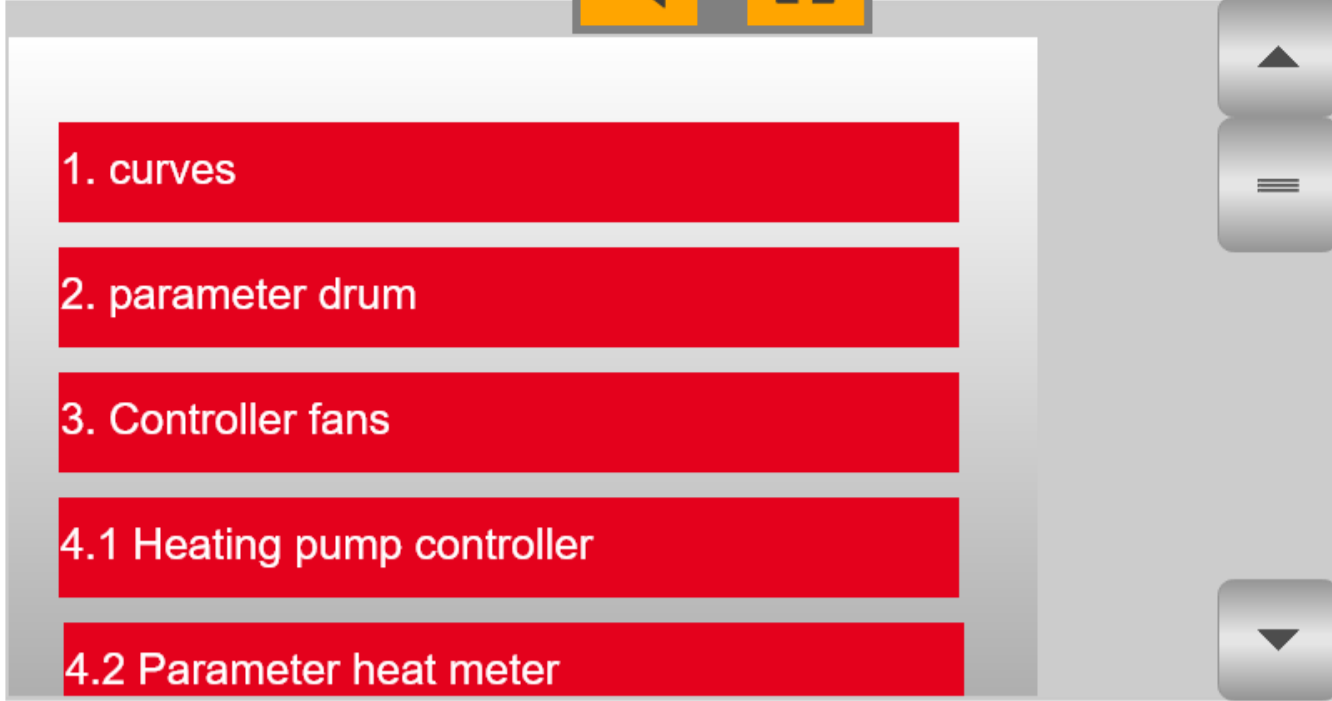
- 1. curves
- 2. parameter drum
- 3. Controller fans
- 4.1 Heating pump controller
- 4.2 Parameter heat meter

basic settings

settings

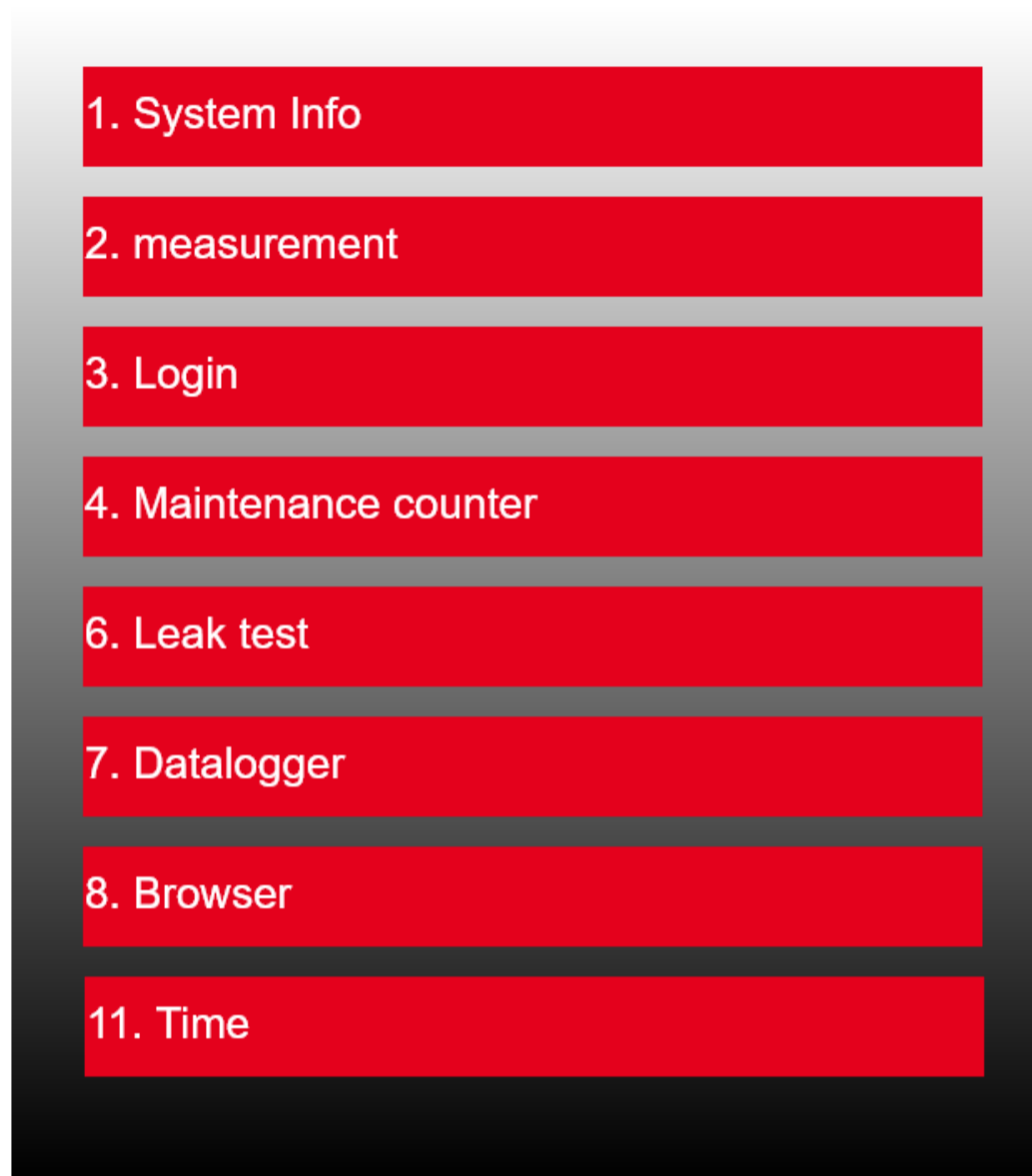
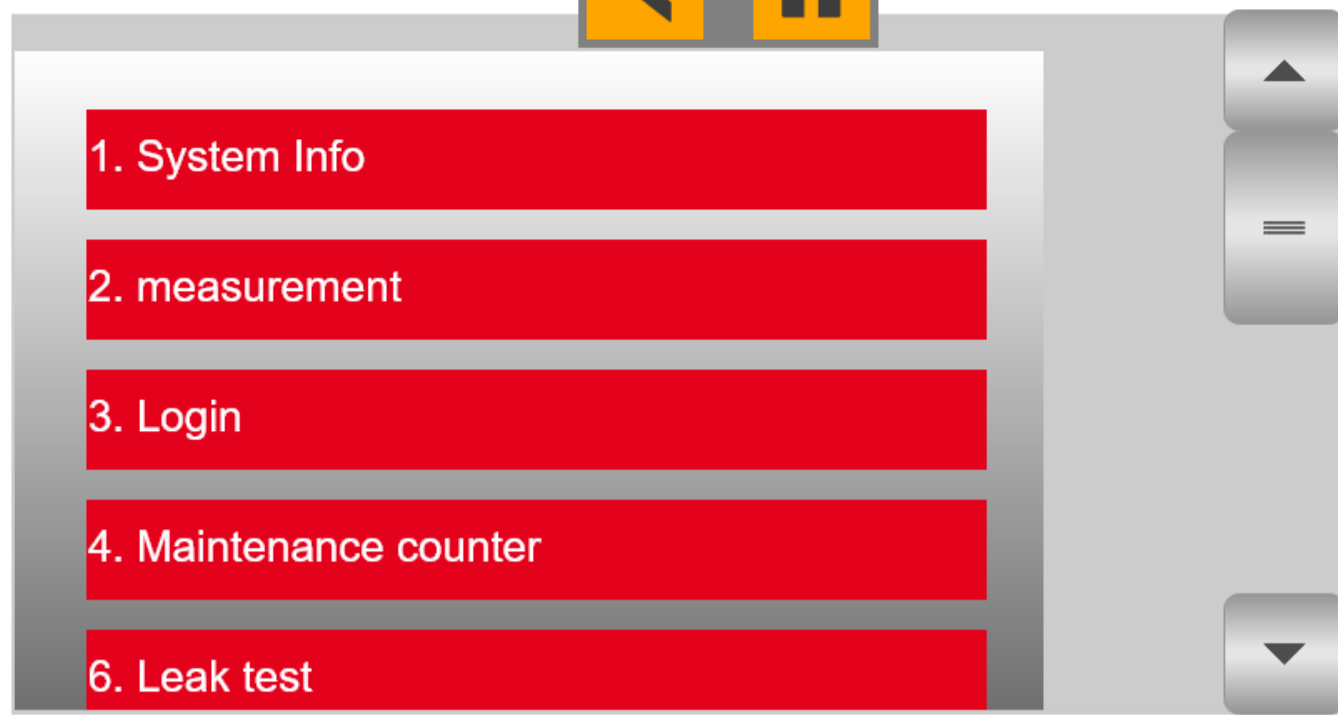
1. drum	0 Hz 0 W	<input type="text" value="50 Hz"/>
2. Setpoint fans	29.40 °C	<input type="text" value="100.00 °C"/>
3. Setpoint heating pump	14.43 °C	<input type="text" value="100.00 °C"/>
4. flushing intervals	0	<input type="text" value="40"/>
5.1 flushing duration		<input type="text" value="T#2m"/>
5.2 flushing time when Emptying		<input type="text" value="T#1m"/>
odour mode		
6. Speed fans		<input type="text" value="350.00 rpm"/>
7. Time reduced speed		<input type="text" value="T#0ms"/>
Weights (net)		
8. full weight		<input type="text" value="3000 kg"/>
9. emptying weight		<input type="text" value="2000 kg"/>
10. Empty weight		<input type="text" value="1000 kg"/>
Timers		
	min	Max
11. Filling	<input type="text" value="T#1s"/>	<input type="text" value="T#30s"/>
12. Drying	<input type="text" value="T#1s"/>	<input type="text" value="T#30s"/>
13. Emptying	<input type="text" value="T#1s"/>	<input type="text" value="T#30s"/>
Valve		
14. Monitoring time limit positions		<input type="text" value="T#2s500ms"/>
14.1 Monitoring time external		<input type="text" value="T#2s500ms"/>
15. Time delay to pump		<input type="text" value="T#5s"/>
16.1 Time emergency run		<input type="text" value="T#1h"/>
16.2 Time emergency run caster ramp		<input type="text" value="T#1m"/>
17. Maximum time hand active		<input type="text" value="T#15m"/>
18. Maximum time login		<input type="text" value="T#5m"/>
19. Folder log files		<input type="text" value="batch1"/>

1. Sets the drum rotation frequency
2. Specifies the setpoint for heat dissipation by the fans.
3. Specifies the setpoint for the control of the heating circulating pump.
4. Sets after how many filling and draining cycles a flushing process takes place.
5. Sets the amount of time that will be flushed.
6. Sets the fan speed at which the fans run during the odor mode.
7. Sets the amount of time the fans are in the odor mode at reduced speed to run.
8. Sets the full weight.
9. Sets the draining weight.
10. Sets the curb weight.
11. Sets the maximum time for the filling process.
12. Sets the maximum time for the evaporation process.
13. Sets the maximum time for the draining process.
14. Sets the monitoring time for reaching the end position of the slide valves
15. Sets the time delay between reaching the end position and pump release
16. Sets the length of time during which the system enters the operating mode "emergency operation".
17. Sets the maximum time for the manual mode.
18. Sets the maximum time for login (user).
19. Folder for log files



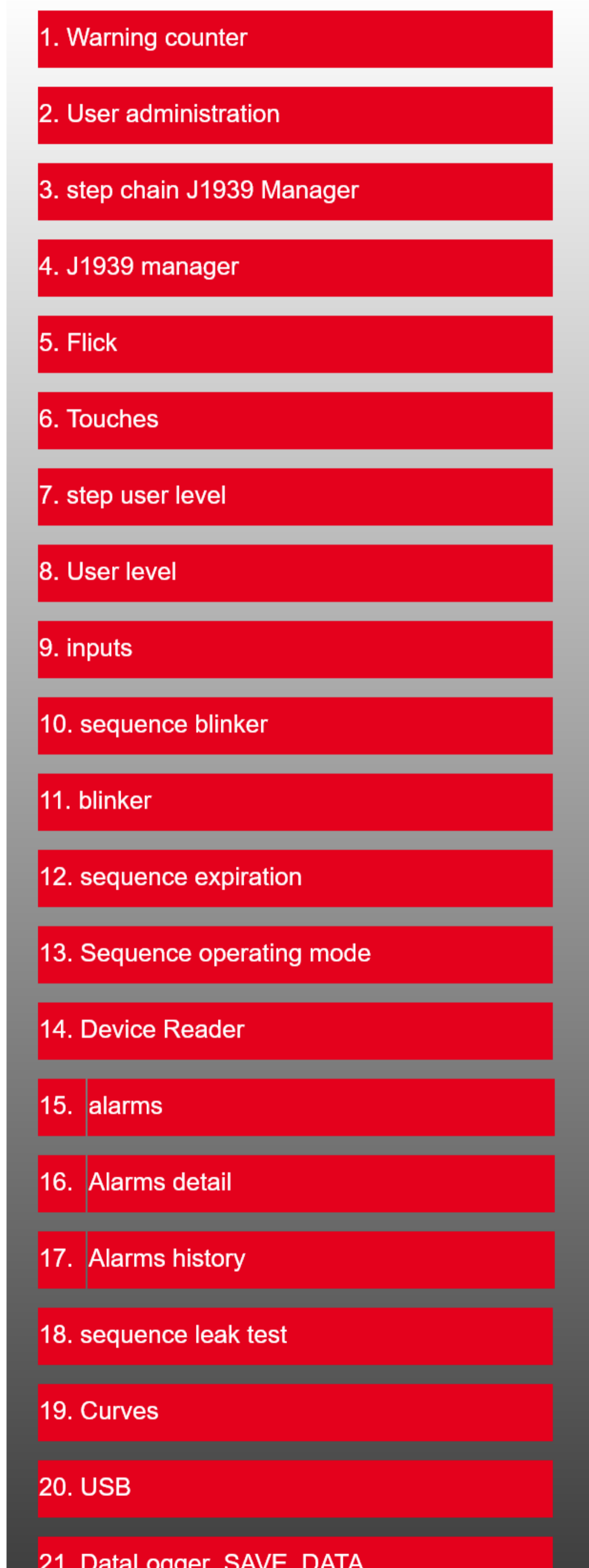
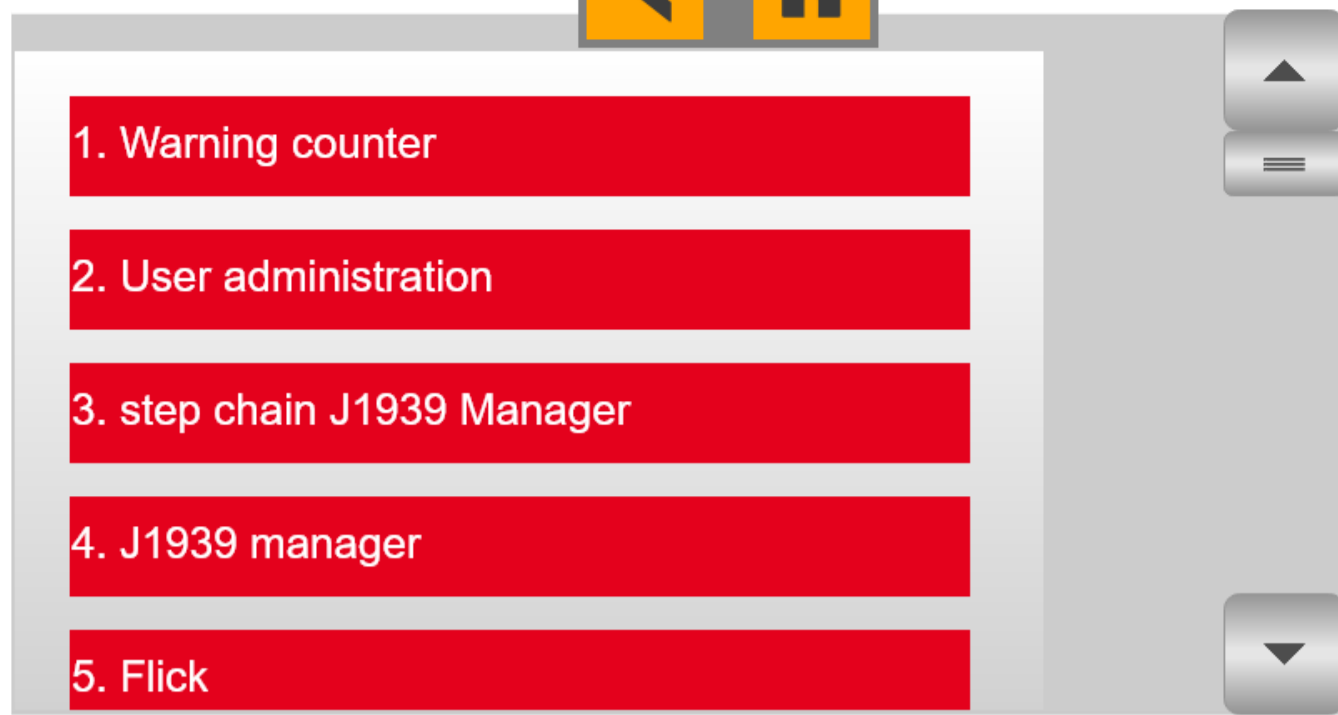
basic settings frame

The other points are reached by scrolling down.



14. Other frame

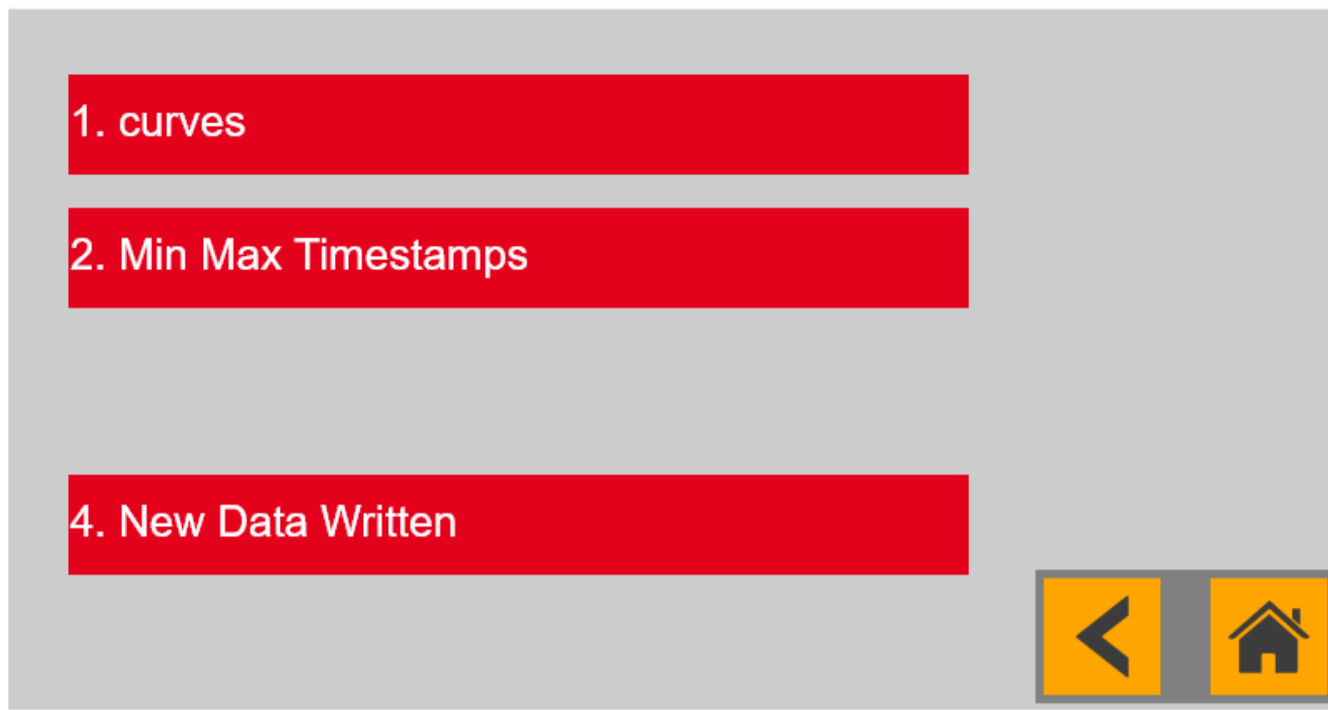
The other points are reached by scrolling down.



15. Functions frame

The other points are reached by scrolling down.

