

Custom PLC

Customized touch panels for the management of multiple lines
4-15"

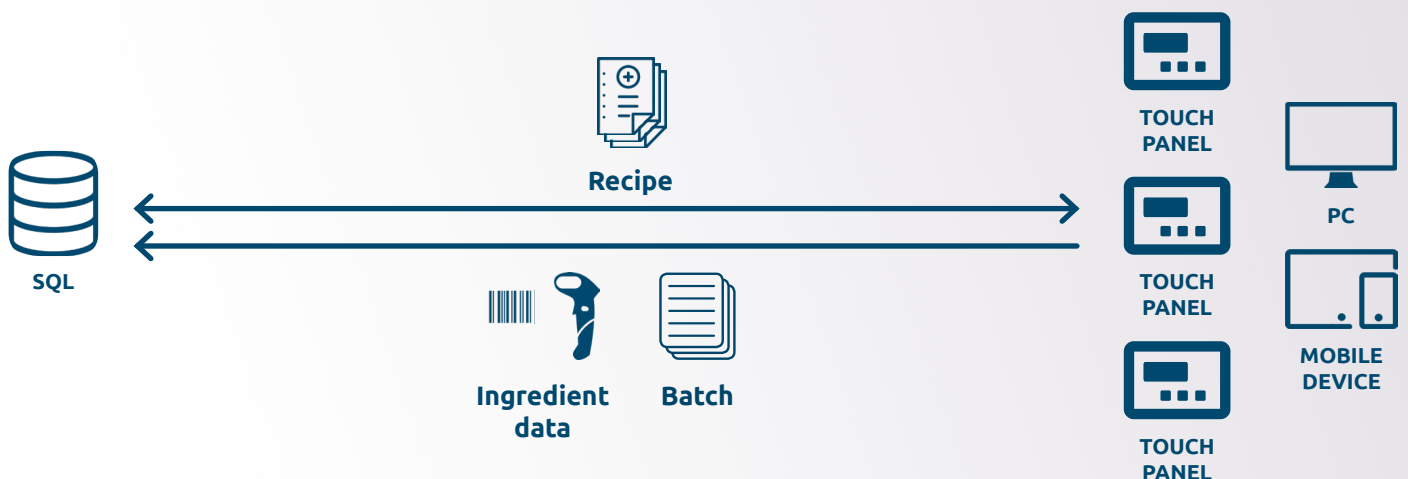
Siemens and Allen Bradley
PC and mobile devices



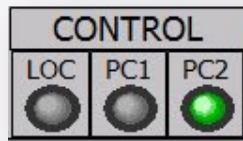
Production management

PRODUCTION		SINGLE		SYNOPTIC		RECIPES		MENÙ		SILENCE SIREN		RESET ALL GENERAL									
MIXER 1		MIXER 2		MIXER 3		MIXER 4		CONTROL LOC  PCI  PC2 		B1  SKIP WAIT. DOS.		 PAUSE									
Nr		Name		RICH TEA L1new						Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]				
23		CyclesSet 1		CyclesNet 0		% 100.0		Weight Net [kg] 448.8				Name		0.00	0.00	± 0.0	0.00				
START		STOP		DOS. PAUSE		PAUSE		UNLOAD				B2  SKIP WAIT. DOS.		 PAUSE							
								FFO 				Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]		
								T. 33 				Name		0.00	0.00	± 0.0	0.00	0.00			
NR		Pro		Name Product		ORIG[Kg]		SET[Kg]		DOS[Kg]		SCR		B3  SKIP WAIT. DOS.		 PAUSE					
1		73		SODIUM		1.200		1.200		0.000		0000000000		Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]
2		74		AMMONIUM		11.500		11.500		0.000		0000000000		Name		0.000	0.000	± 0.000	0.000	0.000	
3		71		SALT		1.600		1.600		0.000		0000000000		B4  SKIP WAIT. DOS.		 PAUSE					
4		21		Sugar		62.500		62.500		0.000		0000000000		Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]
5		1		WATER		72.000		72.000		0.000		0000000000		Name		0.000	0.000	± 0.0	0.0	0.0	
6		79		TRANSF B7>B3		14.300		14.300		0.000		0001000000		B5  SKIP WAIT. DOS.		 PAUSE					
7		0		UNLOAD		0.000		0.000		0.000		0000000101		Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]
8		12		FLOUR 2		300.000		300.000		0.000		0000000000		Name		0.000	0.000	± 0.000	0.000	0.000	
9		0		UNLOAD		0.000		0.000		0.000		0000000010		B6  SKIP WAIT. DOS.		 PAUSE					
10		0		-----		0.000		0.000		0.000		0000000000		Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]
11		0		-----		0.000		0.000		0.000		0000000000		Name		0.000	0.000	± 0.0	0.0	0.0	
12		0		-----		0.000		0.000		0.000		0000000000		B7  SKIP WAIT. DOS.		 PAUSE					
13		0		-----		0.000		0.000		0.000		0000000000		Nr 0		Name		Set[Kg]	Net[Kg]	Tol. [Kg]	Tot [Kg]
14		0		-----		0.000		0.000		0.000		0000000000		Name		0.000	0.000	± 0.000	0.000	0.000	

Production control on multiple lines
Hopper control
Remote and local production modality
Single dosing
Report
Communication with SQL server
Communication with mixer