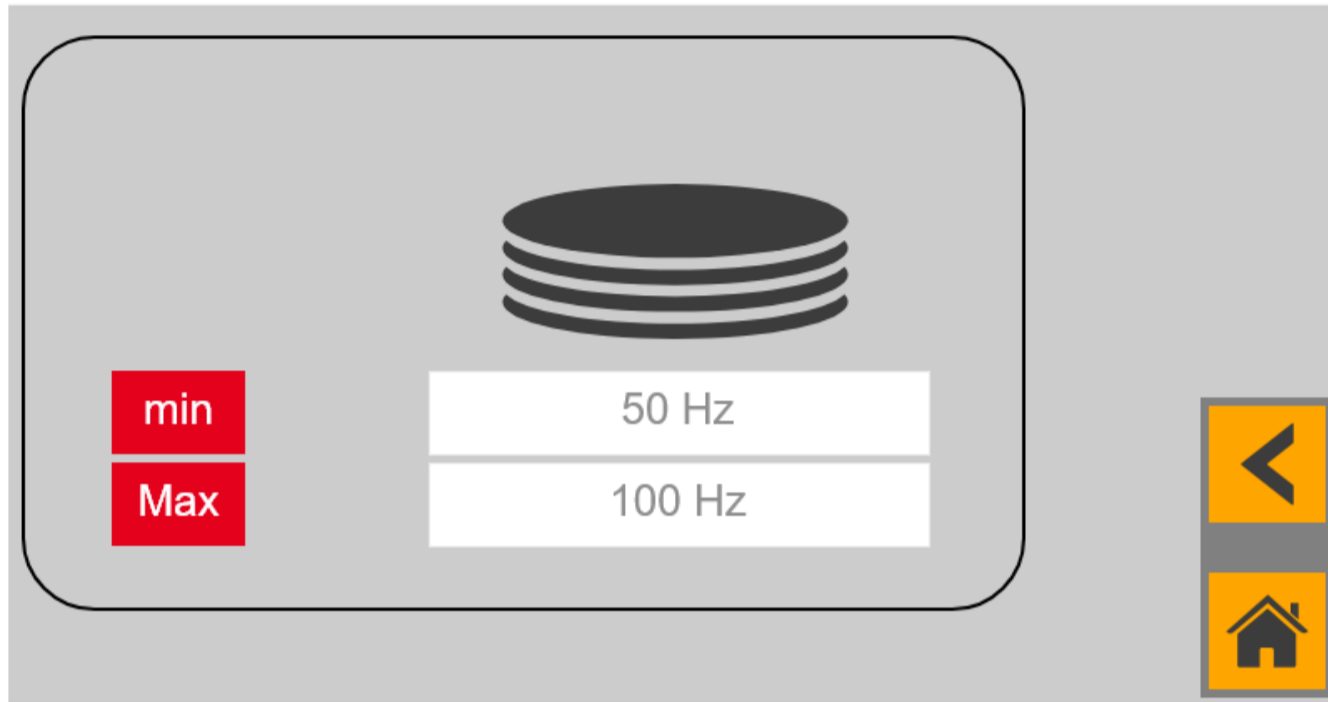
1. curves



1. curves

Curves graphically displays the recorded values of the listed sensors or loads.

2. parameter drum



2. parameter drum

Min and max limit the setpoint input in manual mode and automatic mode.

5. Parameter weighing system



total weight		5911 kg	Zero weighing system		400
Load cell	version	serial number	value	Raw	Offset
1	2.18	16120026.0	1324	1424	100
2	2.18	16120006.0	1867	1967	100
3	2.18	13060228.0	2301	2401	100
4	2.18	16120155.0	419	519	100

5. Parameter weighing sys

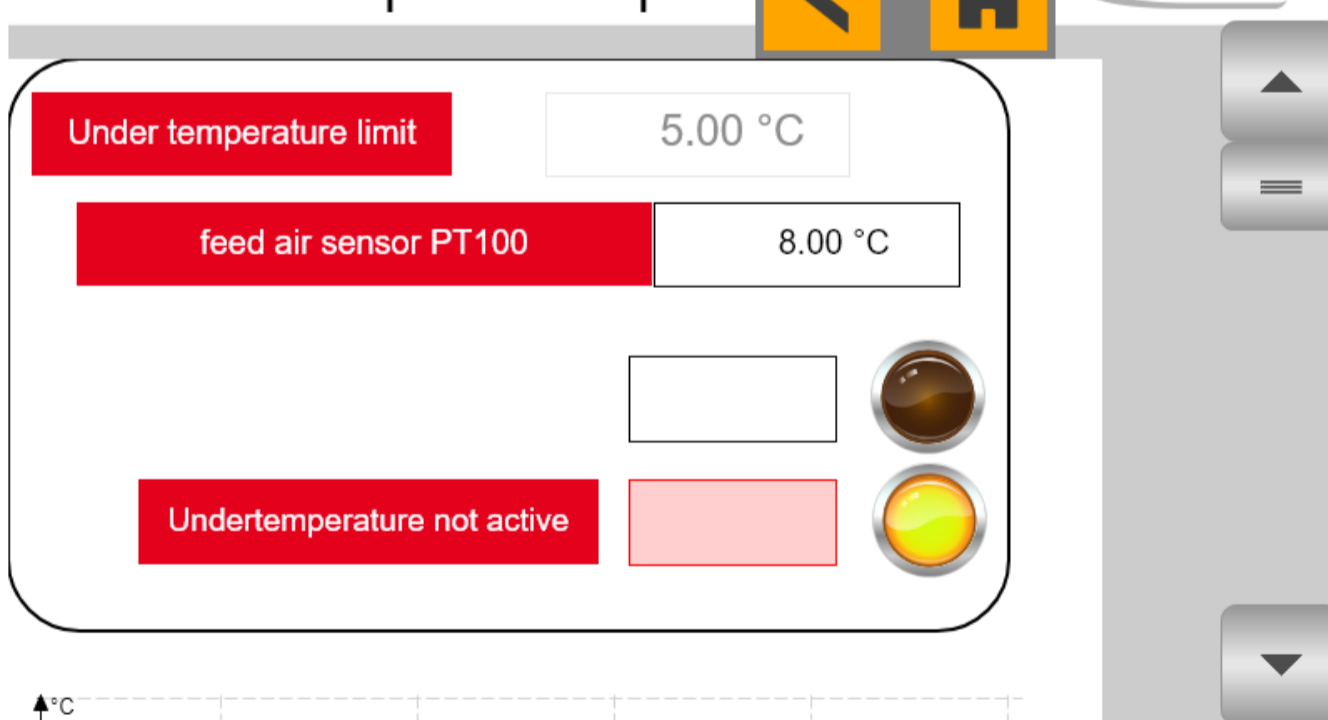
Used to adjust the load cells.

Valve zero:

Z.B. every half year (see maintenance / care interval list, see maintenance counter), the weighing system must be zeroed by the operator. The device must be completely empty and clean for this purpose.

The adjustable values for the individual load cells are set by Fliegl at the factory or at startup.

9. Under temperature protection



9. Under temperature prote

Undertemperature limit can be set under "Undertemperature protection."

When the set low temperature is reached, the low temperature protection becomes active.

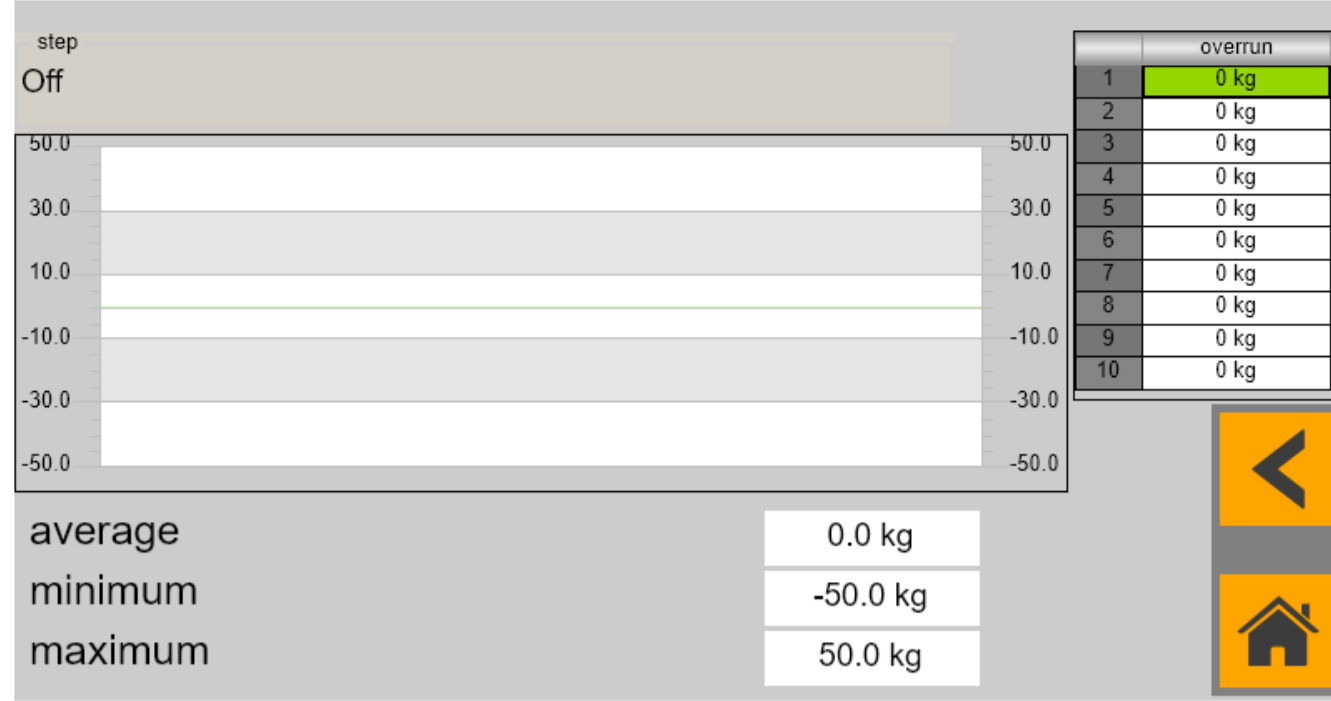
So both the supply air (ambient air) and the set low temperature limit value are displayed in the curve below the "Undertemperature protection" overview R \$N \$RNote:

The operator is responsible for frost protection. The equipment regulations of the heat exchanger manufacturer must be adhered to.

Should no heat be left on the dryer for an extended period of time, it is recommended that the system be completely emptied (liquid manure and heating water).

Scroll down to see the outside temperature during the day

6. Overflow correction, filling



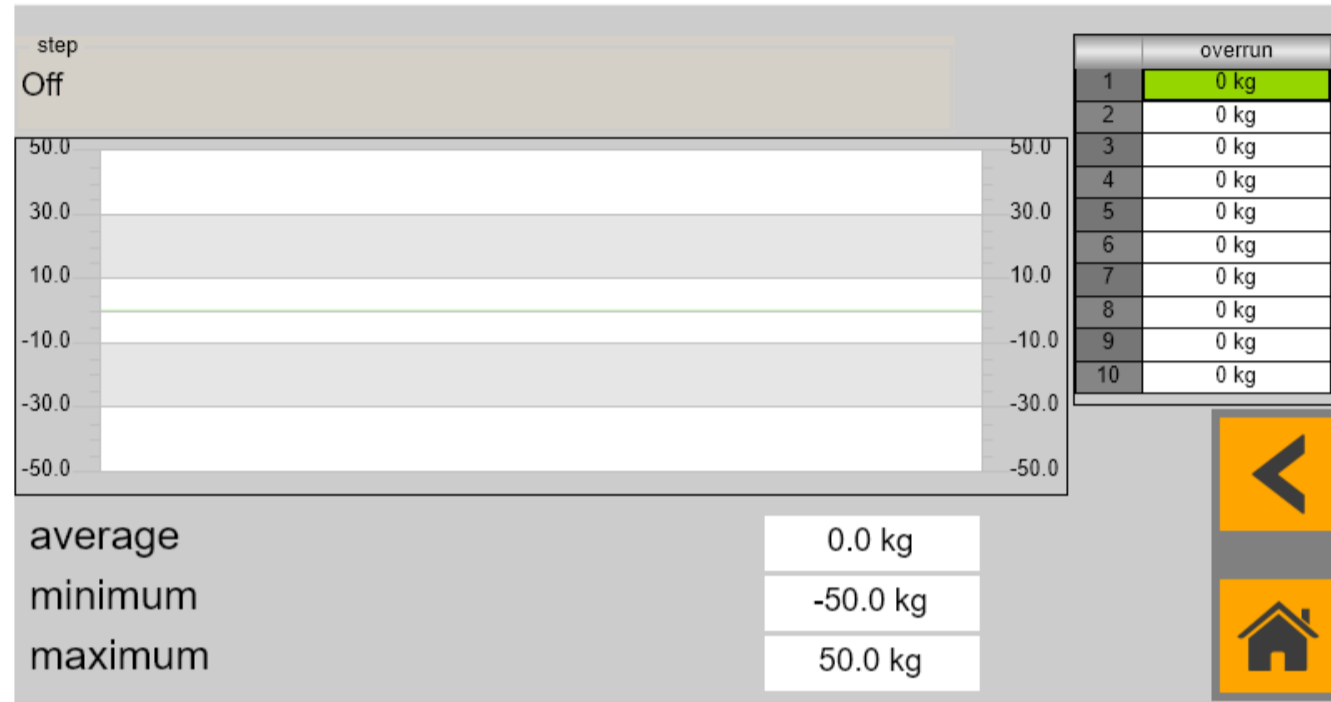
6. Overflow correction, filling

The "Overrun Correction" is used to compensate for the overflow of the filling pump

The controller detects the weight of the material that was filled in by the overrun (difference to the setpoint "full weight").

The deviations are recorded per cycle and from this the average of the last 10 cycles is formed. The overrun correction causes correspondingly less material to be filled in to correct the amount that has been filled too much by the overrun.

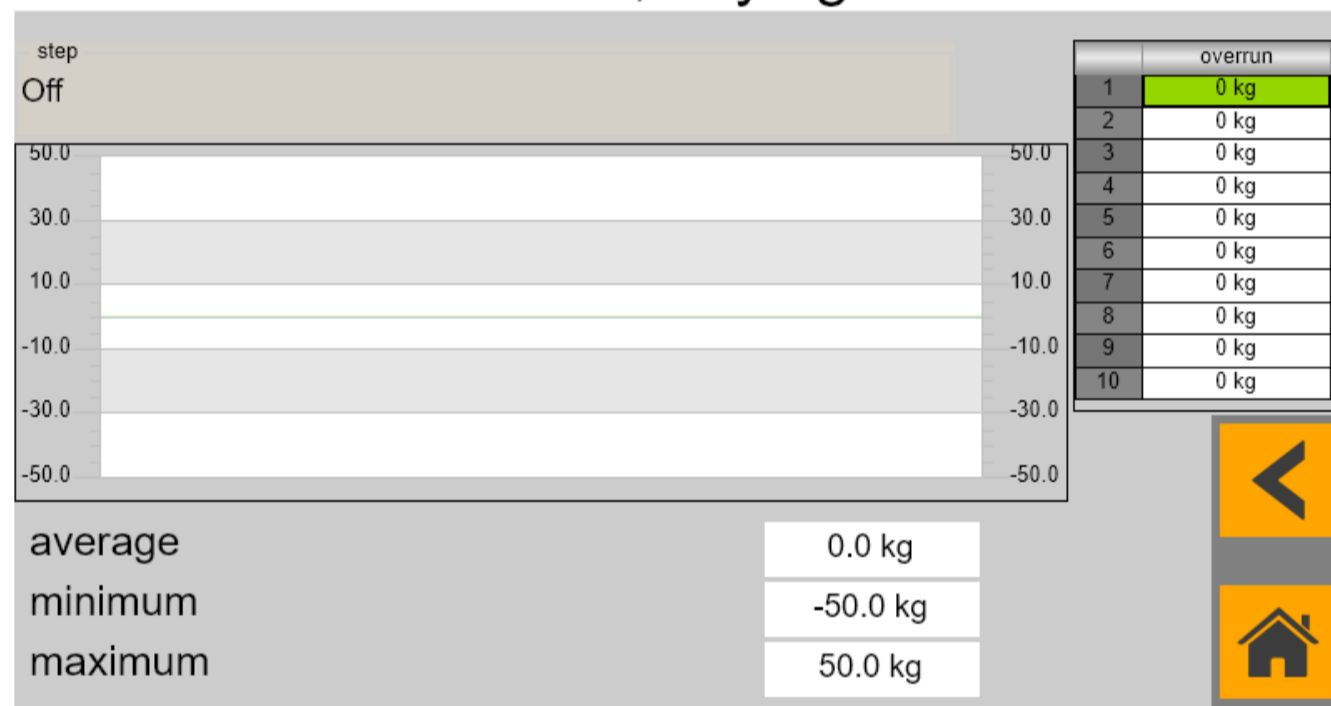
7. Overflow correction, emptying



7. Overflow correction, emptying

Like "Overrun Correction", only for the emptying process.

8. Overflow correction, Drying



8. Overflow correction, Drying

Like "Overrun Correction", only for the drying process.

3. Controller fans



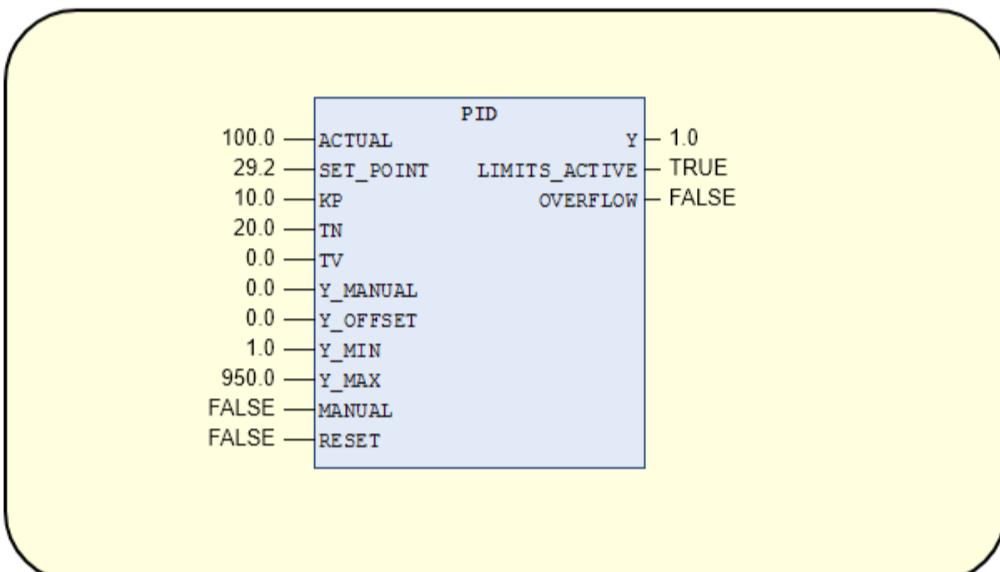
KP	10.0	Proportional factor (Kp)
TN	20.0	Reset time (Tn)
TV	0.0	Retention time (Tv)
min	1.0	min
Max	950.0	Max



3. Controller fans

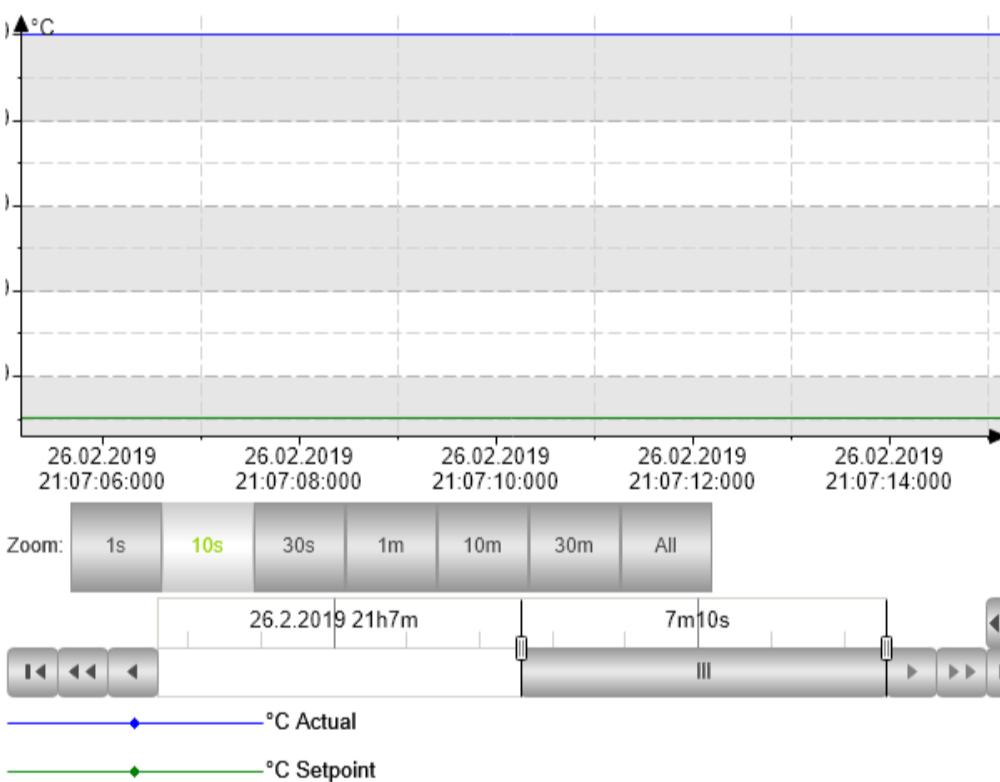
Here, the control parameters for the PID controller of the fans can be set.