Production management



PRODUCTION										SILENCE SIREN										RESET ALL GENERAL									
0-WAITING										B1 SKIP WAIT. DOS. PAUSE										B2 SKIP WAIT. DOS. PAUSE									
Name RICH TEA L1new										Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]										Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
Nr 23 CyclesSet 1 CyclesNet 0 % 100.0 Weight Net [kg] 448.8 Weight Net [kg] 448.8										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
START STOP DOS. PAUSE PAUSE UNLOAD FFD										B3 SKIP WAIT. DOS. PAUSE										B4 SKIP WAIT. DOS. PAUSE									
NR Pro Name Product ORIG [Kg] SET[Kg] DOS [Kg] SCR										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
1 73 SODIUM 1.200 1.200 0.000 0000000000										B5 SKIP WAIT. DOS. PAUSE										B6 SKIP WAIT. DOS. PAUSE									
2 74 AMMONIUM 11.500 11.500 0.000 0000000000										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
3 71 SALT 1.600 1.600 0.000 0000000000										B7 SKIP WAIT. DOS. PAUSE										B8 SKIP WAIT. DOS. PAUSE									
4 21 Sugar 62.500 62.500 0.000 0000000000										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
5 1 WATER 72.000 72.000 0.000 0000000000										B9 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
6 79 TRANSF B7>B3 14.300 14.300 0.000 0001000000										B10 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
7 0 UNLOAD 0.000 0.000 0.000 0000000101										B11 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
8 12 FLOUR 2 300.000 300.000 0.000 0000000000										B12 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
9 0 UNLOAD 0.000 0.000 0.000 0000000010										B13 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
10 0 0.000 0.000 0.000 0000000000										B14 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
11 0 0.000 0.000 0.000 0000000000										B15 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
12 0 0.000 0.000 0.000 0000000000										B16 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
13 0 0.000 0.000 0.000 0000000000										B17 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									
14 0 0.000 0.000 0.000 0000000000										B18 SKIP WAIT. DOS. PAUSE										Nr 0 Name Set[Kg] Net[Kg] Tol. [Kg] Tot. [Kg]									

Select the production modality

Local production modality: the recipe is started and managed in the PLC

Remote production modality: the recipe is started and managed elsewhere

Name RICH TEA L1new										SILENCE SIREN										RESET ALL GENERAL									
0-WAITING										Nr 23 Name RICH TEA L1new Tot [Kg] 448.800										Nr 0 Name RICH TEA L1new SET[Kg] T[°C] Spd% SCR									
Nr. Name Recept Show Prod										1 73 SODIUM 1.200 0.0 0 0000000000										2 74 AMMONIUM 11.500 0.0 0 0000000000									
16 GINGER L2										3 71 SALT 1.600 0.0 0 0000000000										4 21 Sugar 62.500 0.0 0 0000000000									
17 RICH TEA L2										5 1 WATER 72.000 0.0 0 0000000000										6 79 TRANSF B7>B3 14.300 0.0 0 0001000000									
18 MALTI L4										7 0 UNLOAD 0.000 0.0 0 0000000101										8 12 FLOUR 2 300.000 0.0 0 0000000000									
19 SNOWY L4										9 0 UNLOAD 0.000 0.0 0 0000000010										10 0 0.000 0.0 0 0000000000									
20 MALTY L2										11 0 0.000 0.0 0 0000000000										12 0 0.000 0.0 0 0000000000									
21 Sugar water										13 0 0.000 0.0 0 0000000000										14 0 0.000 0.0 0 0000000000									
22 sugar water										15 0 0.000 0.0 0 0000000000										16 0 0.000 0.0 0 0000000000									
23 RICH TEA L1new										17 0 0.000 0.0 0 0000000000										18 0 0.000 0.0 0 0000000000									
24 sugar water										19 0 0.000 0.0 0 0000000000										20 0 0.000 0.0 0 0000000000									
25 test I3										21 0 0.000 0.0 0 0000000000										22 0 0.000 0.0 0 0000000000									
26 micro I1										23 0 0.000 0.0 0 0000000000										24 0 0.000 0.0 0 0000000000									

Recipe selection

Access the recipe list from the production page

Visualize recipe details

Select the recipe to produce

Production management

PRODUCTION		SINGLE		SYNOPTIC		RECIPES		MENÜ		SILENCE SIREN	RESET ALL GENERAL	
MIXER 1		MIXER 2		MIXER 3		MIXER 4		CONTROL		B1 SKIP	WAIT. DOS.	PAUSE
0-WAITING												
Nr	Name RICH TEA L1new											
23	CyclesSet	CyclesNet	%	Weight Net [kg]	Weight Net [kg]							
	1	0	100.0	448.8	448.8							
START	STOP	DOS. PAUSE	PAUSE	UNLOAD	PRO							
Nr	Pro	Name Product	DOS [Kg]	SET [Kg]	DOS [Kg]	SCR						
1	73	SODIUM	200	1.200	0.000	0000000000						
2	74	AMMONIUM	1.500	11.500	0.000	0000000000						
3	71	SALT	600	1.600	0.000	0000000000						
4	21	Sugar	600	62.500	0.000	0000000000						
5	1	WATER	72.000	72.000	0.000	0000000000						
6	79	TRANSF B7>B3	14.300	14.300	0.000	0001000000						
7	0	UNLOAD	0.000	0.000	0.000	0000000001						
13	0		0.000	0.000	0.000	0000000000						
14	0		0.000	0.000	0.000	0000000000						

Production details

Monitor and change the details of the recipe
Control cycles, weight, percentage, pieces to dose, batch, temperature...