KP	10.0	Proportional factor (Kp)
TN	20.0	Reset time (Tn)
TV	0.0	Retention time (Tv)
min	1.0	min
Max	950.0	Max



3. Controller fans frame

It is recommended to change the factory settings or the default values set by the Fliegl installation engineer only in consultation with the local heating engineer.



4.1 Heating pump controller



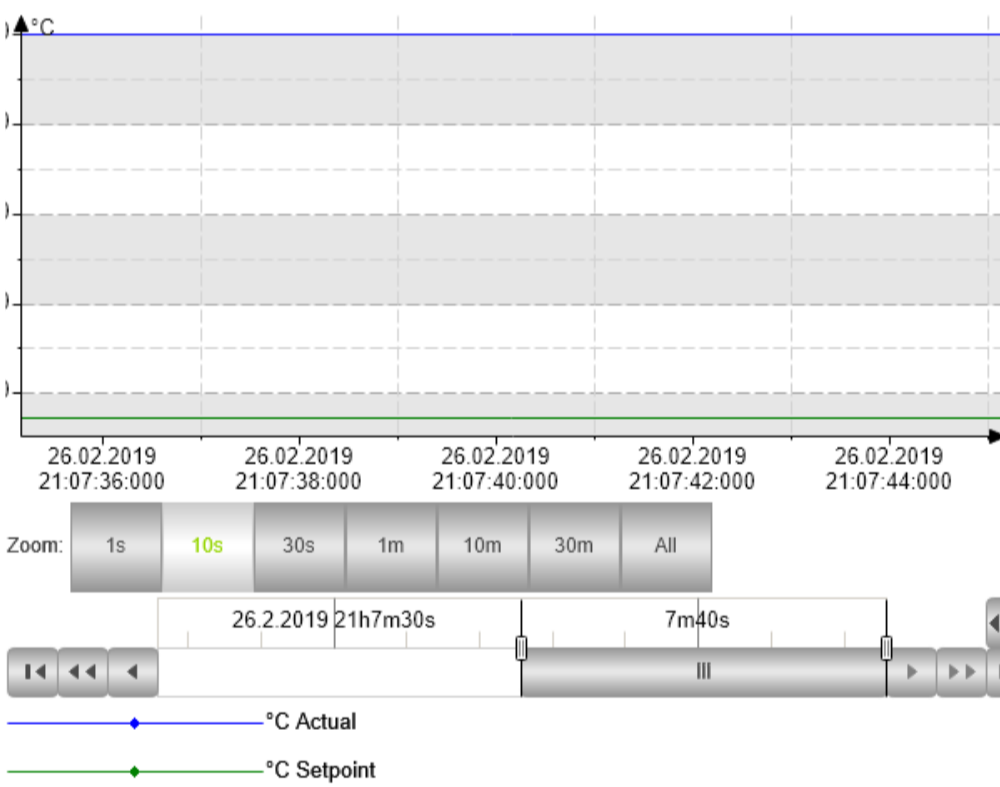
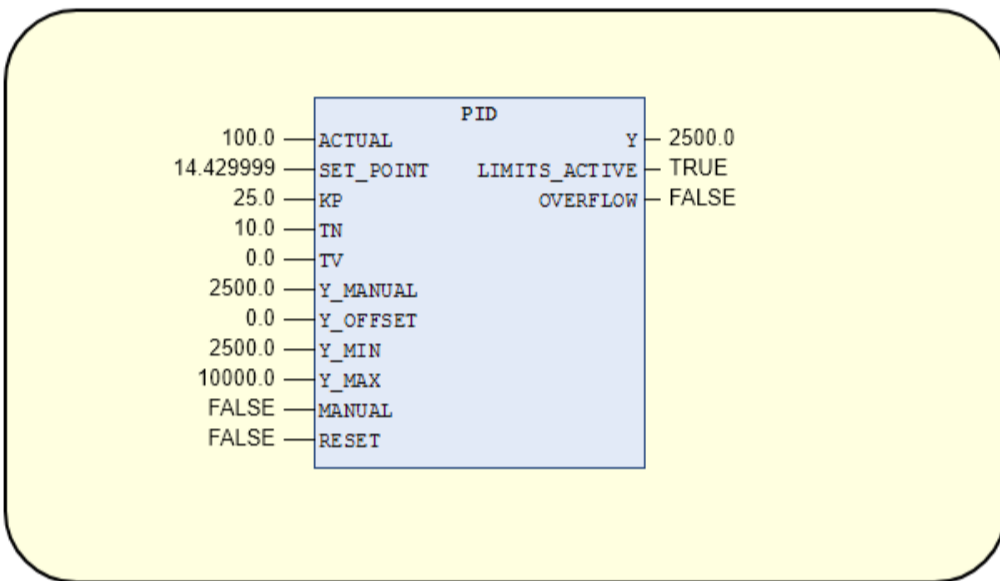
KP	25.0	Proportional factor (Kp)
TN	10.0	Reset time (Tn)
TV	0.0	Retention time (Tv)
min	25.0 %	min
Max	100.0 %	Max



4. Controller heating pump

Here, the control parameters for the PID controller of the heating circulating pump can be set.

KP	25.0	Proportional factor (Kp)
TN	10.0	Reset time (Tn)
TV	0.0	Retention time (Tv)
min	25.0 %	min
Max	100.0 %	Max



4. Controller heating pump frame

It is recommended to change the factory settings or the default values set by the Fliegl installation engineer only in consultation with the local heating engineer.

10. Temperature readings



Temperature is:	
Heat meter input	14.43 °C
Heat meter output	15.56 °C
feed air sensor PT100	8.00 °C
System return PT100	29.20 °C

10. Temperature readings

Shows the current ACTUAL measured values of the temperature sensors installed in the system.

11. Options



- Heat meters
- heat pump
- Air scrubber
- Libra
- Load cell 1
- Load cell 2
- Load cell 3
- Load cell 4

11. Options

Individual system components can be selected and deselected under the menu item "Options."
The load cells can be individually selected and deselected
To select or deselect one of the options, the gray field must be pressed to operate the touch display + select the boxes (operation via multitouch).
Should the operation be done with a mouse over a computer screen, the gray area can be permanently switched on via the switch I / O.

12. Set / load default values



Load defaults
F12345_AU-12345_PR-D12345678_Muster.ini

Reset default values
F12345_AU-12345_PR-D12345678_Muster_STD.ini

Load factory settings
reboot required

12. Set / load default value

The default values can be reset or loaded under this menu item. It is also possible to reset to the factory settings, this requires a reboot.

13. Language switching



english

english

en

13. Language switching

The operating language can be set under this menu item.

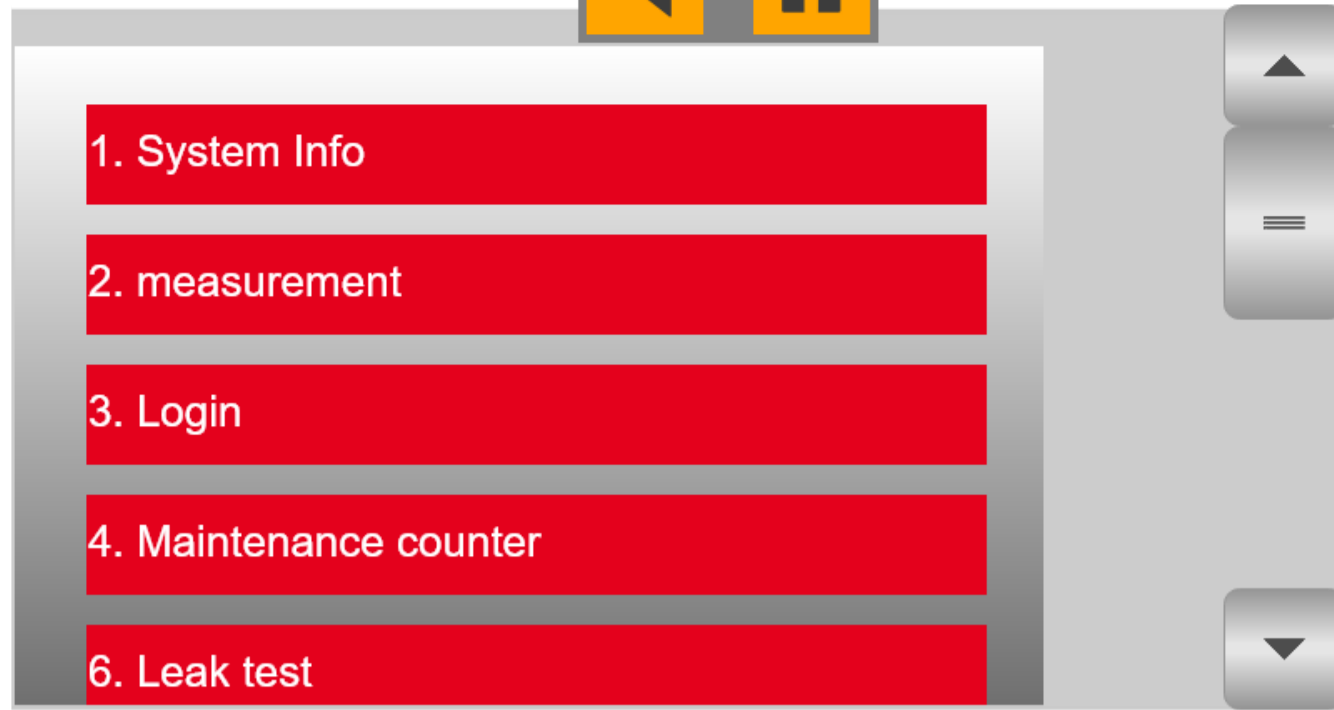
14. Other



0



14. Other



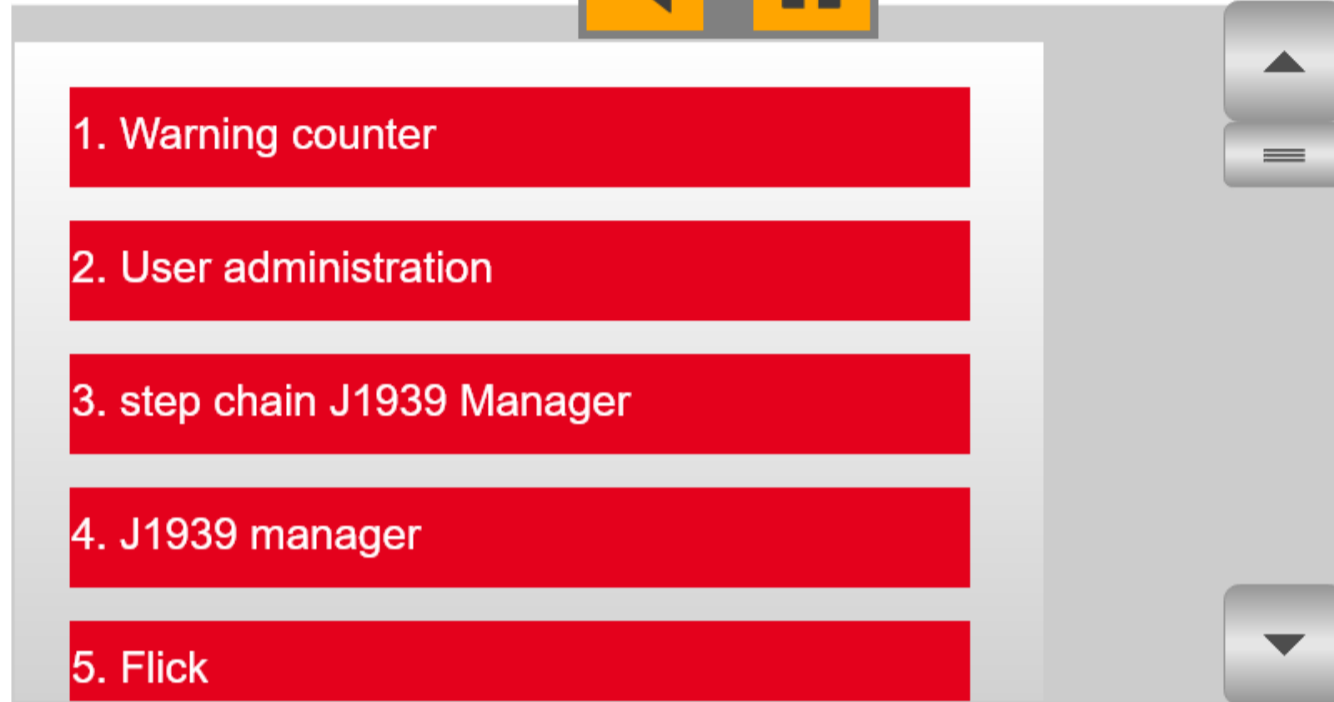
15. Functions



0



15. Functions



1. System Info

System time: 2019-02-26 21:23:29

project information

project name

Creation Date: 26.2.2019

Filename: DrySP14_JANZTEC_Vilsmeier.3

Chassis NR. F12345

Order number. AU-12345

Customer: Muster

Version: 1.0.0.0

The smallest revision of the working copy.
MINREVISION 25228

1. System Info

Under "System info" basic information about the drying system is stored.

2. measurement

constantly

Total weight:	5912 kg
Heat:	118.620 kWh

Measurement start Measurement stop reset

2. measurement

Under "Measurement" a measurement can be started during an evaporation step.

3. Login

User:

- 0 standard users
- 1 Master user
- 2 Administrator
- 3 Super administrator

Change user level

Current user level
0 standard users

3. Login

Under "Login" the user level can be changed by entering a password.

4. Maintenance counter

Hour meter		21d06:22:09	56	
Maintenance counter	1	21d06:22:09	56	reset
Maintenance counter	2	21d06:22:09	56	reset
Maintenance counter	3	21d06:22:09	56	reset
Maintenance counter	1	50d00:00:00	Maximum	
Maintenance counter	2	100d00:00:00	Maximum	
Maintenance counter	3	730d00:00:00	Maximum	

4. Maintenance counter

The "Maintenance counter" shows the elapsed time since the last reset.

The operating hours counter runs from the initial startup of the device (factory test).

The maintenance counters 1 - 3 can be used for maintenance, servicing and maintenance be set.

5. USB

acc 1	chgrp fliegl -R /media/sdcard/data/ ---	c 0	r 22
acc 2	chmod g+s -R /media/sdcard/data/ ---	c 0	r 22
acc 3	chmod 775 -R /media/sdcard/data/ ---	c 0	r 22

list files	clear	c 0	r 22
------------	-------	--------	---------

disk free	clear	c 0	r 22
-----------	-------	--------	---------

hostname	hostname ---	c 0	r 22
----------	-----------------	--------	---------

list drives	clear	c 0	r 22
-------------	-------	--------	---------

	POU_SplitArray.arr[INDEX]
1	---
2	---
3	---
4	---
5	---
6	---
7	---
8	---
9	---
10	---
11	---

mount

mount	mount ---	c 0	r 22
-------	--------------	--------	---------

USB stick can be removed.

acc1 rights Set if in settings 19. Path has been changed.

acc2 rights Set if in settings 19. Path has been changed.

List directory

Show free storage

Show host name

Describe USB stick:
ever in this order: Insert
stick
1. list drives
2. Select drive (USB stick)
3. mount
4. write
5. unmount
6. remove the stick

20. USB

The screenshot shows a user interface for USB management. At the top, there are navigation buttons: a back arrow, a home icon, and a battery level indicator (0). The Fliegl logo is in the top right corner. Below the navigation is a list of actions:

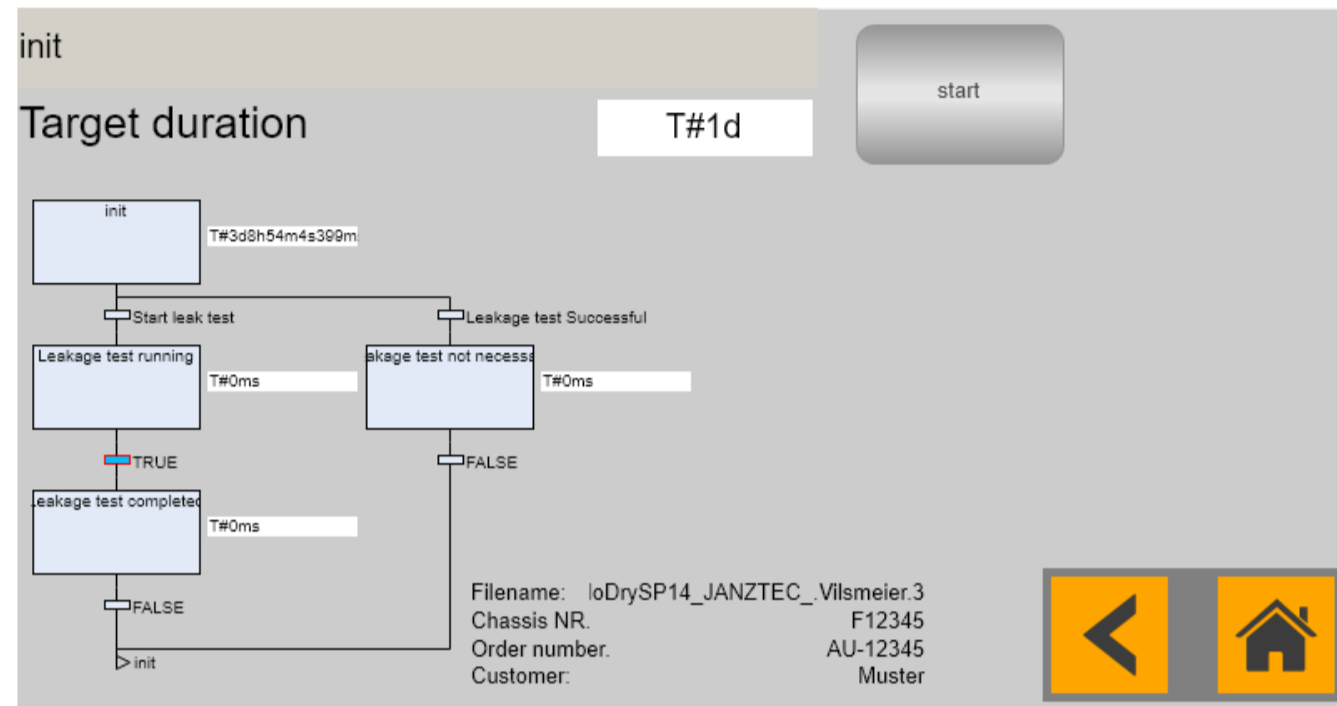
acc 1	chgrp fliegl -R /media/sdcard/data/ ---	c 0	r 22
acc 2	chmod g+s -R /media/sdcard/data/ ---	c 0	r 22
acc 3	chmod 775 -R /media/sdcard/data/ ---	c 0	r 22

Below this list are buttons for 'list files' and 'clear', followed by a table with 'c' and '0' in the first column, and 'r' and '22' in the second column. At the bottom, there is a status message: 'USB stick can be removed.'

6. Leak test



6. Leak test



A leak test can be carried out under "Tightness test."
The tightness test is carried out at the factory.

1. Warning counter



Error	Level max reached	filling	<input type="text" value="0"/>	<input type="text"/>
Error	Time reached	filling	<input type="text" value="0"/>	<input type="text"/>
Error	Level max reached	Drying	<input type="text" value="0"/>	<input type="text"/>
Error	Time reached	Drying	<input type="text" value="0"/>	<input type="text"/>
Error	Level max reached	emptying	<input type="text" value="0"/>	<input type="text"/>
Error	Time reached	emptying	<input type="text" value="0"/>	<input type="text"/>

1. Warning counter

The alarm counter counts the accumulated warnings. Where 6 alarms have occurred, a single alarm can be acknowledged and the alarm counter is reset.

The various warnings listed under the alarm counter are intended to alert the operator that he is causing the problem. Check for the warnings, especially if they lead to a "Counter-Alarm" (alarm after 6 warnings as described above).

2. User administration



Log In

Sign out

Change Password

Current username

Current user level
0

2. User administration

User Management is not used at the moment.