PRODUCTION		SINGLE		SYNOPTIC		RECIPES		MENÜ		SILENCE SIREN	RESET ALL GENERAL	
MIXER 1		MIXER 2		MIXER 3		MIXER 4		CONTROL		B1 SKIP	WAIT. DOS.	PAUSE
0-WAITING												
Nr	Name RICH TEA L1new											
23	CyclesSet	CyclesNet	%	Weight Net [kg]	Weight Net [kg]							
	1	0	100.0	448.8	448.8							
START	STOP	DOS. PAUSE	PAUSE	UNLOAD	PRO							
Nr	Pro	Name Product	DOS [Kg]	SET [Kg]	DOS [Kg]	SCR						
1	73	SODIUM	200	1.200	0.000	0000000000						
2	74	AMMONIUM	1.500	11.500	0.000	0000000000						
3	71	SALT	600	1.600	0.000	0000000000						
4	21	Sugar	600	62.500	0.000	0000000000						
5	1	WATER	72.000	72.000	0.000	0000000000						
6	79	TRANSF B7>B3	14.300	14.300	0.000	0001000000						
12	0		0.000	0.000	0.000	0000000000						
13	0		0.000	0.000	0.000	0000000000						
14	0		0.000	0.000	0.000	0000000000						

Production commands

Start and stop the production of the recipe
Stop dosing on all lines temporarily or stop dosing when current cycle ends
Authorize unloading on mixer

Production management

B1	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.0	0.00
B2	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.000	0.00
B3	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.0	0.00
B4	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.000	0.000	± 0.000	0.000
B5	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.0	0.00
B6	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.000	0.000	± 0.000	0.000
B7	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.0	0.00
B8	SKIP	WAIT. DOS.			PAUSE
Nr	Name	Set [Kg]	Net [Kg]	Tol. [Kg]	Tot [Kg]
0	-----	0.00	0.00	± 0.000	0.000

0-WAITING

COMMUNICATION
MIXER OFF

MIXER

Request Product1

Request Product2

CEPI

EndProduct1

EndProduct2

	NR	Pro	Name Product	ORIG[Kg]	SET[Kg]	DOS[Kg]	SCR
	1	73	SODIUM	1.200	1.200	0.000	000000000
	2	74	AMMONIUM	11.500	11.500	0.000	000000000
	3	71	SALT	1.600	1.600	0.000	000000000
	4	21	Sugar	62.500	62.500	0.000	000000000
	5	1	WATER	72.000	72.000	0.000	000000000
	6	79	TRANSF B7>B3	14.300	14.300	0.000	000100000
	7	0	UNLOAD	0.000	0.000	0.000	000000010
	8	12	FLOUR 2	300.000	300.000	0.000	000000000
	9	0	UNLOAD	0.000	0.000	0.000	000000001
	10	0	-----	0.000	0.000	0.000	000000000
	11	0	-----	0.000	0.000	0.000	000000000
	12	0	-----	0.000	0.000	0.000	000000000
	13	0	-----	0.000	0.000	0.000	000000000
	14	0	-----	0.000	0.000	0.000	000000000
	15	0	-----	0.000	0.000	0.000	000000000

Monitor production

Hopper details showing the state of each hopper including name and number of ongoing recipe, set and net weight and tolerance

State bar showing the current state of the dosing on the line

Communication with mixer showing the requests from the mixer and the replies from the CEPI system

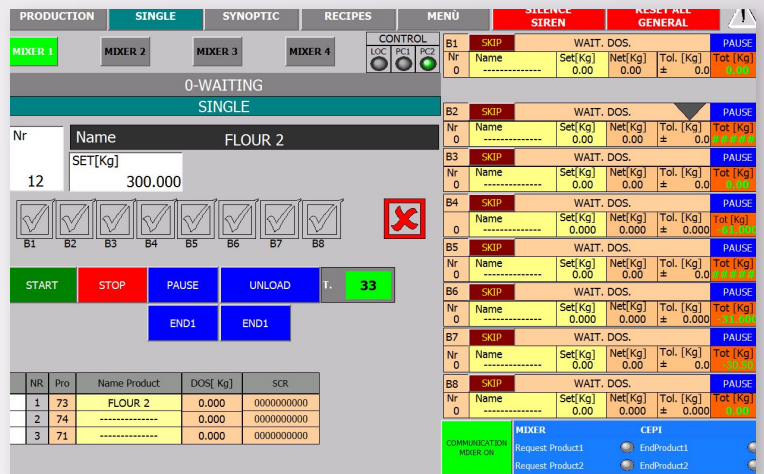
Recipe report showing the details of the ongoing recipe including state of step, name and number of product dosed in step, set and net weight and temperature

MCC1	B4-MCC2		101M		102M	
7	-----	7	-----	7	-----	-----
6	-----	6	-----	6	-----	-----
5	-----	5	-----	5	-----	-----
4	-----	4	-----	4	-----	-----
3	-----	3	-----	3	-----	-----
2	-----	2	-----	2	-----	-----
1	-----	1	-----	1	-----	-----
	L4		-----		L4	

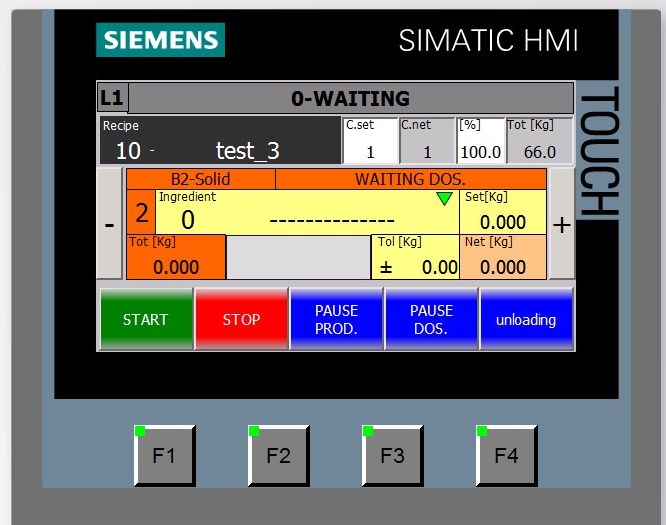
Hopper reservations

Monitor and manage the dosing order

Production management



Single dosing



Production page on Touch Panel 4"

Recipe management

PRODUCTION

SINGLE

SYNOPTIC

RECIPES

MENÙ

SILENCE SIREN

RESET ALL GENERAL

Nr 30

Name

RICH TEA L3

Tot [Kg]

452.800

12/02/2016 20:36:45

☒

L1

☒

L2

☒

L3

☒

L4

N. pas

N. pro.

Name product

SET [Kg]

Spd %

T [°C]

Unloading

1

21

Sugar

62.500

0

0.0

2

1

WATER

76.000

0

0.0

3

61

SALT

1.600

0

0.0

4

64

AMMONIUM

11.500

0

0.0

5

63

SODIUM

1.200

0

0.0

6

69

TRASF B6>B3

14.300

0

0.0

0000100000

7

0

UNLOAD

0.000

0

0.0

0000000101

8

11

FLOUR 1

300.000

0

0.0

9

0

UNLOAD

0.000

0

0.0

0000000010

10

0

0.000

0

0.0

11

0

0.000

0

0.0

12

0

0.000

0

0.0

13

0

0.000

0

0.0

16

GINGER L2

17

RICH TEA L2

18

MALTI L4

19

SNOWY L4

20

MALTY L2

21

Sugar water

22

sugar water

23

RICH TEA L1new

24

sugar water

25

test l3

26

micro l1

27

ammonium l1

28

sugar water

Create recipes for lines and installation, send them to traceability software and viceversa



Recipe management

Recipe list

List of all available recipes and potential recipes (yet to write and save)

Click on the yellow button to visualize details in the Recipe Details panel

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL
Nr 30	Name RICH TEA L3	Tot [Kg] 452.800	12/02/2016 20:36:45			
N. 16	Name GINGER L2					
N. 17	Name RICH TEA L2					
N. 18	Name MALTI L4					
N. 19	Name SNOWY L4					
N. 20	Name MALTY L2					
N. 21	Name Sugar water					
N. 22	Name sugar water					
N. 23	Name RICH TEA L1new					
N. 24	Name sugar water					
N. 25	Name test I3					
N. 26	Name micro I1					
N. 27	Name ammoniun I1					
N. 28	Name sugar water					

Recipe details

Details of the selected recipe:

click on any step and view or change product number, name, weight, speed of dosing, temperature, unloading steps

Nr 30	Name RICH TEA L3	Tot [Kg] 452.800	12/02/2016 20:36:45

Header

Number, name, total weight and time of last memorization

Flag the lines the recipe is destined to

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL
Nr 30	Name RICH TEA L3	Tot [Kg] 452.800	12/02/2016 20:36:45			
N. 17	Name RICH TEA L2					
N. 18	Name MALTI L4					
N. 19	Name SNOWY L4					
N. 20	Name MALTY L2					
N. 21	Name Sugar water					
N. 22	Name sugar water					
N. 23	Name RICH TEA L1new					

Unloading steps

Unloading steps are green.

Click to view step details, view or assign hopper

PASSO

2

+

PRODOTTI

42

PESO

3,000

Kg

TEMP.