3. step chain J1939 Manager



SFCInit	SFCErrorStep:	SFCTrans
SFCReset	SFCErrorPOU:	SFCtip
SFCError	SFCQuitError	SFCtipMode
SFCEnableLimit	SFCPause	

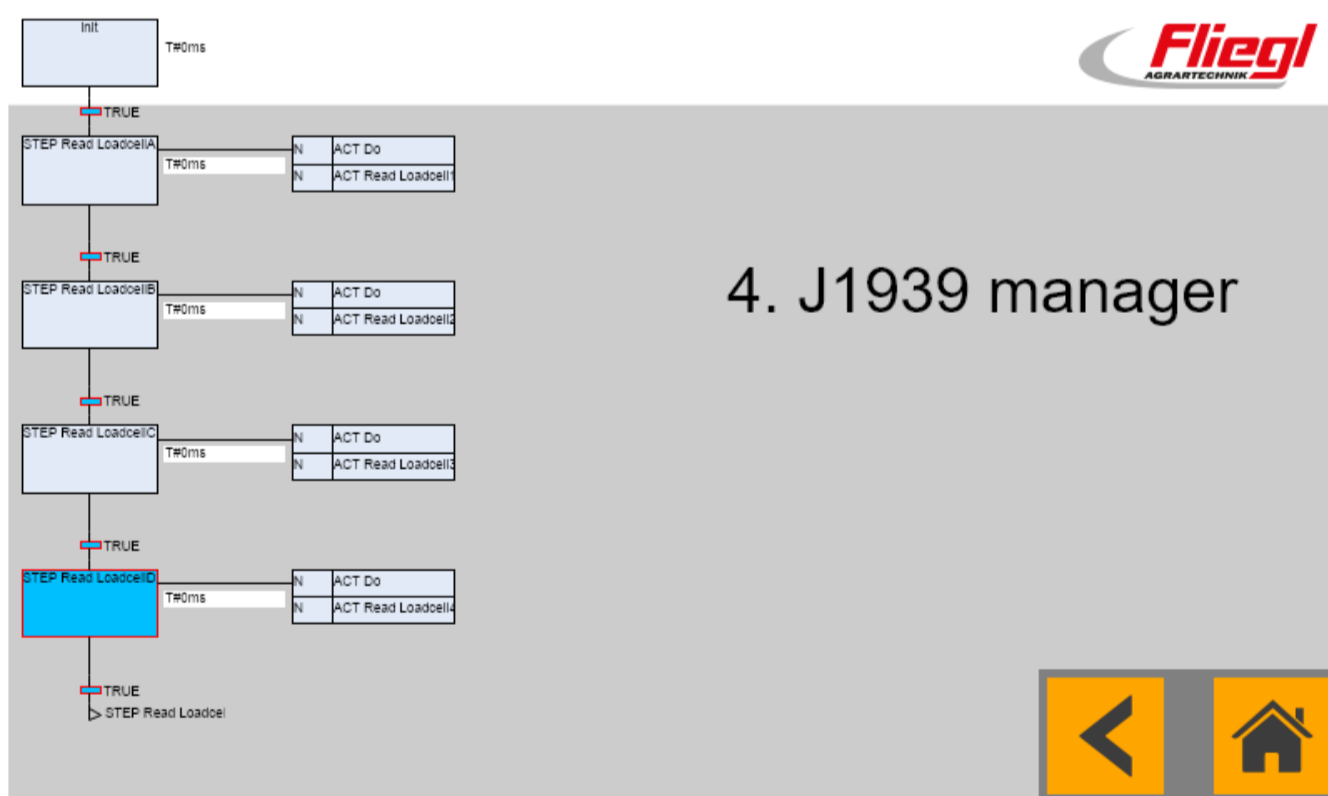
SFCCurrentStep.ID_6329_STEP_Read_LoadcellID

SFCCurrentStepTranslated: STEP Read LoadcellB

STEP Read LoadcellB

3. step chain J1939 Manag

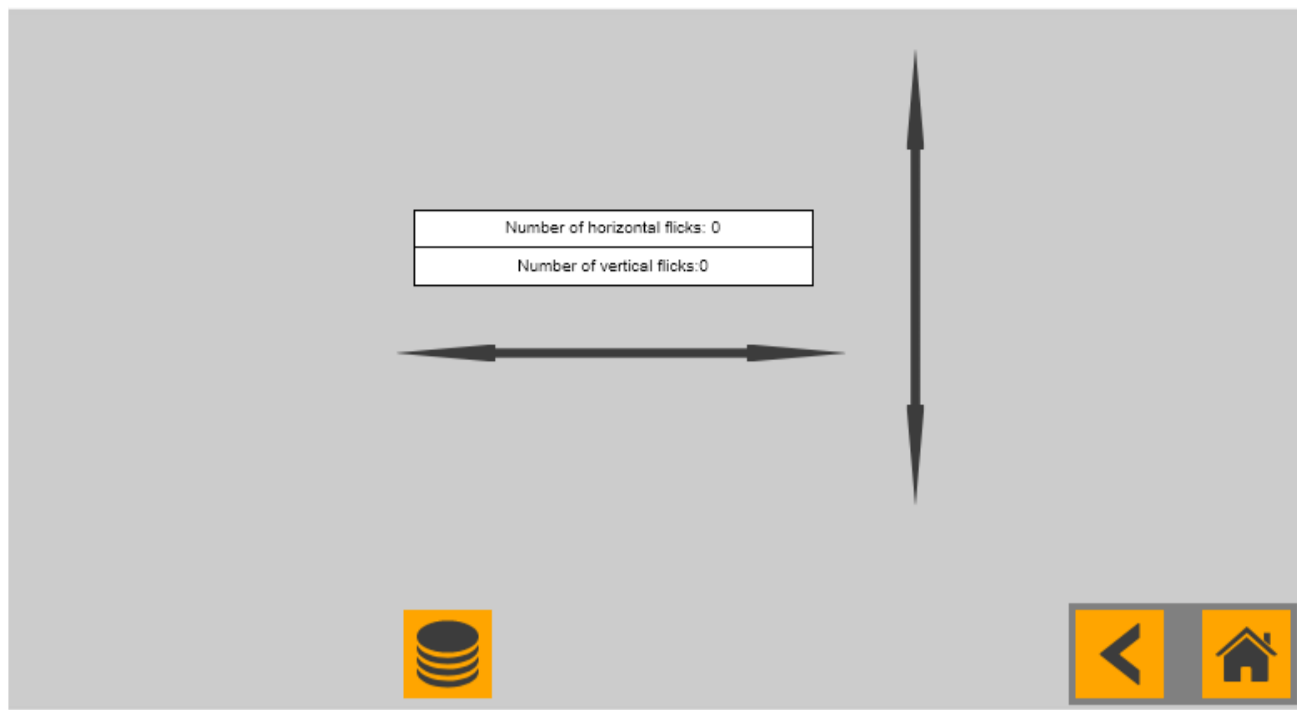
Used to control the load cells. Is not relevant for the operator.



4. J1939 manager

Used to control the load cells. Is not relevant for the operator.

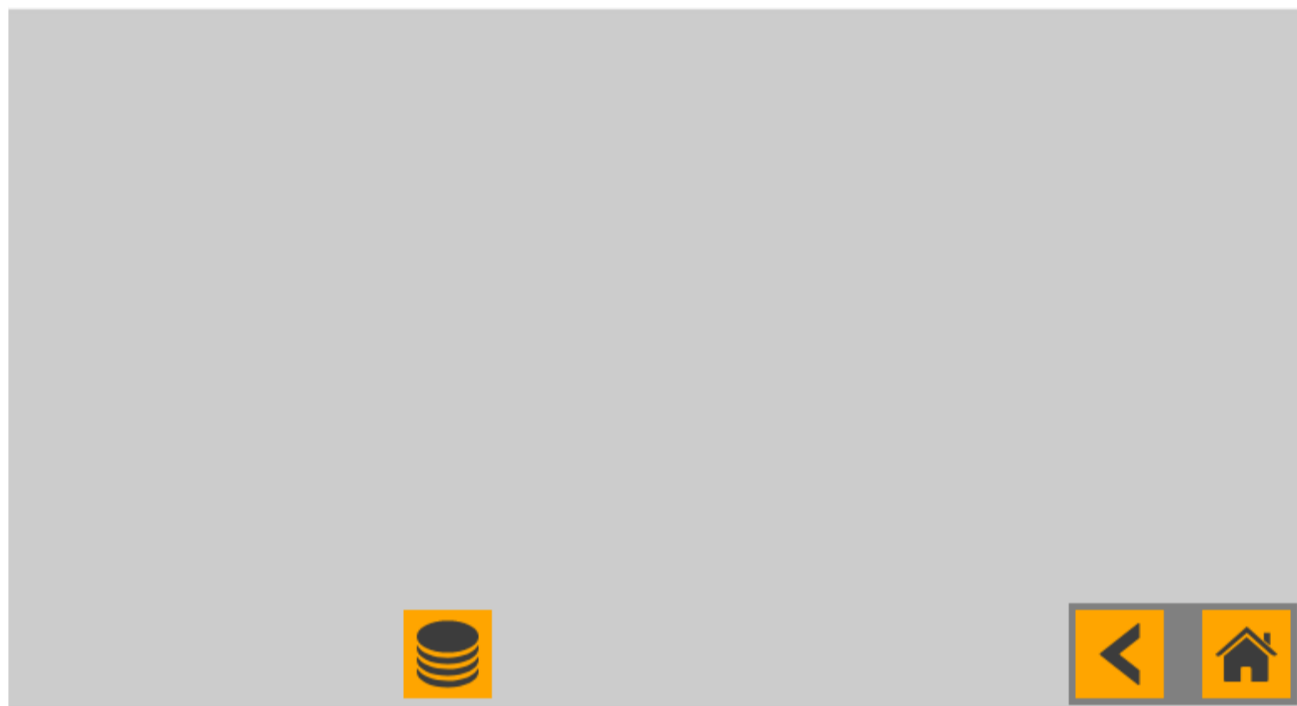
5. Flick



5. Flick

Under "Flick" a functional test of the touch panel can be carried out.

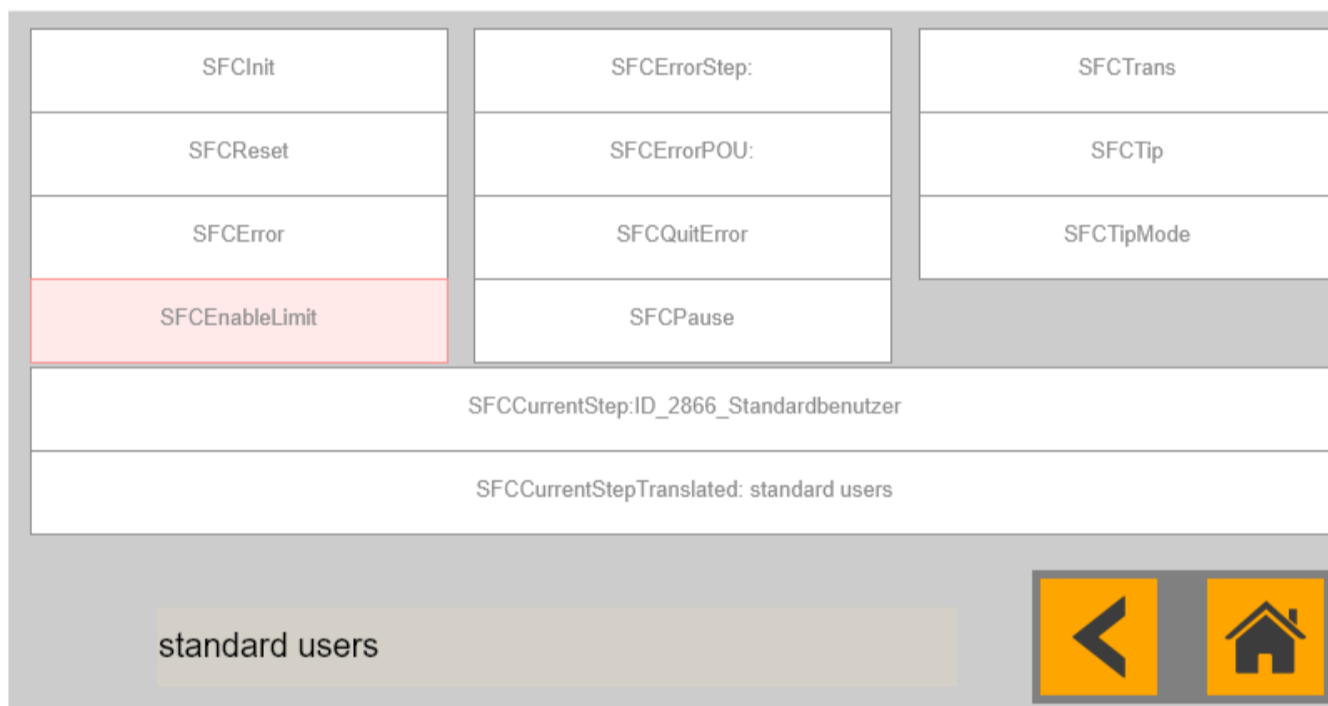
6. Touches



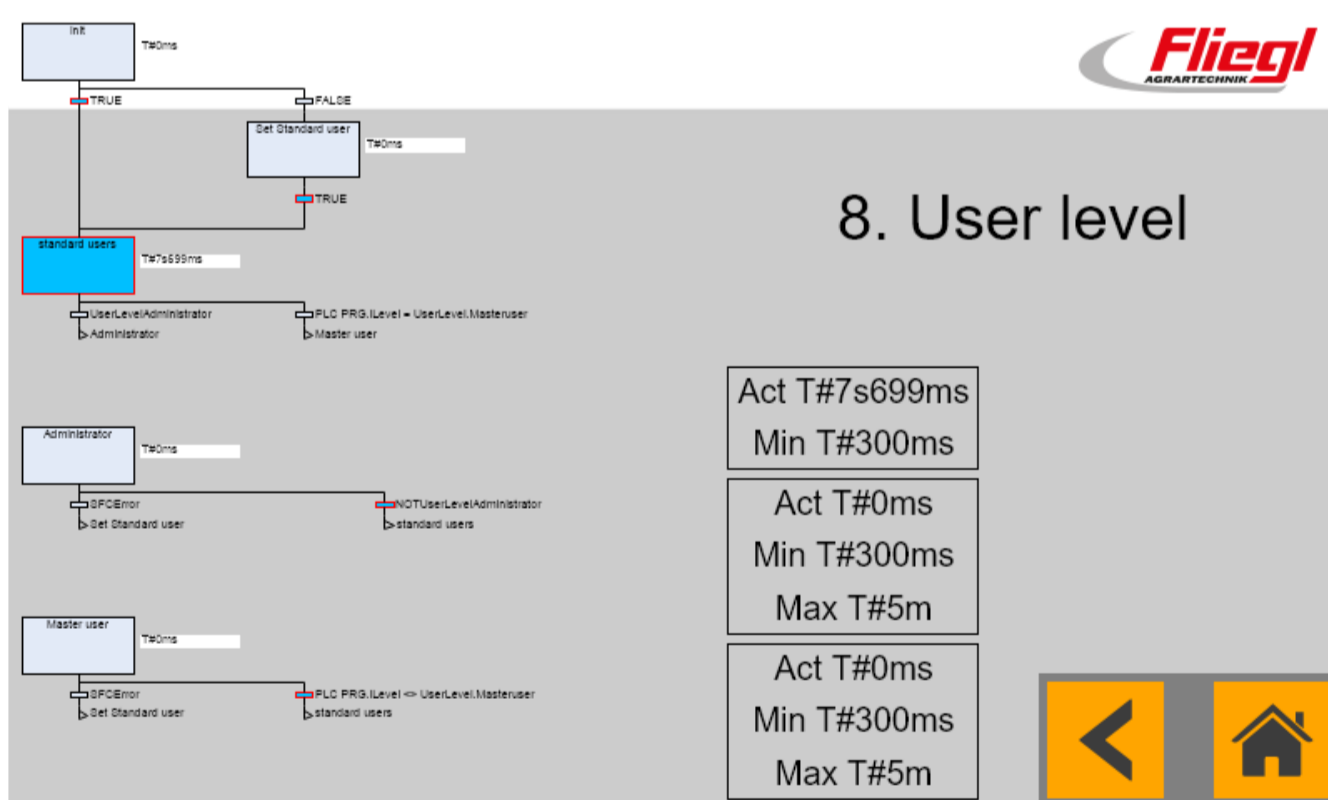
6. Touches

Under "Touches" a functional test of the touch panel can be carried out.

7. step user level



7. step user level



8. User level

Userlevel shows the currently used userlevel and the remaining time.

9. inputs

0



9. inputs

Displays the occupied inputs.

10. sequence blinker



10. sequence blinker

11. blinker



11. blinker

Visualization of the lamp on the control cabinet. Fault lamp.

Blink rhythm:

1s ON / 1s OFF: Emergency operation

Leed (permanently ON): FAULT or PLANT STOP

3s ON / 3s OFF: \$Pending pending

Temporary OFF: \$T No warning, no fault

12. sequence expiration



SFCInit	SFCErrorStep:	SFCTrans
SFCReset	SFCErrorPOU:	SFCtip
SFCError	SFCQuitError	SFCtipMode
SFCEnableLimit	SFCPause	
SFCCurrentStep:ID_11_Aus		
SFCCurrentStepTranslated: Off		
Off		

12. sequence expiration

Allows the user to intervene in the sequencer's flow.

For more information, see:

<https://help.codesys.com/webapp/cds/sfc/sfc/flags;product=codesys;version=3.5.13.0>

13. Sequence operating mode



SFCInit	SFCErrorStep:	SFCTrans
SFCReset	SFCErrorPOU:	SFCtip
SFCError	SFCQuitError	SFCtipMode
SFCEnableLimit	SFCPause	
SFCCurrentStep:		
SFCCurrentStepTranslated: init		
init		

13. Sequence operating mode

Allows the user to intervene in the sequencer's flow.

For more information, see:

<https://help.codesys.com/webapp/cds/sfc/sfc/flags;product=codesys;version=3.5.13.0>

Available features for the active device



<ul style="list-style-type: none"> Diagnosis WebVisa RemoteVisuClient SoftMotion <ul style="list-style-type: none"> Basic CNC Light CNC restricted FDT CANopen <ul style="list-style-type: none"> Slave Master EtherCAT <ul style="list-style-type: none"> EL6731 Master EL6631 Master EL6731-0010 Slave EL6631-0010 Device Modbus TCP <ul style="list-style-type: none"> Slave Master Modbus Serial <ul style="list-style-type: none"> Slave Master Single Device License <ul style="list-style-type: none"> Dongle Softcontainer 	<ul style="list-style-type: none"> Serial II <ul style="list-style-type: none"> Slave Master Profibus <ul style="list-style-type: none"> Slave Master PROFINET <ul style="list-style-type: none"> Device (CIPX) Controller (CIPX) Device (IEC) Controller (IEC) Ethernet/IP <ul style="list-style-type: none"> Adapter Scanner (CIPX) Scanner (IEC) DeviceNET <ul style="list-style-type: none"> Slave Master Redundancy <ul style="list-style-type: none"> J1939 EL6900 C-Link ECOS 1850 Server SACnet SNMP OPC UA C-Integration
--	--

14. Device Reader

Represents the unlocked licenses. Green = License unlocked.

S report State active Inactive Approved

max 0

0 Inverter reset alarms quit history

alarms

S report State active Inactive Approved

max 0

Active alarms (all) = 0	
Active Alarms (All Error) = 0	Active Alarms (All Warning) = 0
Active alarms (Error) = 0	Active alarms (Warning) = 0
Active alarms (Error ACK) = 0	Active Alarms (WarningSFC) = 0
Active alarms (ErrorSFC) = 0	Active alarms (WarningStart conditionsSFC) = 0

0 Inverter reset alarms quit history

Alarms detail

Time how many alarms per group are active.

S	report	State	active	Inactive	Approved
0	✓ Fault inverter drum	Normal	26.02.2019 21:19:55	26.02.2019 21:20:04	26.02.2019 21:20:05
1	✓ Fault i550 Ethercat	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
2	✓ overfill protection	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
3	✓ Fault EL2008 PLC6	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
4	✓ Fault EL2008 SPS7	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
5	✓ Fault EL3202 SPS8	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
6	✓ Fault EL1008 PLC4	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
7	✓ Fault EL1008 SPS5	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
8	✓ Fault EK1100 PLC2	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
9	✓ Fault EL1008 PLC3	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
10	✓ Emergency stop	Normal	26.02.2019 21:19:41	26.02.2019 21:19:45	
11	✗ Undertemperature limit	Normal	26.02.2019 09:39:01	26.02.2019 09:39:57	

0 max 200

Alarms history

18. sequence leak test



SFCInit	SFCErrorStep:	SFCTrans
SFCReset	SFCErrorPOU:	SFCtip
SFCError	SFCQuitError	SFCtipMode
SFCEnableLimit	SFCPause	
SFCCurrentStep:		
SFCCurrentStepTranslated: init		

init

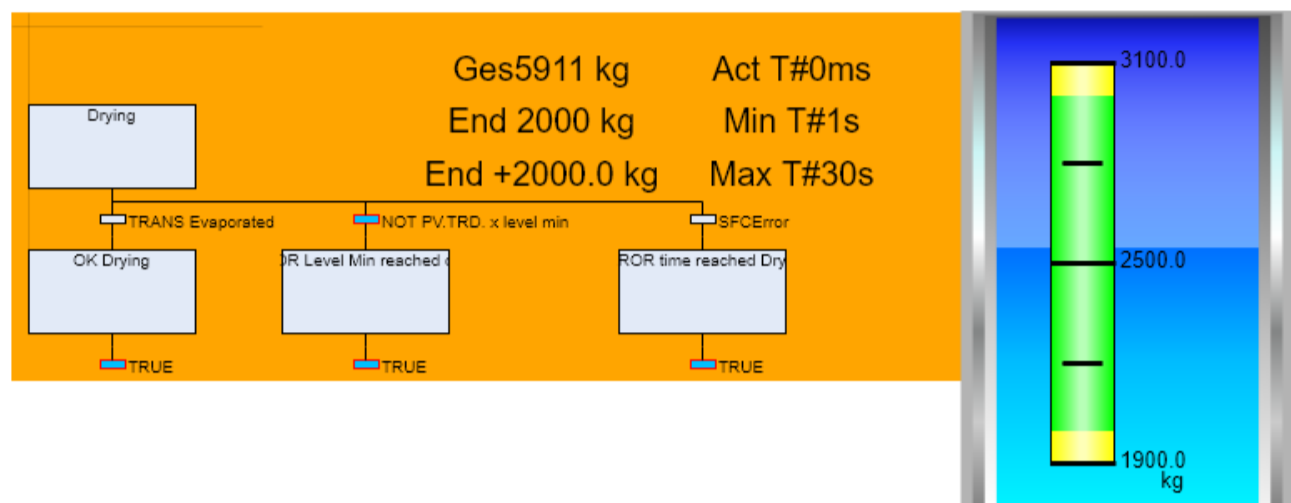
18. sequence leak test



Filling

Shows graphically whether there is an error in the step sequence
 This shows the weight, the elapsed time and the minimum and maximum time.