0,0

°C

SCARICO

☒ B1 - LIQUIDI

☒ B2 - POLVERI

☒ B3 - OLIO

☒ B4 - TRIMIX

OPZIONI

☒ DISABILITA

☒ -----

☒ -----

TEMPO OPZIONE

0

s

OPTIONS

☒ Disable

Optional Time

0

m

Work Time

0

m

Pause Time

0

m

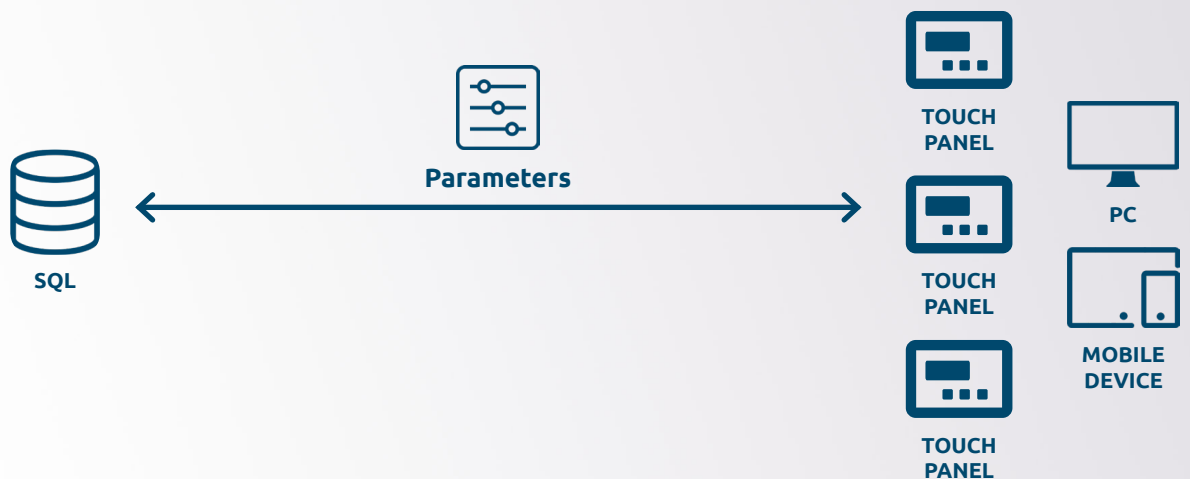
Step options

Assign an activity to the step such as mixing, cooling... and set a duration time

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL	!
LINE 1	LINE 2	LINE 3	LINE 4				
NUMBER PRODUCT					-	8	+
Name					FAT		
NUMBER SILO					8		
TOLERANCE[Kg]					0.000		
CHANGE MAXIMUM SET [kg]					0.000		
WAITING TIME [S]					600.000		
QUEUE [Kg]					0.000		
QUEUE TIME [S]					5.000		
CORR. QUEUE %					0		
PRESET [Kg]					10.000		
HIGH SPEED %					58		

PRODUCTS
 SILO
 CHANGE PARAM
 LOGOUT
 PASSWORD

Product parameters, hopper parameters, installation and line data, system parameters



PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL	!
LINE 1	LINE 2	LINE 3	LINE 4				
NUMBER PRODUCT				-	8	+	
Name				FAT			
NUMBER SILO				8			
TOLERANCE[Kg]				0.000			
CHANGE MAXIMUM SET [kg]				0.000			
WAITING TIME [S]				600.000			
QUEUE [Kg]				0.000			
QUEUE TIME [S]				5.000			
CORR. QUEUE %				0			
PRESET [Kg]				10.000			
HIGH SPEED %				58			
SLOW SPEED %				18			

PRODUCTS
SILO
CHANGE PARAM
LOGOUT PASSWORD

Product parameters for the dosing

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL	!
							PRODUCTS
							SILO
							CHANGE PARAM
							LOGOUT PASSWORD
NUMBER SILO				-	8	+	
Name				FAT			
STOCKS [Kg]		10171.1	LOAD	0.0	[Kg]		
MIN STOCK [Kg]		500.0					
Mx SILO [Kg]		10500.0					
MAX BARGRAPH [Kg]		12000.0					

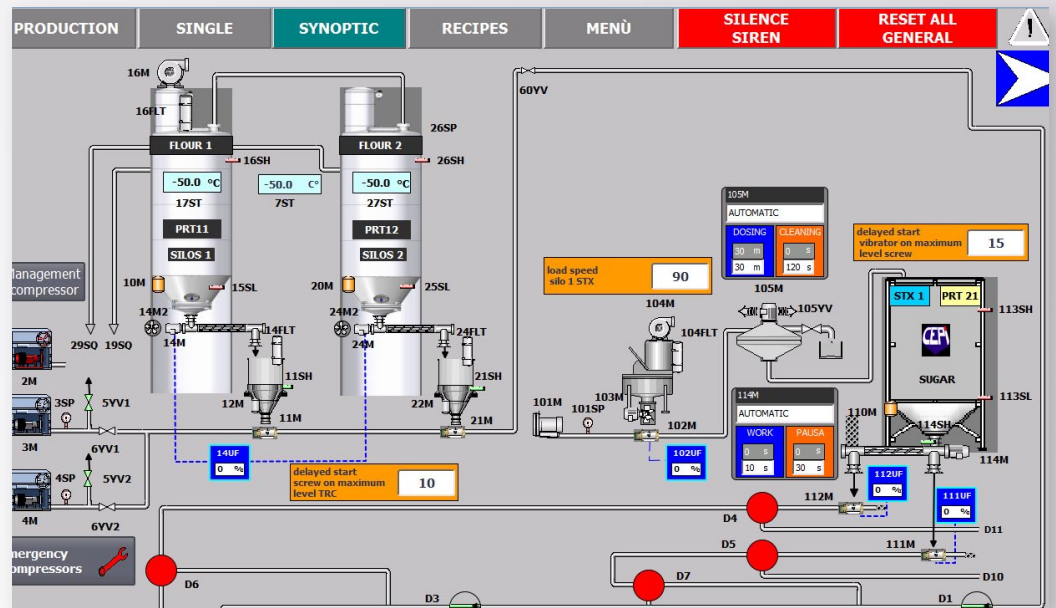
Product parameters for the storing

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL	!
LINE 1	LINE 2	LINE 3	LINE 4				
NUMBER PRODUCT				-	11	+	
Name				FLOUR 1			
NUMBER SILO				11			
STOCK PRODUCTS 1				11			
STOCK PRODUCTS 2				12			
STOCK PRODUCTS 3				0			
STOCK PRODUCTS 4				0			
CURRENT STOCK				0			
CHANGE CONTROL				MINIMUM LEVEL			
				PRODUCTS			
				SILO			
				CHANGE PARAM			
				LOGOUT PASSWORD			