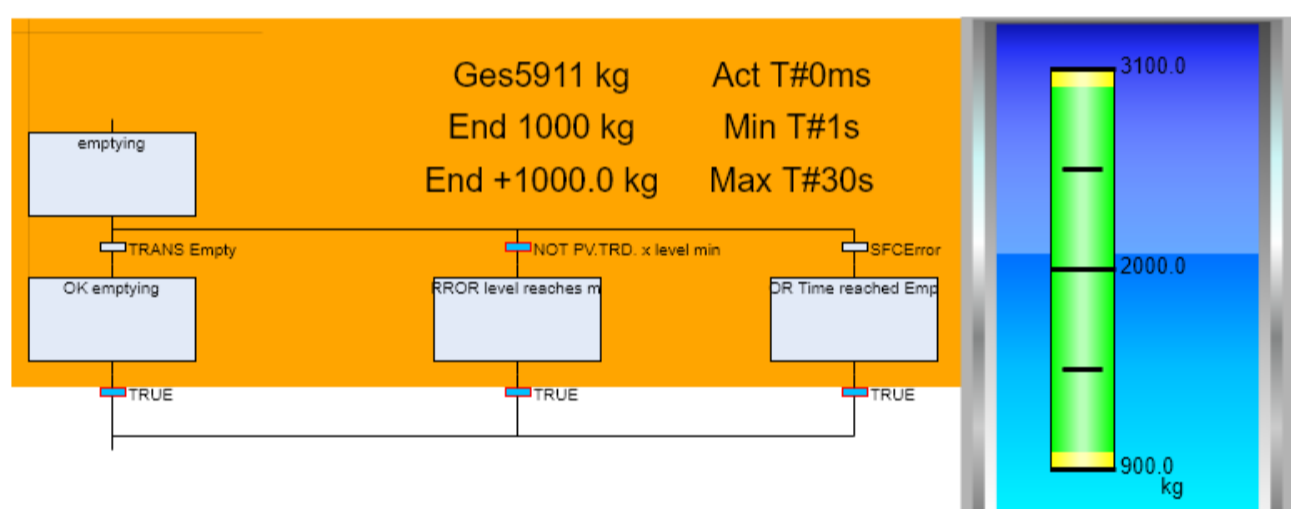
ext is a graphic representation of the filling quantity



Drying

Shows graphically whether there is an error in the step sequence
 This shows the weight, the elapsed time and the minimum and maximum time.

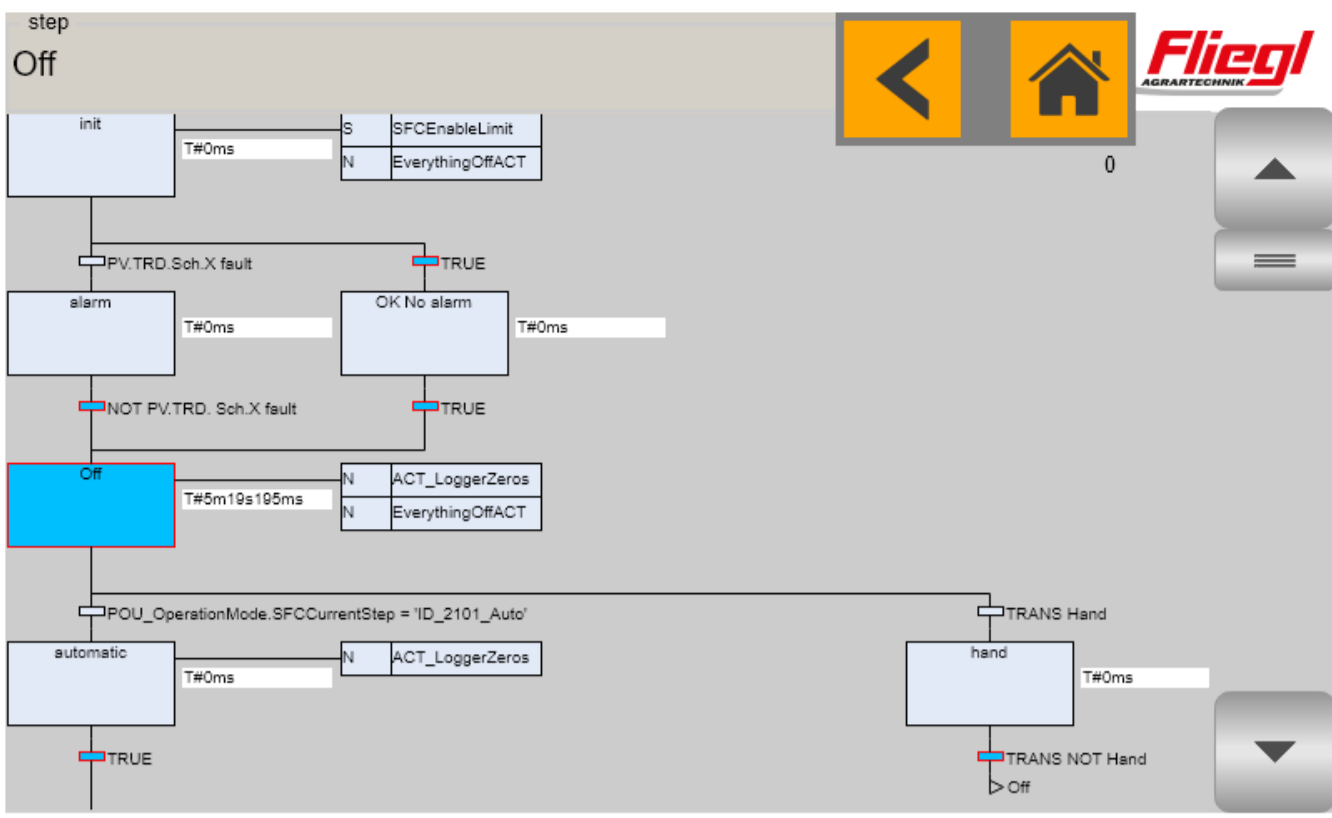
ext is a graphic representation of the filling quantity



emptying

Shows graphically whether there is an error in the step sequence
 This shows the weight, the elapsed time and the minimum and maximum time.

ext is a graphic representation of the filling quantity

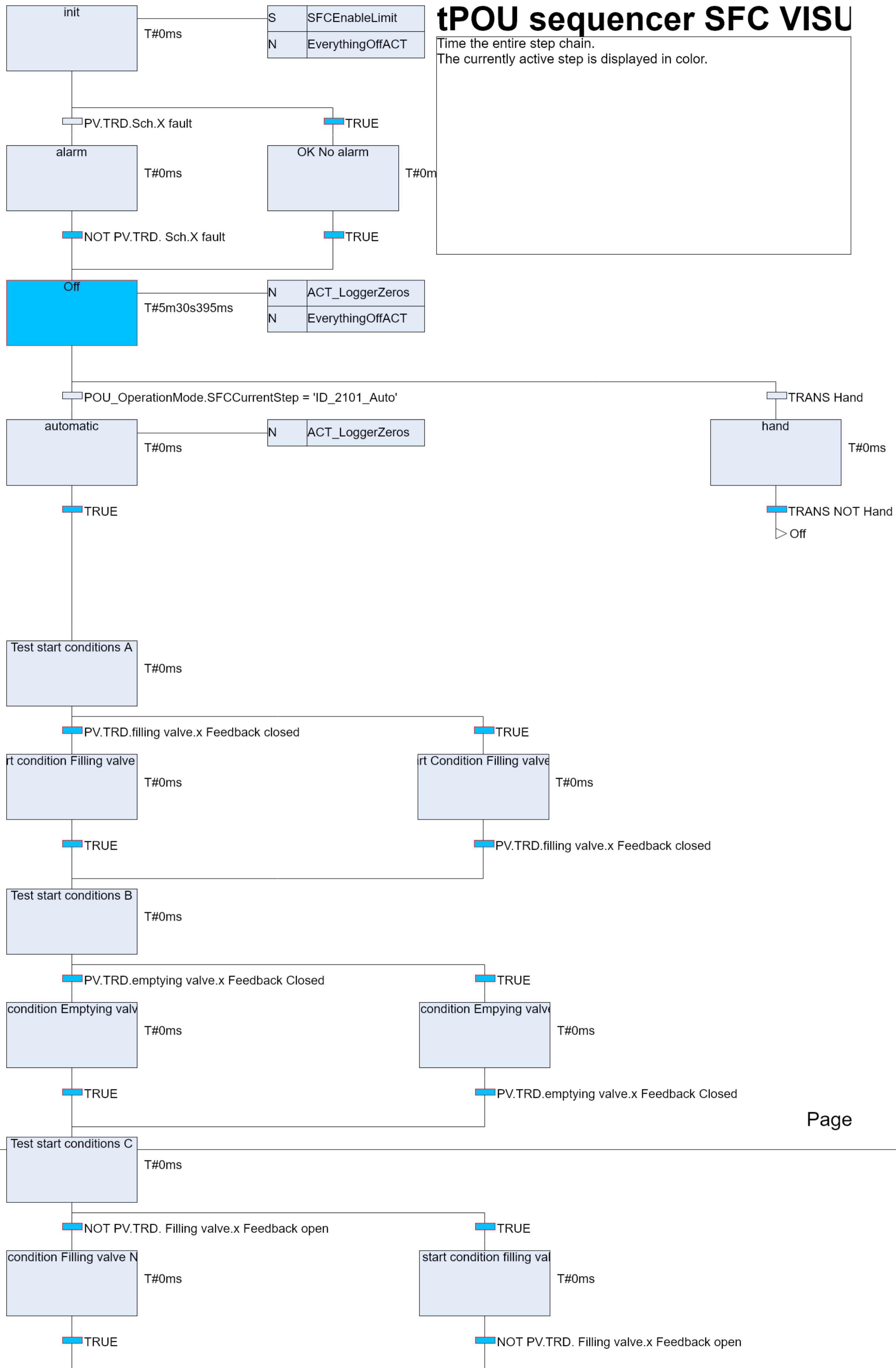


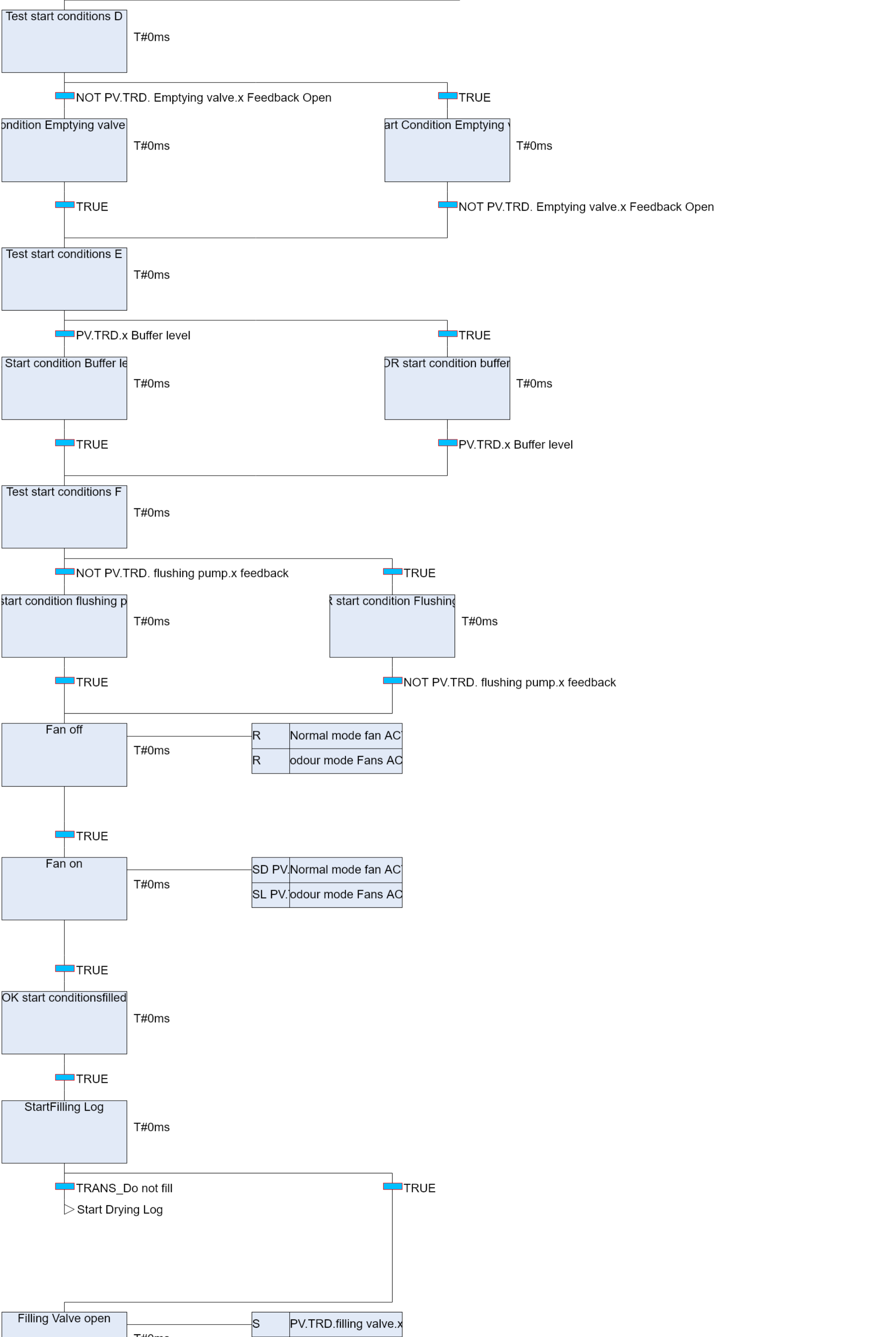
step

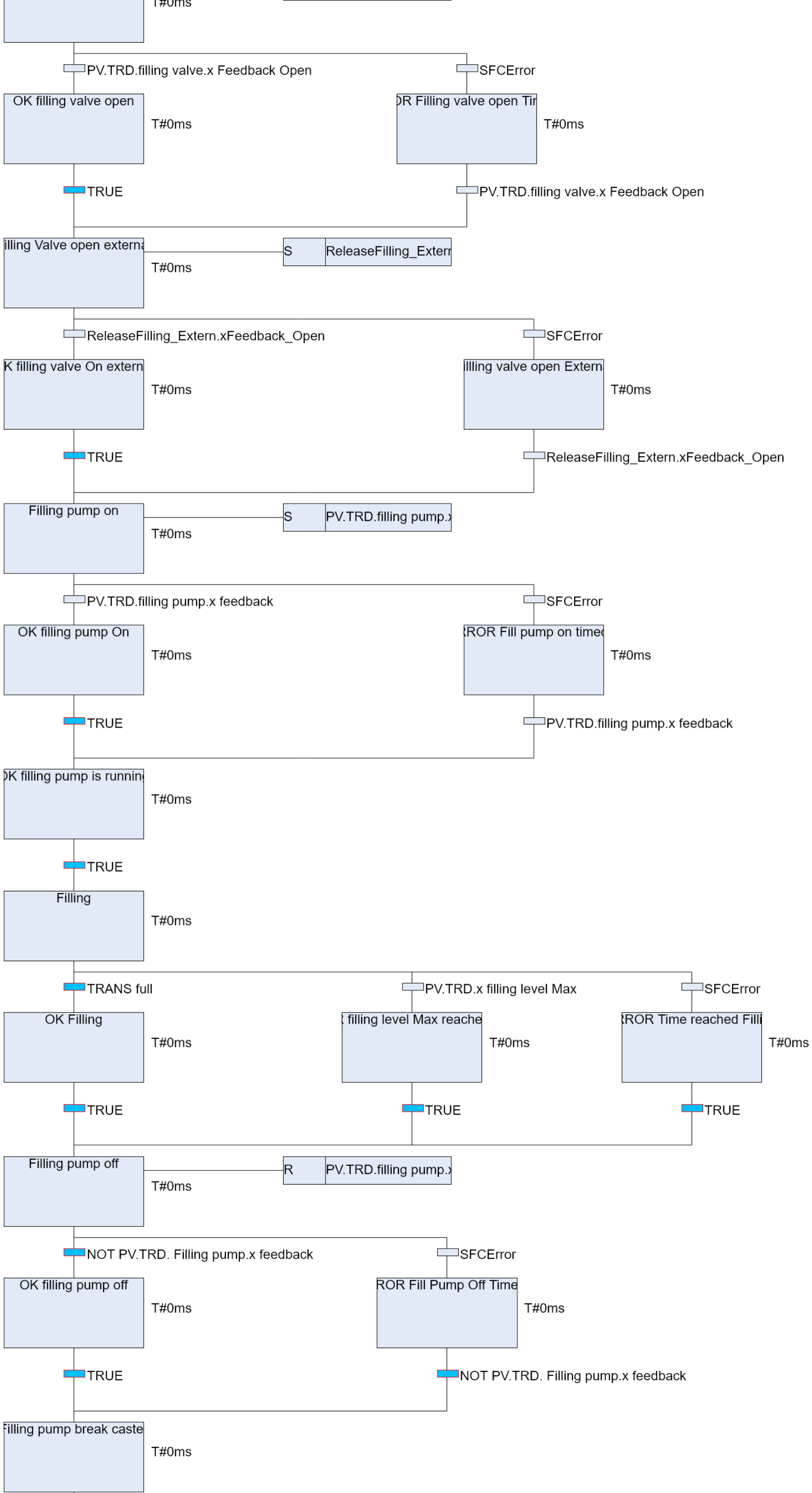
Time the entire step chain.
The currently active step is displayed in color. Under points 2 and 3, the sub-steps evaporation and flushing are accessible, below 1, the total chain erreichbar.

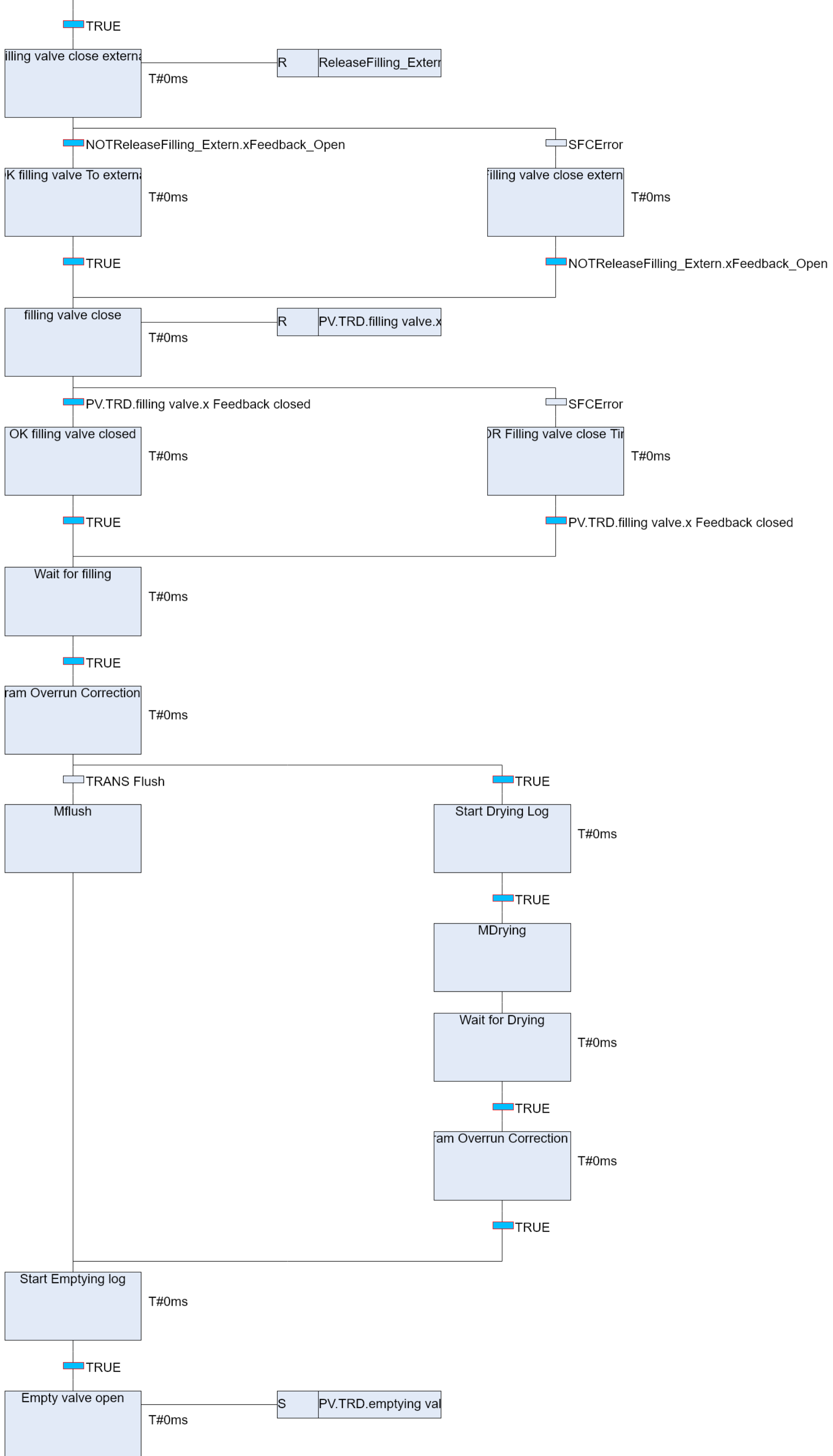
tPOU sequencer SFC VISU

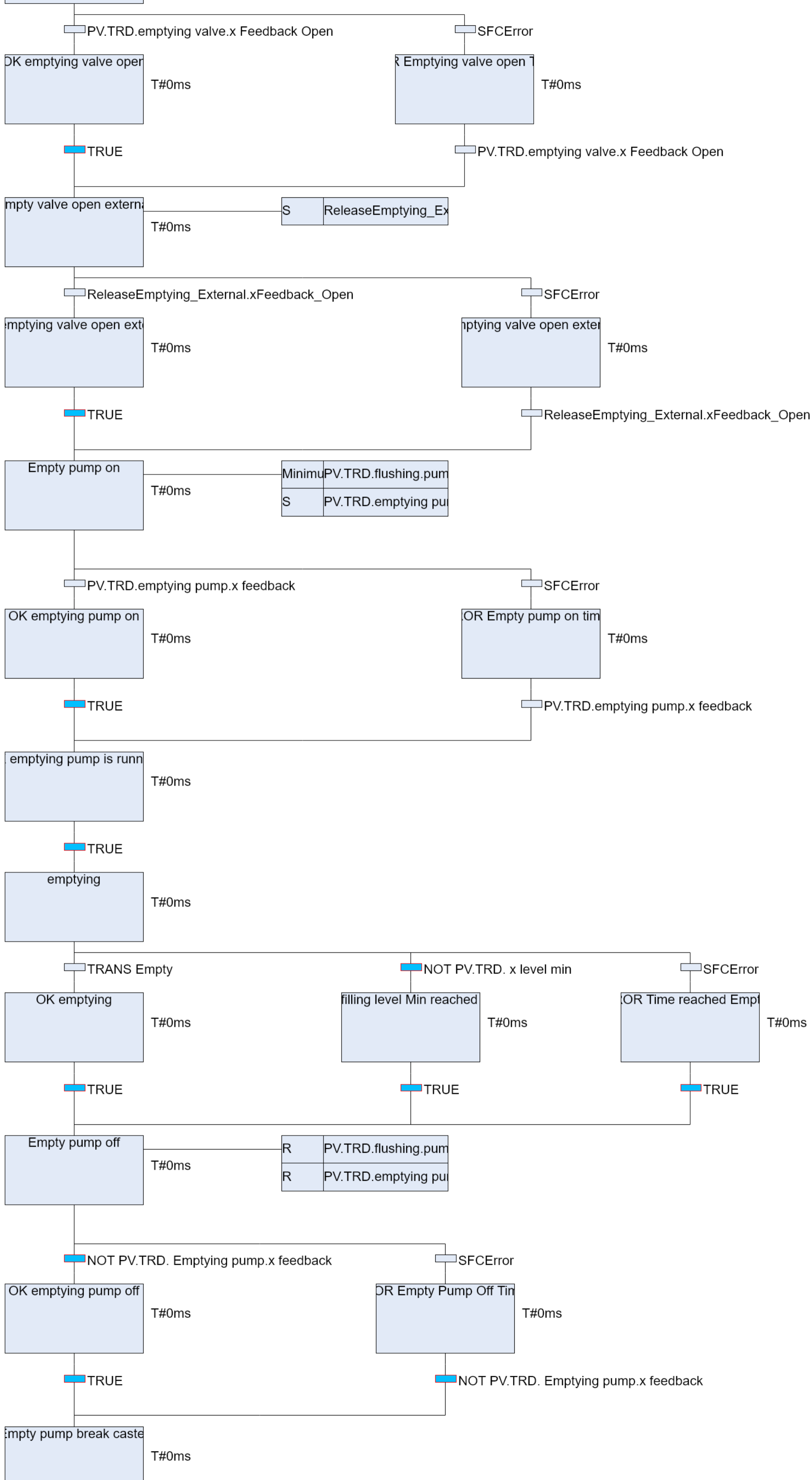
Time the entire step chain.
The currently active step is displayed in color.

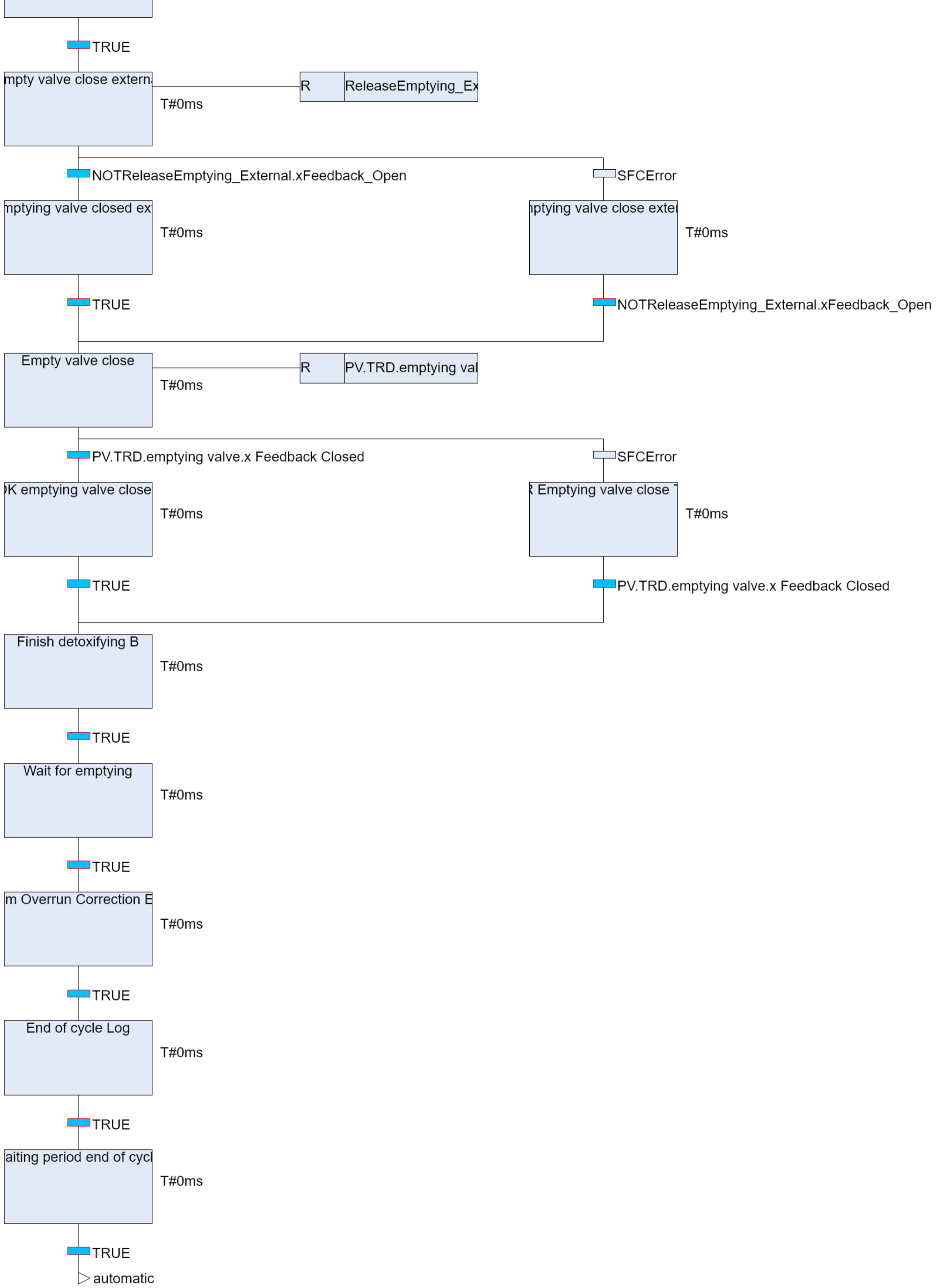






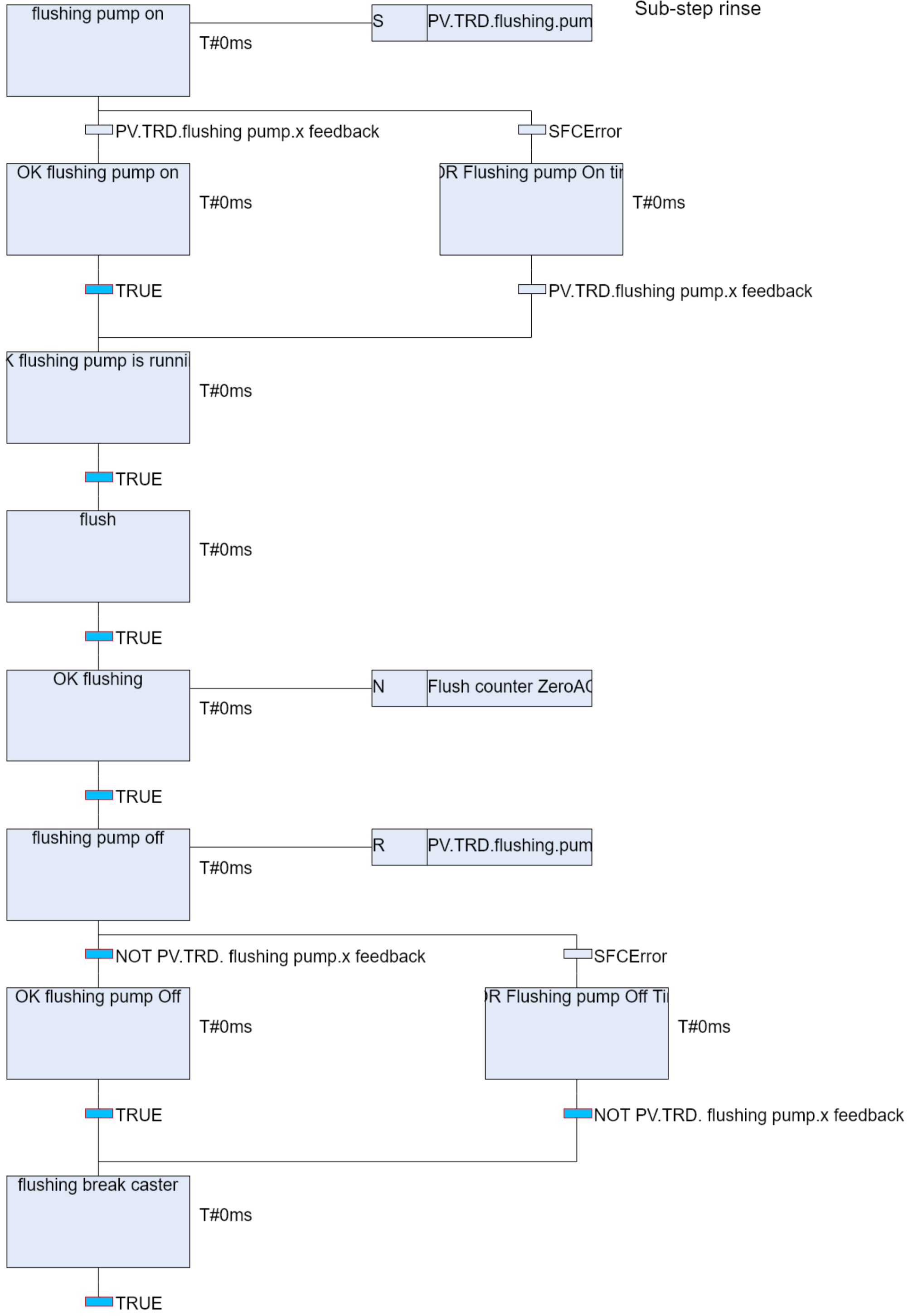


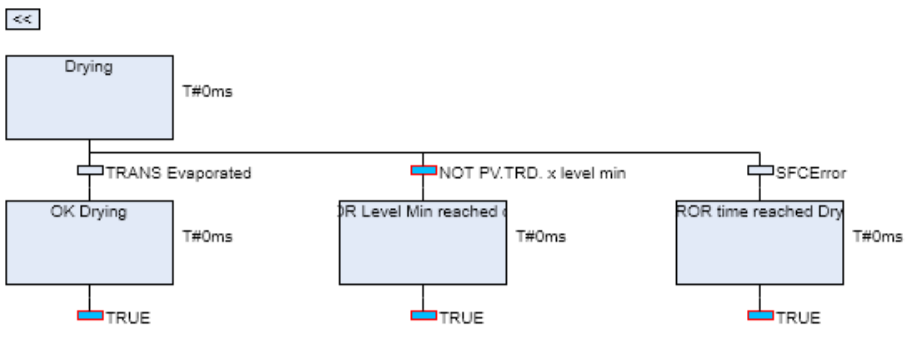




Mflush

Sub-step rinse





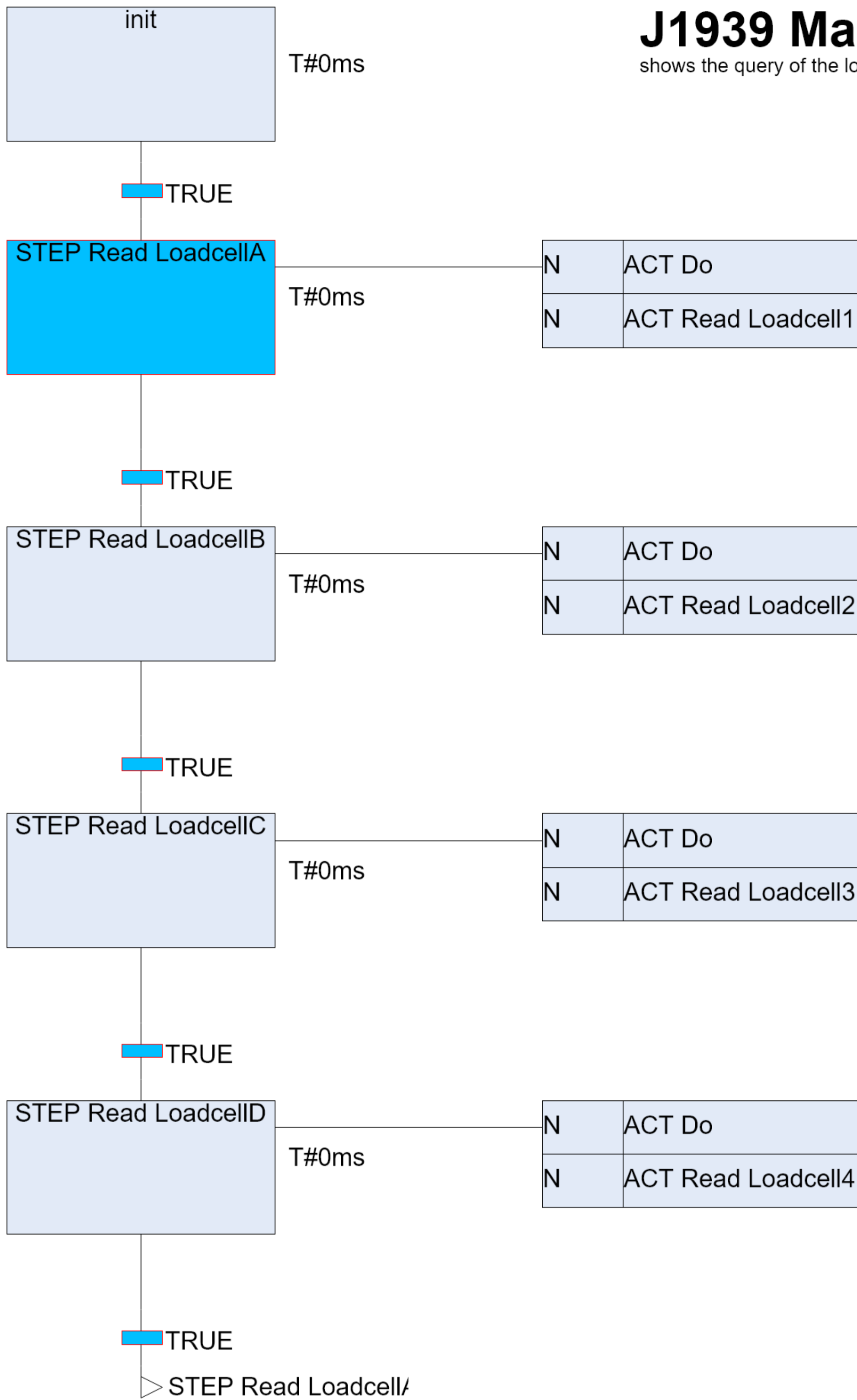
Drying

Sub-step evaporation



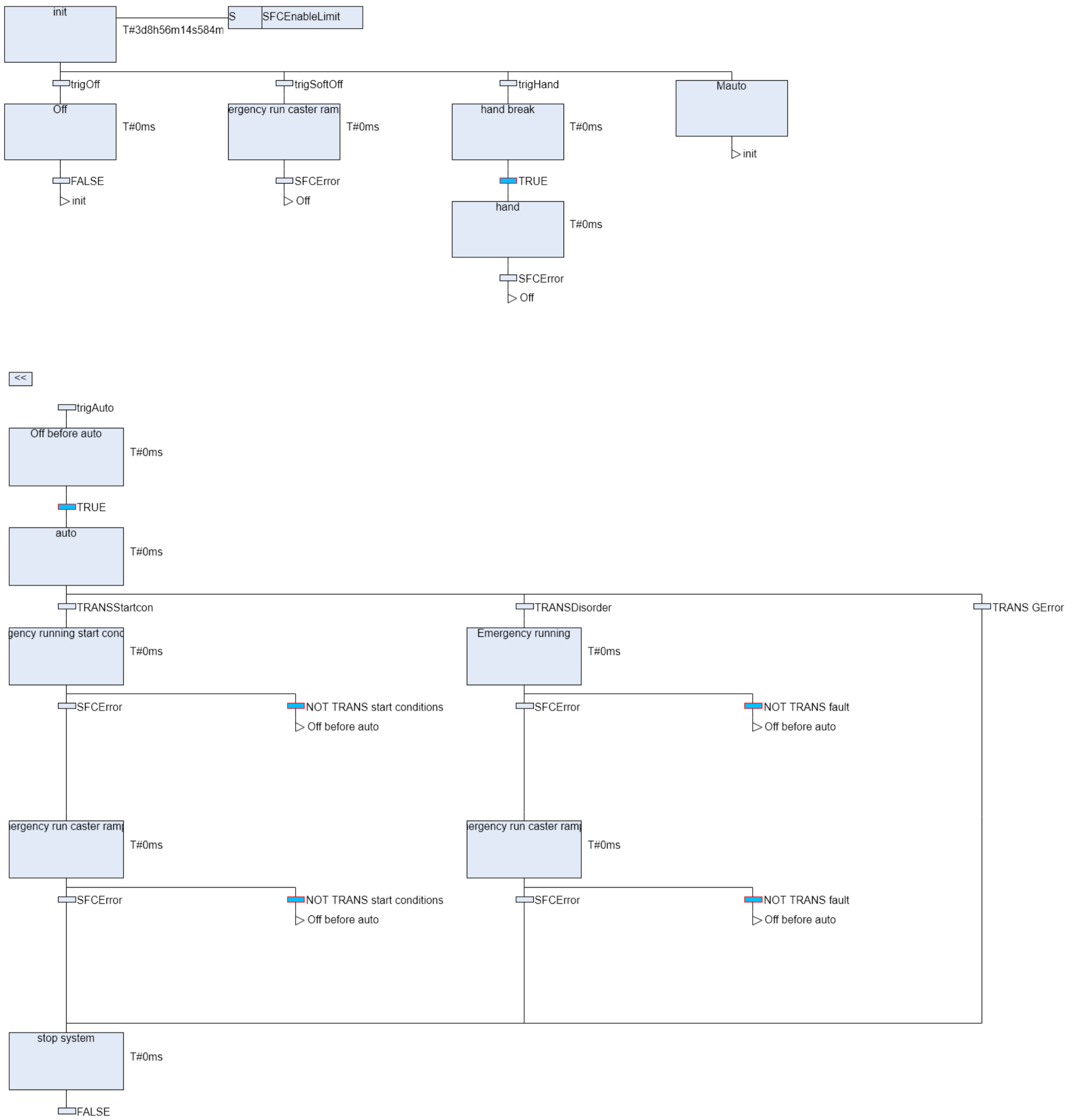
J1939 Manager Request S

shows the query of the load cells in succession



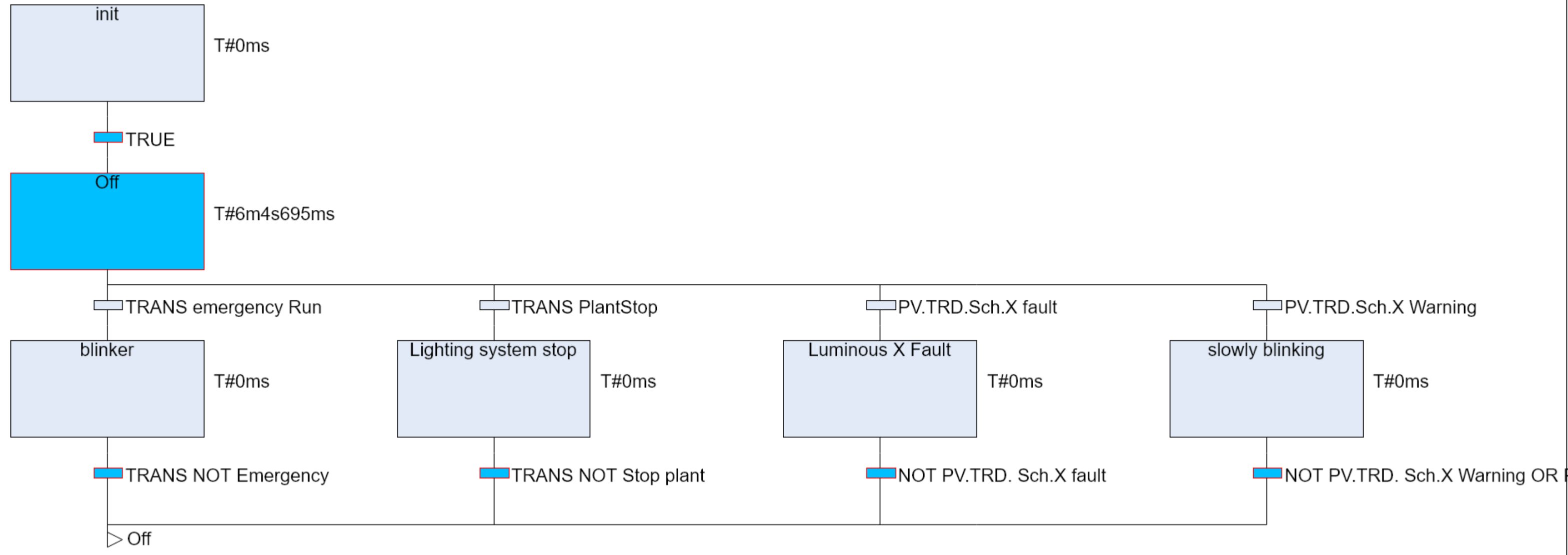
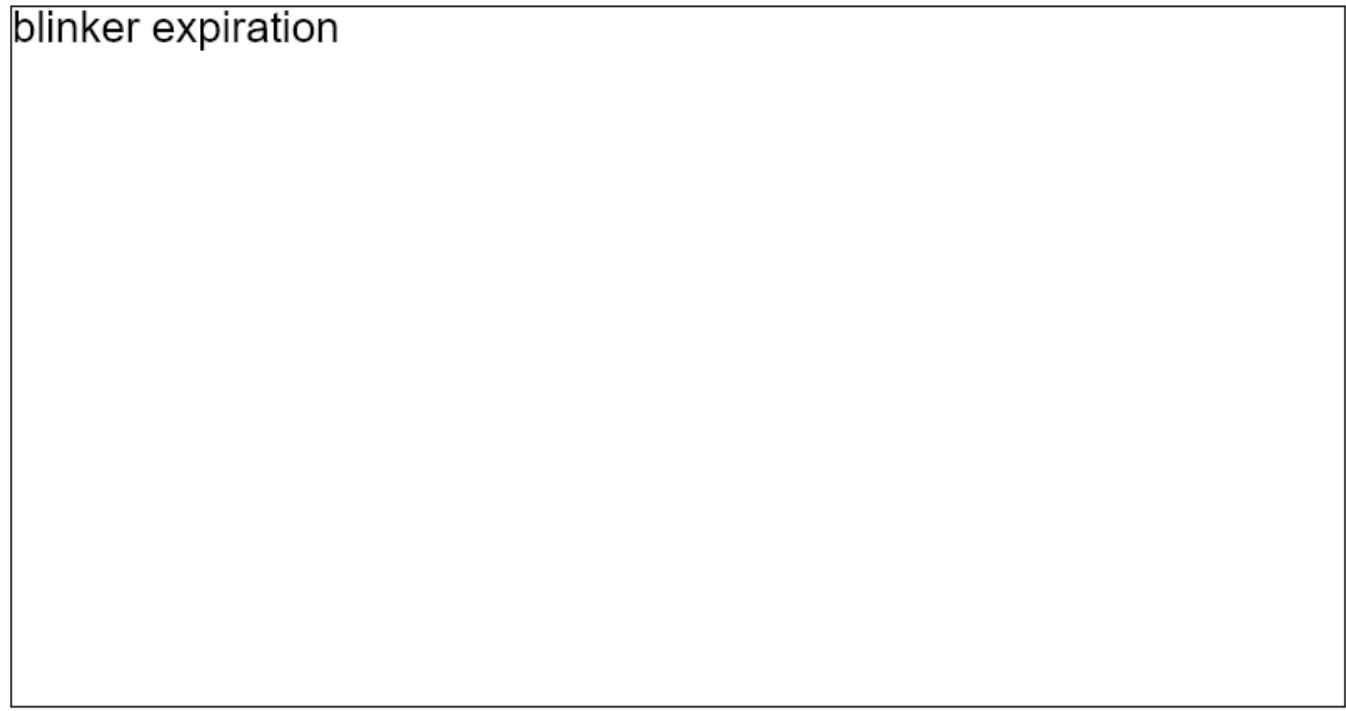
operation mode

Run of the operating mode including emergency operation.