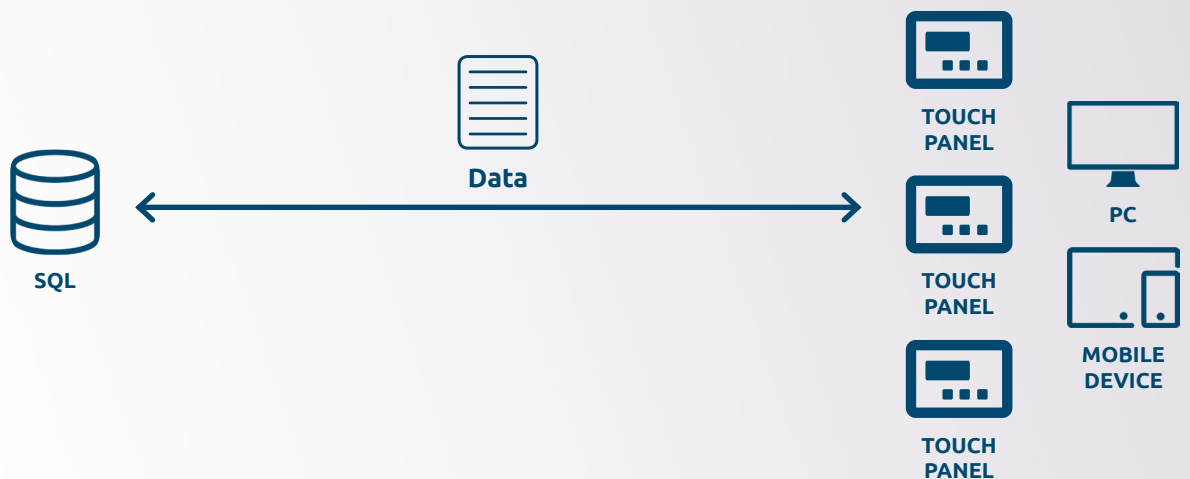
Product parameters for the change

PRODUCTION	SINGLE	SYNOPTIC	RECIPES	MENÙ	SILENCE SIREN	RESET ALL GENERAL	!
LINE 1	LINE 2	LINE 3	LINE 4				
Hopper				1	+		
WEIGHT MAX [KG]				999.000			
WEIGHT MIN [KG]				0.100			
DELTA TIME FOR WEIGHT STABLE [s]				1.0			
DELTA TIME FOR WEIGHT STABLE [Kg]				0.200			
UNLOADING END TIME [S]				10.000			
END CYCLE TIME [S]				0.500			
RECIRCLE TIME [S]				10.000			