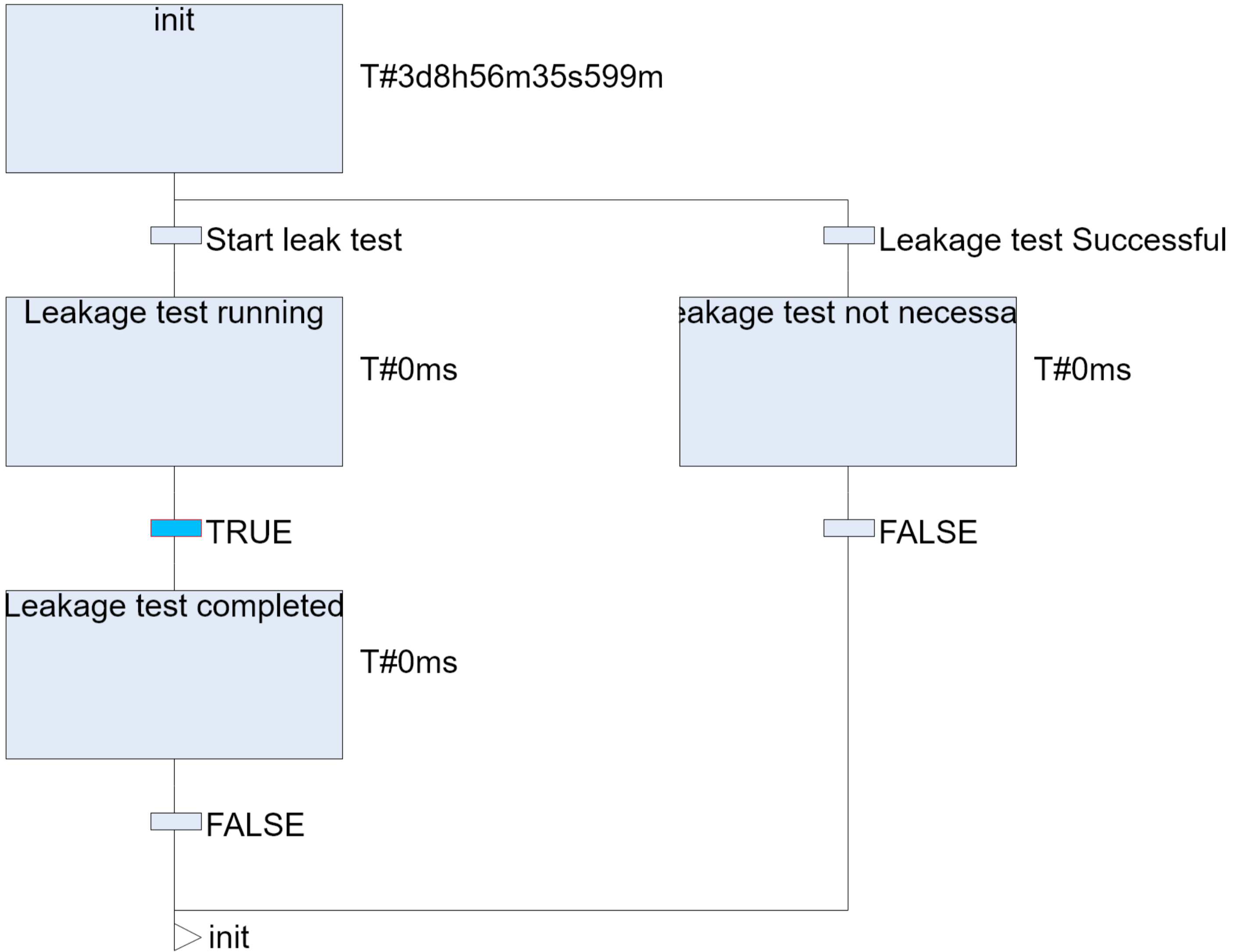
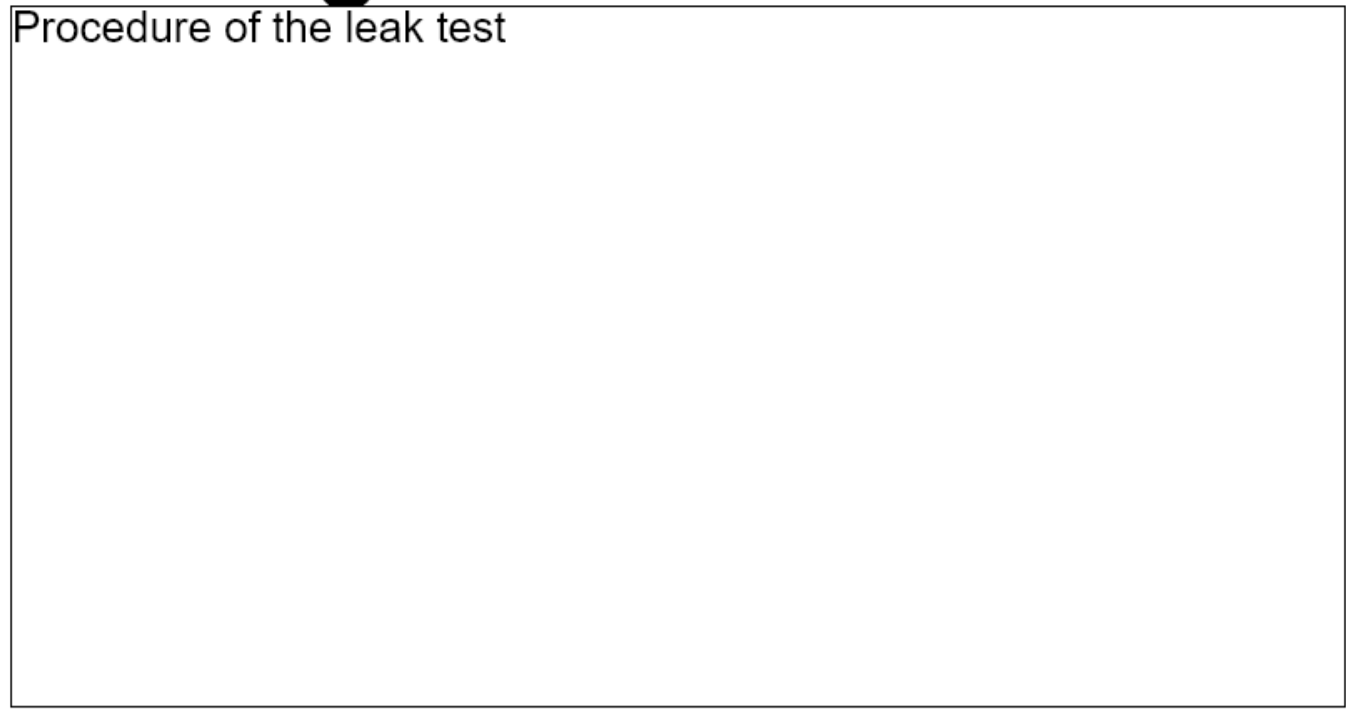
blinker

blinker expiration



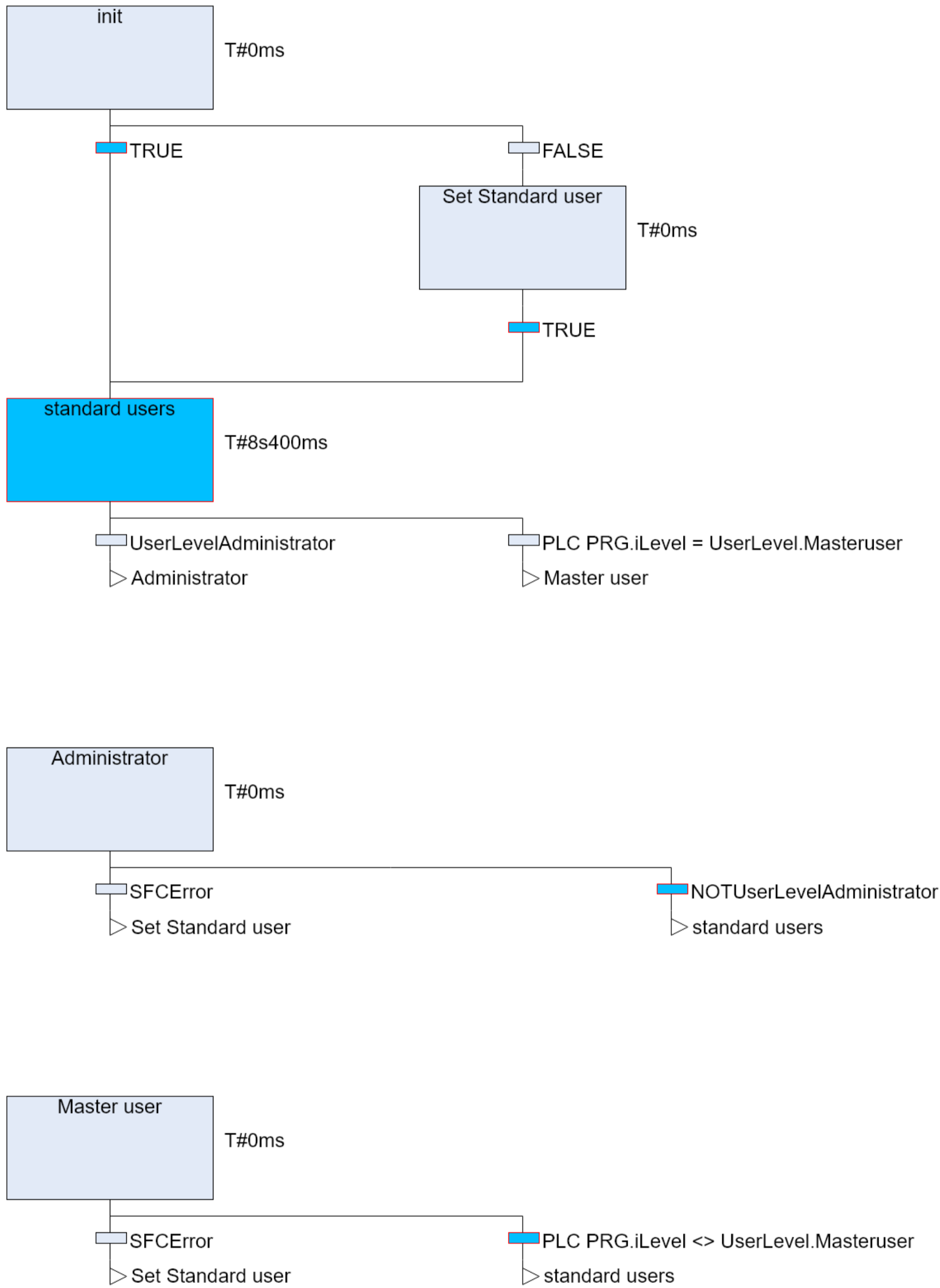
Leakage test

Procedure of the leak test



User level

Expiry of the user level



blank page

dialogues

A dialog box titled "T#0ms" with a header bar. Below the header are four tabs: "0h", "0m", "0s", and "0ms". The main area contains a grid of buttons for time adjustments: "+10m", "+1m", "+10s", "+1s", "+100ms" in the top row, and "-10m", "-1m", "-10s", "-1s", "-100ms" in the bottom row. At the bottom are three buttons: "CLEAR", "ESC", and "OK".

Time entry form

An empty rectangular box representing the dialog for the time entry form.

A dialog box titled "Load defaults" with a header bar. The main area contains a large question mark and two buttons at the bottom: "Yes" and "No".

A dialog box titled "Reset default values" with a header bar. The main area contains a large question mark and two buttons at the bottom: "Yes" and "No".

Dialog for maintenance counter

An empty rectangular box representing the dialog for the maintenance counter.

A dialog box titled "Load factory settings" with a header bar. The main area contains a large question mark and two buttons at the bottom: "Yes" and "No".

A dialog box titled "reset" with a header bar. The main area contains the text "Reset maintenance counter" and a large question mark. Below the text are three input fields: the first contains "0", the second contains "0d00:00:00", and the third contains "0". There is a "reset" button next to the second field, and "Yes" and "No" buttons at the bottom.

A dialog box titled "LTIME#0ns" with a header bar. Below the header are three tabs: "0d", "0h", and "0m". The main area contains a grid of buttons for time adjustments: "+365d", "+1d", "+1h", "+1m", "+10s", "+1s", "+100ms" in the top row, and "-365d", "-1d", "-1h", "-1m", "-10s", "-1s", "-100ms" in the bottom row. At the bottom are three buttons: "CLEAR", "ESC", and "OK".

Dialogue for big times like the hour meter

An empty rectangular box representing the dialog for the large time entry form.

A dialog box titled "Change user level" with a header bar. The main area contains a password input field with "****" and a "standard users" button. Below these are three buttons: "Master user", "Administrator", and "Super administrator". At the top right are "ESC" and "OK" buttons.

Login

An empty rectangular box representing the login dialog.

Alarm texts of the alarm group gError

Alarm groups GError ACK, GError SFC and Warning Start conditions:

○ Any error from these two groups triggers the operation mode "Emergency operation". After expiry of the monitoring time for emergency operation, the control system switches to the "RESTART" operating mode

When rectifying and acknowledging errors occur during the emergency control period, the control system switches to the "Auto" operating mode.
○ restart of the "Auto "(Except warning start conditions)

100	Emergency stop
101	Fault EK1100 PLC2
102	Fault EL1008 PLC3
103	Fault EL1008 PLC4
104	Fault EL1008 SPS5
105	Fault EL2008 PLC6
106	Fault EL2008 SPS7
107	Fault EL3202 SPS8
108	Fault i550 Ethercat
109	overflow protection

Alarm texts of the alarm group GErrorSFC

200	ERROR filling pump on timeout
201	ERROR filling pump Off Timeout
202	ERROR emptying pump on timeout
203	ERROR emptying pump Off Timeout

Alarm texts of the alarm group

GError ACK

301	Load cell 1 TEMPUR
302	Load cell 1 TEMPOR
303	Load cell 1 ECOMUR
304	Load cell 1 ECOMOR
305	Load cell 1 CRAWUR
306	Load cell 1 CRAWOR
307	Load cell 1 LCINTEG
308	Load cell 2 TEMPUR
309	Load cell 2 TEMPOR
310	Load cell 2 ECOMUR
311	Load cell 2 ECOMOR
312	Load cell 2 CRAWUR
313	Load cell 2 CRAWOR
314	Load Cell 2 LCINTEG
315	Load cell 3 TEMPUR
316	Load cell 3 TEMPOR
317	Load cell 3 ECOMUR
318	Load cell 3 ECOMOR
319	Load cell 3 CRAWUR
320	Load cell 3 CRAWOR
321	Load cell 3 LCINTEG
322	Load cell 4 TEMPUR
323	Load cell 4 TEMPOR
324	Load cell 4 ECOMUR
325	Load cell 4 ECOMOR
326	Load cell 4 CRAWUR
327	Load cell 4 CRAWOR
328	Load Cell 4 LCINTEG
329	Fault Connection Inverter Drum
330	Fault Fan 1
331	Fault fan 2
332	Maintenance counter 3 expired
333	Fault inverter drum
334	Fault load cell 1 no connection
335	Fault load cell 2 no connection
336	Fault load cell 3 no connection
337	Fault load cell 4 no connection
338	Fault scrubber air temperature
339	ERROR flushing pump
340	Filling pump motor protection switch faulty
341	Emptying pump motor protection switch faulty
342	Fault heating pump
343	Fault heat quantity counter
344	Fault release from scrubber
345	Fault scrubber collective malfunction

Alarm texts of the alarm group GWarning

Alarm group Warning and Warning SFC:
Es only one entry is made in the alarm list, the system does not react.