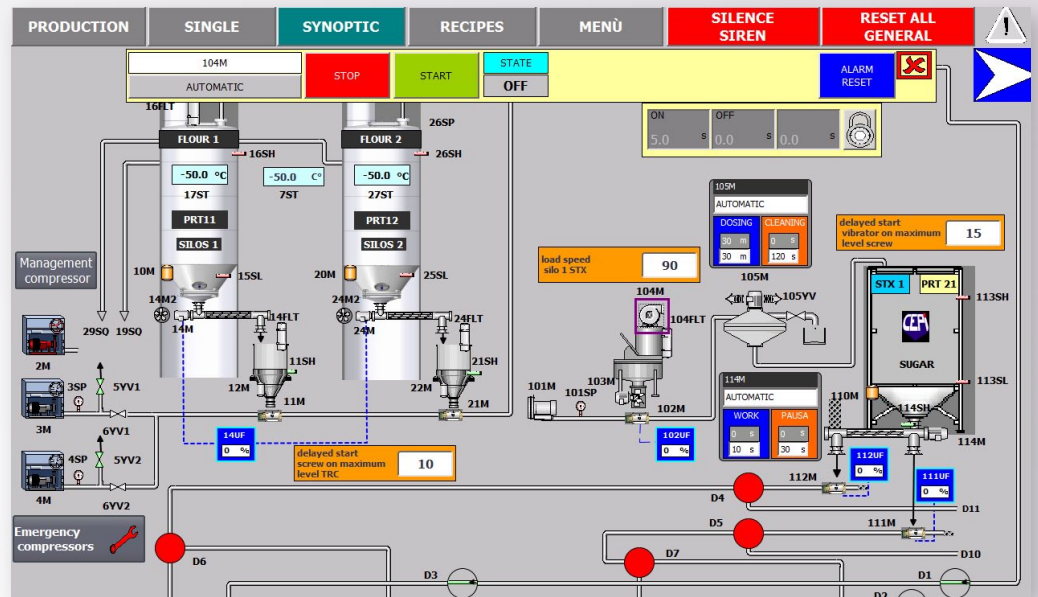
Hopper parameters



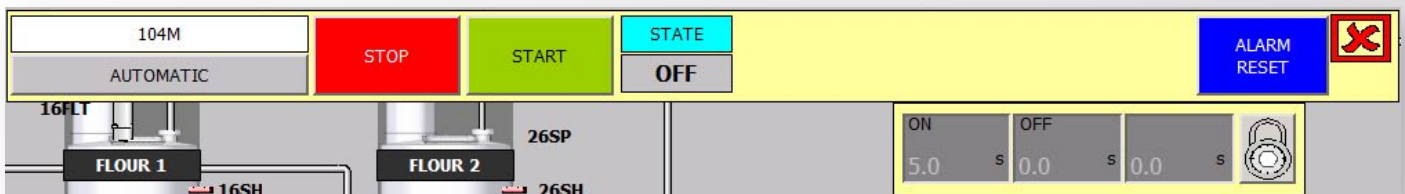
Overview of installation, silos, hoppers and utilities
Maintenance with manual working modality



Synoptic overview: maintenance



Command any utility in the manual working modality



Manual commands

Automatic/Manual button

State of the utility

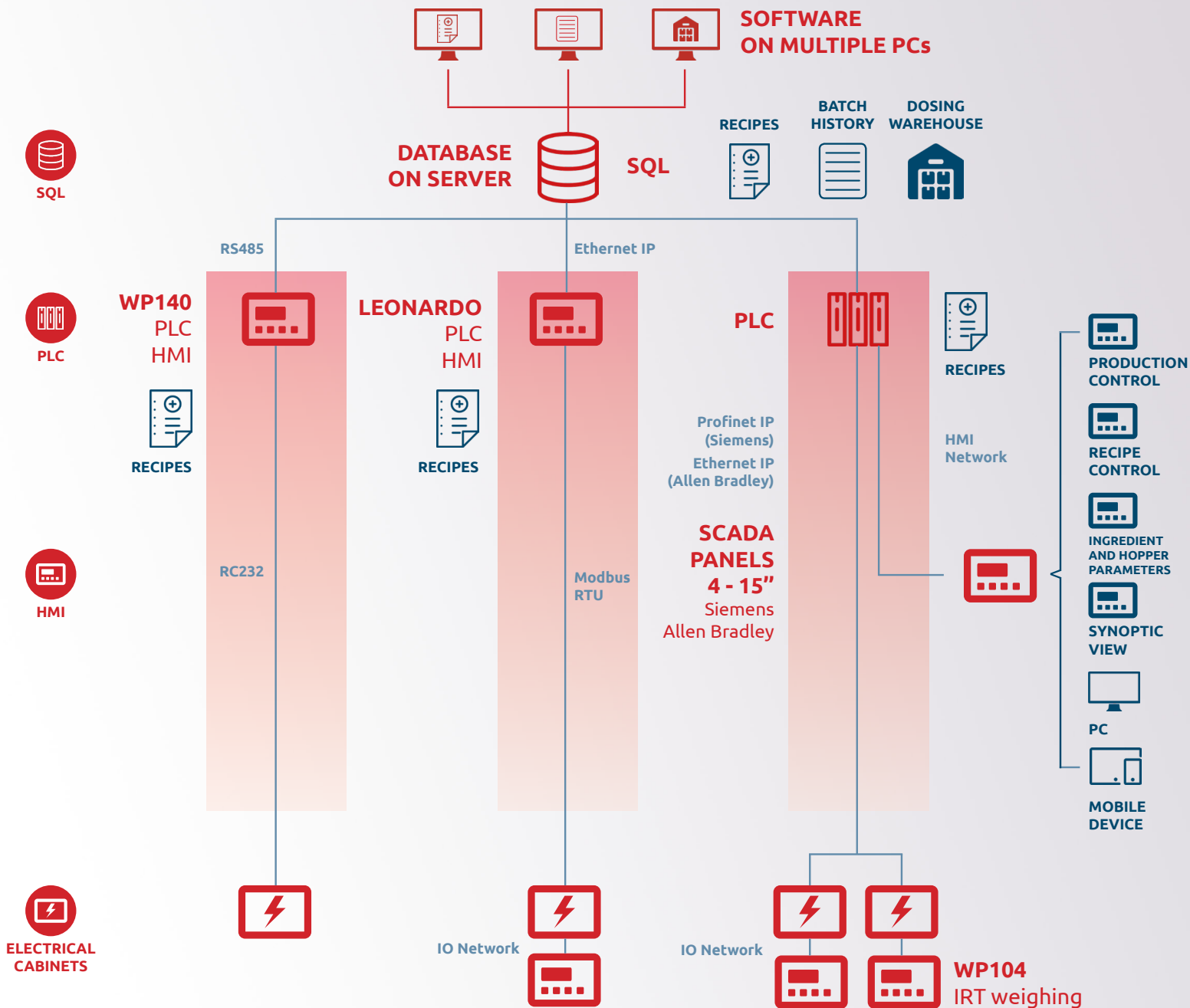
Utilities under inverter show a speed field