401	Undertemperature limit reached!
402	Maintenance counter 1 expired
403	Maintenance counter 2 expired
404	Plant stop from operating mode
405	PT100 supply air temperature sensor wire break
408	PT100 supply air temperature sensor overrange
409	PT100 supply air temperature sensor underrange
410	PT100 heating system return sensor wire break
413	PT100 heating system return sensor overrunning
414	PT100 heating system return sensor underrange

Alarm texts of the alarm group GWarningSFC

500	ERROR Filling valve open Timeout
501	ERROR Filling open External Timeout
502	ERROR filling level Max reached
503	ERROR filling Time reached
504	ERROR Filling External close Timeout
505	ERROR Filling valve close Timeout
506	ERROR Drying time reached
507	ERROR Emptying valve open Timeout
508	ERROR Emptying External open Timeout
509	ERROR level reached min
510	ERROR emptying Time reached
511	ERROR Emptying External close Timeout
512	ERROR Emptying valve close Timeout
513	ERROR Flushing pump on timeout
514	ERROR Flushing pump Off Timeout
515	ERROR drying Level Min reached
516	ERROR filling level Max reached filling counter
517	ERROR filling time reached counter
518	ERROR drying time reached counter
519	ERROR fill level Min reached drying counter
520	ERROR level Min reached emptying counter
521	ERROR time reached emptying counter

Alarm texts of the alarm group GWarningStartConditions

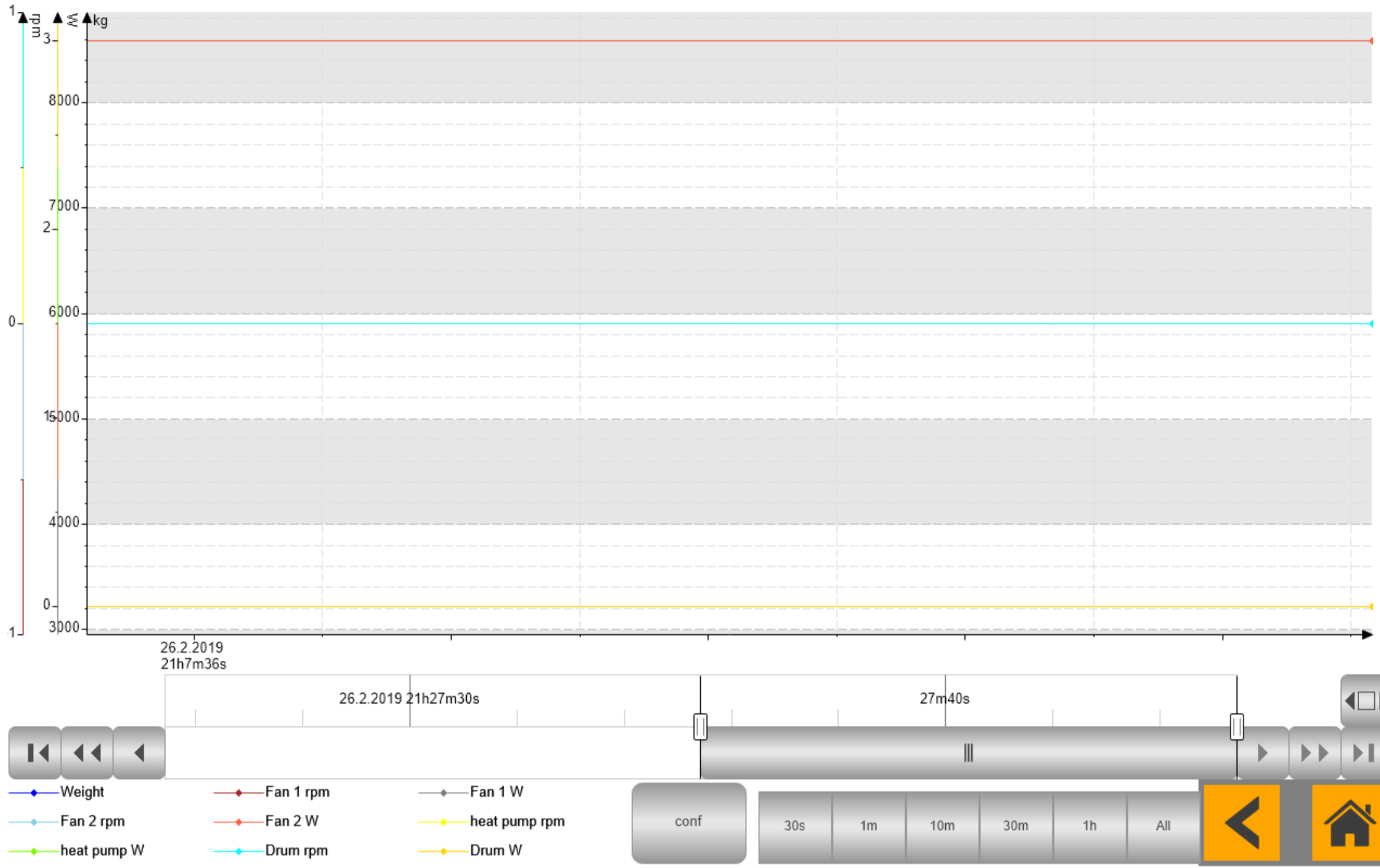
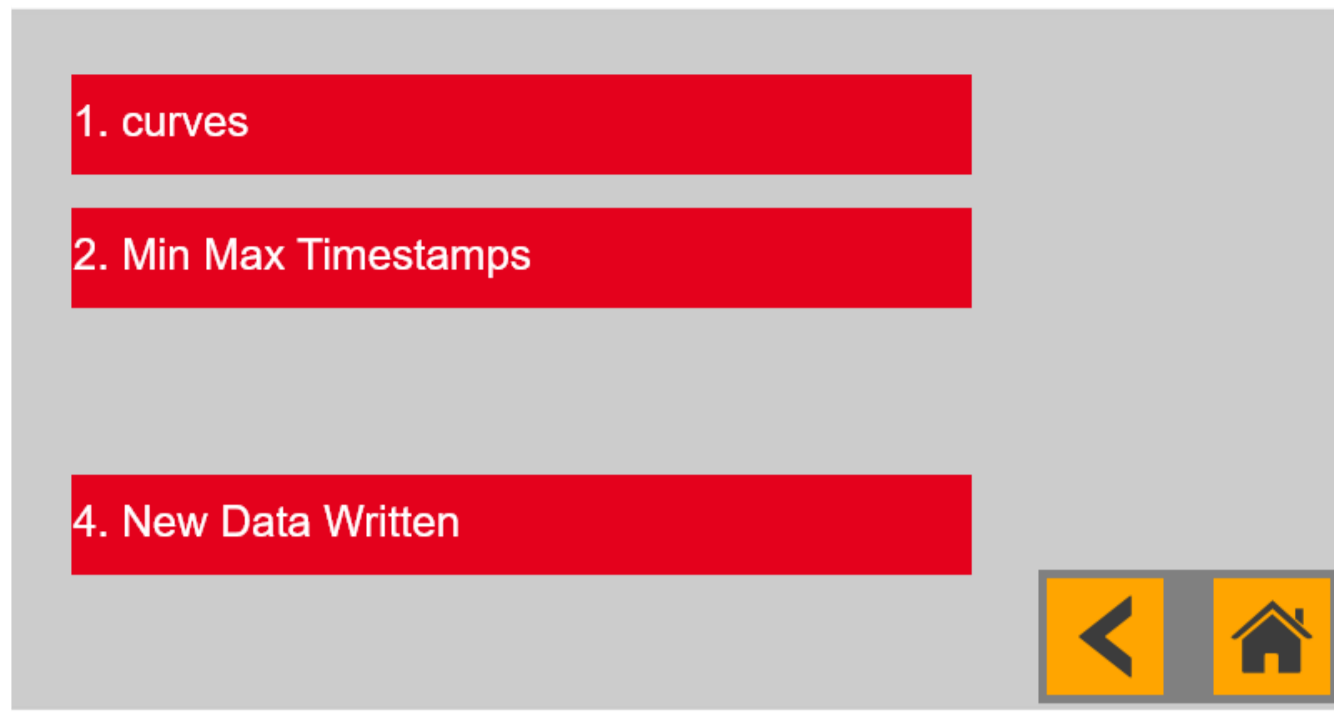
601	ERROR Start Condition Filling valve not Closed
602	ERROR Start condition Emptying valve not Closed
603	ERROR start condition Filling valve open
604	ERROR Start Condition Filling valve Open
605	ERROR start condition Buffer level
606	ERROR start condition flushing pump

1. curves

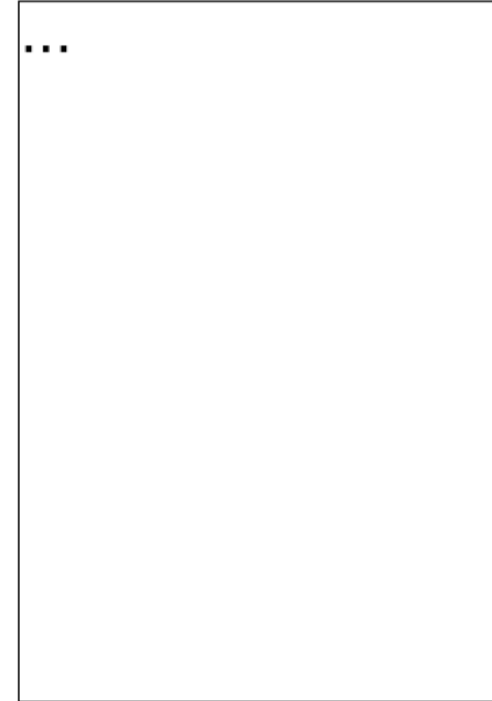


1. curves

Curves graphically displays the recorded values of the listed sensors or loads.



1. curves





2. Min Max Timestamps



Year / Month / Day Hour / Minute / Second / Millisecond / Microsecond

iMinTimestamp = 1548581991427000	=	2019	1	27	9	39	51	427	0
iMaxTimestamp = 1551211665167000	=	2019	2	26	20	7	45	167	0
eError = 0									

2. Min Max Timestamps

Curves graphically displays the recorded values of the listed sensors or loads.





4. New Data Written



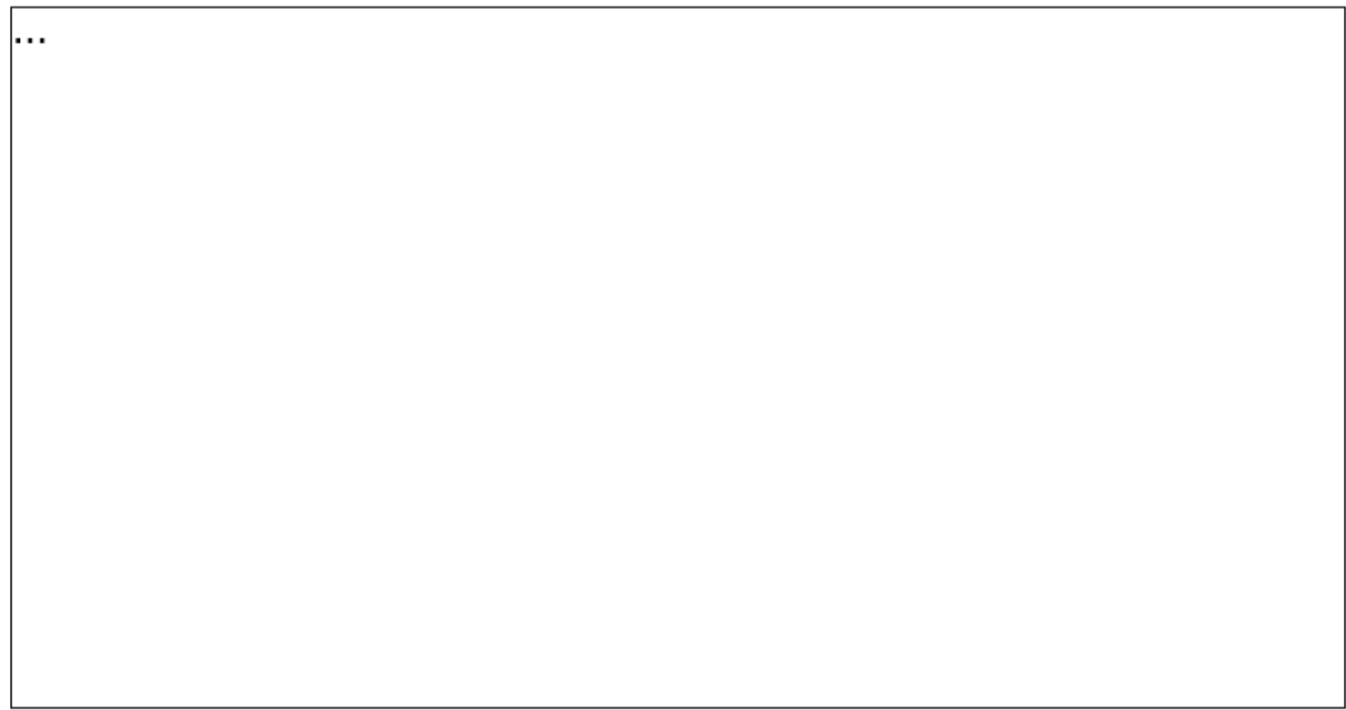
Last write = 0 rows

Year / Month / Day Hour / Minute / Second / Millisecond / Microsecond

TS from = 0	=	0	0	0	0	0	0	0	0
TS to = 0	=	0	0	0	0	0	0	0	0

4. New Data Written



automatic Sequencer

Off
init
Filling
Drying
emptying
alarm
automatic
hand
Test start conditions A
Test start conditions B
Test start conditions C
Test start conditions D
Test start conditions E
Test start conditions F
OK No alarm
OK Start condition Filling valve Closed
ERROR Start Condition Filling valve not Closed
OK Start condition Emptying valve Closed
ERROR Start condition Emptying valve NOT Closed
OK Start condition Filling valve NOT open
ERROR start condition filling valve open
OK Start condition Emptying valve NOT open
ERROR Start Condition Emptying valve Open
OK Start condition Buffer level
ERROR start condition buffer level
OK start condition flushing pump
ERROR start condition FlushingI pump
Fan off
Fan on
OK start conditionsfilled
StartFilling Log
Filling Valve open
OK filling valve open
ERROR Filling valve open Timeout
Filling Valve open external
OK filling valve On external
ERROR Filling valve open External Timeout
Filling pump on
OK filling pump On
ERROR Fill pump on timeout
OK filling pump is running
OK Filling
Filling pump off
OK filling pump off
Filling pump break caster
Filling valve close external
OK filling valve To external
filling valve close
OK filling valve closed
Wait for filling
Histogram Overrun Correction Filling
ERROR filling level Max reaches Filling
ERROR Time reached Filling
ERROR Fill Pump Off Timeout
ERROR Filling valve close external timeout
ERROR Filling valve close Timeout
Mflush
Start Drying Log
MDrying
Wait for Drying
Start Emptying log
Empty valve open
waiting period end of cycle
Histogram Overrun Correction Drying
OK emptying valve open
ERROR Emptying valve open Timeout
Empty valve open external
OK emptying valve open external
ERROR Emptying valve open external timeout
Empty pump on
OK emptying pump on
ERROR Empty pump on timeout
OK emptying pump is running
OK emptying
ERROR filling level Min reached emptying
ERROR Time reached Emptying
Empty pump off
OK emptying pump off
ERROR Empty Pump Off Timeout
Empty pump break caster
Empty valve close external
OK emptying valve closed external
ERROR Emptying valve close external timeout
Empty valve close
OK emptying valve closed
ERROR Emptying valve close Timeout
Wait for emptying
Histogram Overrun Correction Emptying
End of cycle Log
Finish detoxifying B
flushing pump on
OK flushing pump on
ERROR Flushing pump On timeout
OK flushing pump is running
flush
OK flushing
flushing pump off
OK flushing pump Off
ERROR Flushing pump Off Timeout
flushing break caster
OK Drying
ERROR Level Min reached drying
ERROR time reached Drying
Set Standard user
standard users
Administrator
Master user
Leakage test running
Leakage test completed
Leakage test not necessary
Emergency run caster ramp C
hand break
Mauto
auto
Emergency running start conditions
Emergency running

automatic Sequencer

Emergency run caster ramp A
Emergency run caster ramp B
stop system
INIT ACT step chain
STEP Read LoadcellA
STEP Read LoadcellB
STEP Read LoadcellC
STEP Read LoadcellD
blinker
Lighting system stop
Luminous X Fault
slowly blinking
Off before auto
ERROR filling level Max reached
ERROR level reaches min

State

Start filling

Start filling

Start drying

Start emptying

End of cycle

Logger

End_Cycle_Time

End cycle weight
kg

End of cycle heat quantity
kWh

Start_emptying_Time

Start emptying weight
kg

Start emptying heat quantity
kWh

Start_Filling_Time

Start filling weight
kg

Start filling heat quantity
kWh

Start_Drying_Time

Start drying weight
kg

Start drying of heat
kWh

ID

Timestamp

—
Total amount of heat
kWh

Sum of evaporated weight in kg

Total_Time

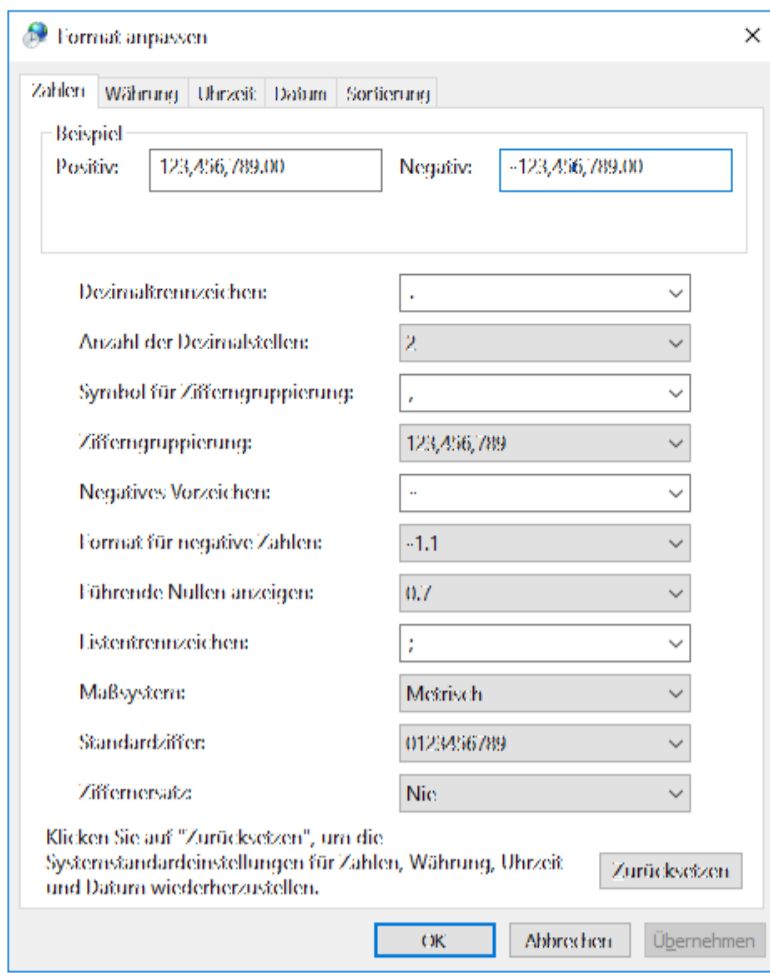
Kwh per kg

Operating mode Current Step

Sequencer Current Step

State

Datalogger



Select these settings in the Windows Control Panel

Use of the logged data in .csv format (Excel export):

For the error-free display of the logged data in .csv format (eg Excel), countries that use "comma" as the decimal separator (Example: 1.000,00) requires the decimal separator to be changed to "dot" (example: 1.000.00).

Because the RondoDry standard control is the same for all countries, the decimal separator of "comma" must be in the following countries "Point" will be changed to:

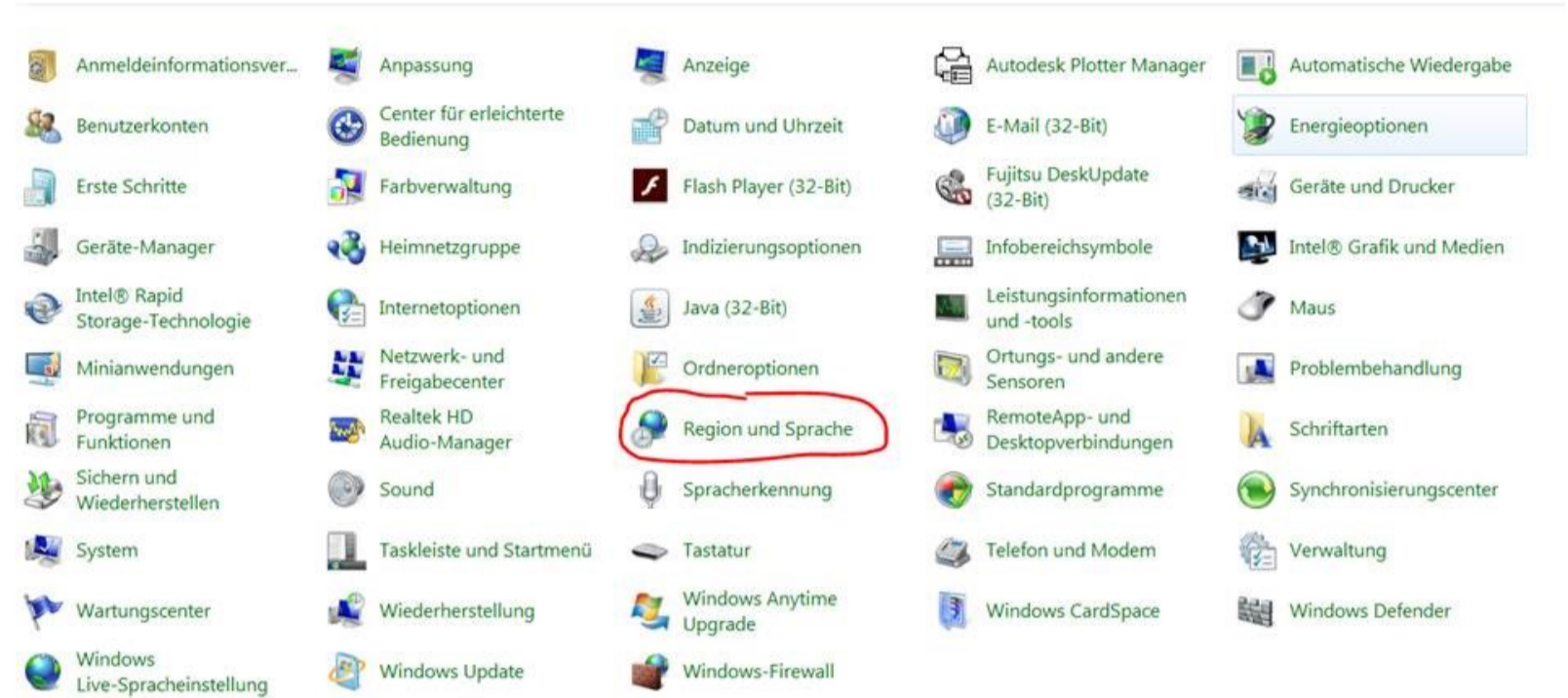
\$Albania, Andorra, Argentina, Belgium, Bolivia, Brazil, Bulgaria, Chile, Denmark, Germany, Ecuador, Estonia, Faroe Islands, Finland, France, Georgia, Greece, Greenland, Indonesia, Iceland, Italy, Colombia, Kosovo, Croatia, Cuba, Latvia, Lithuania, Luxembourg, Macedonia, Moldova, Netherlands, Norway, Austria, Paraguay, Peru, Poland, Portugal, Romania, Russia, Sweden, Serbia, Zimbabwe, Slovakia, Slovenia, Spain, South Africa, Czech Republic, Turkey, Ukraine, Hungary, Uruguay, Venezuela, Belarus

When using Windows as the operating system, the changeover occurs as follows:

Click "Start" (the round Windows icon on the lower left) and then "Control Panel."

Click "Region and Language" (Windows 10: "Language").

The data logger outputs data in 3 formats: \$ R \$ N \$ R \$ N1. HTML \$ R \$ N2. XML \$ R \$ N3. CSV \$ R \$ N \$ R \$ N \$ R \$ Note: CSV is output with the following settings: \$ R \$ NDecimal separator: (Dot) \$ R \$ NSeparator: (Semicolon) \$ R \$ NFieldlimber: \$ "Quotes



In the "Region and Language" menu, please click on "Additional Settings". \$ R \$ NIn the menu "Customize Format", the decimal separator must be "dot" (.) And the symbol for the grouping of numbers must be "comma" (,). \$ R \$ NThe entry is to be confirmed with "Accept" and "OK". \$ R \$ N