Reset alarms

Set sensitive times for the utilities

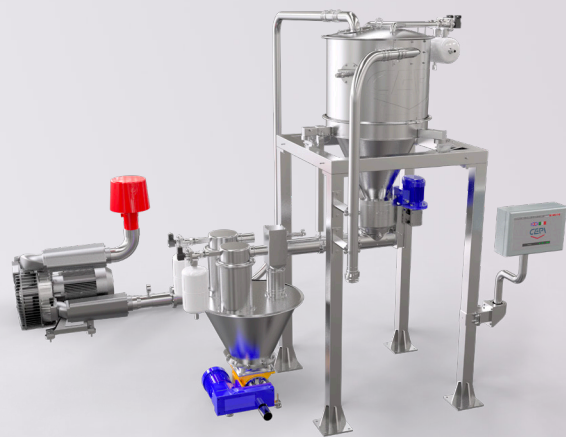
Special parameters for filters and sensors

Architecture of the automation system





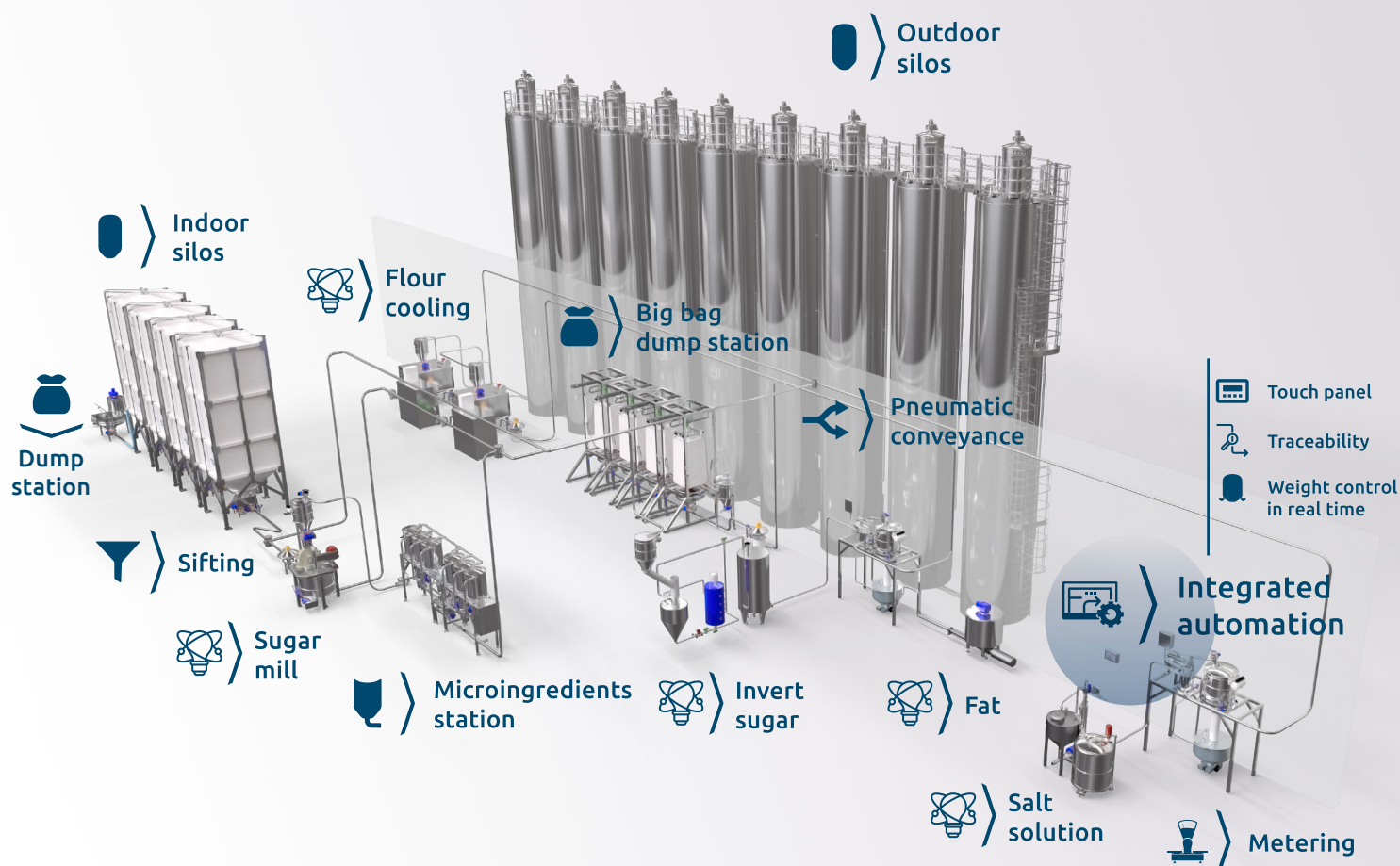
Touch panel managing
fermentation line



Touch panel managing
continuous microingredient
dosing



Three dosing lines for powders and liquids
with touch panel managing each line



Bulk-handling systems for the food industry since 1985



STORING



CONVEYING



DOSING



AUTOMATION

Product and process analysis
Engineering and control
Direct manufacture
Project management
Installation and commissioning
Monitoring and service



Bakery & biscuits
Confectionery
Pasta & Cereals
Dairy
Premix

Functional food
Baby food
Pet food
Chemical
Pharmaceutical