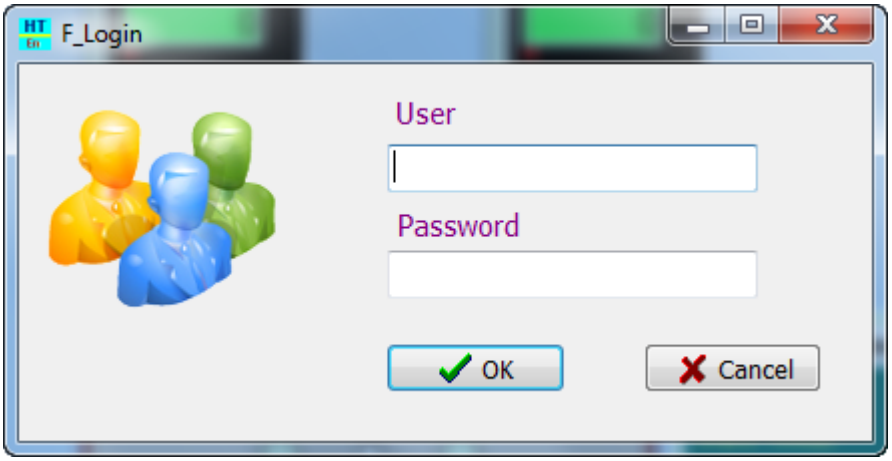
HTENBATCH CONTROL SYSTEM FOR CONCRETE BATCHING PLANT

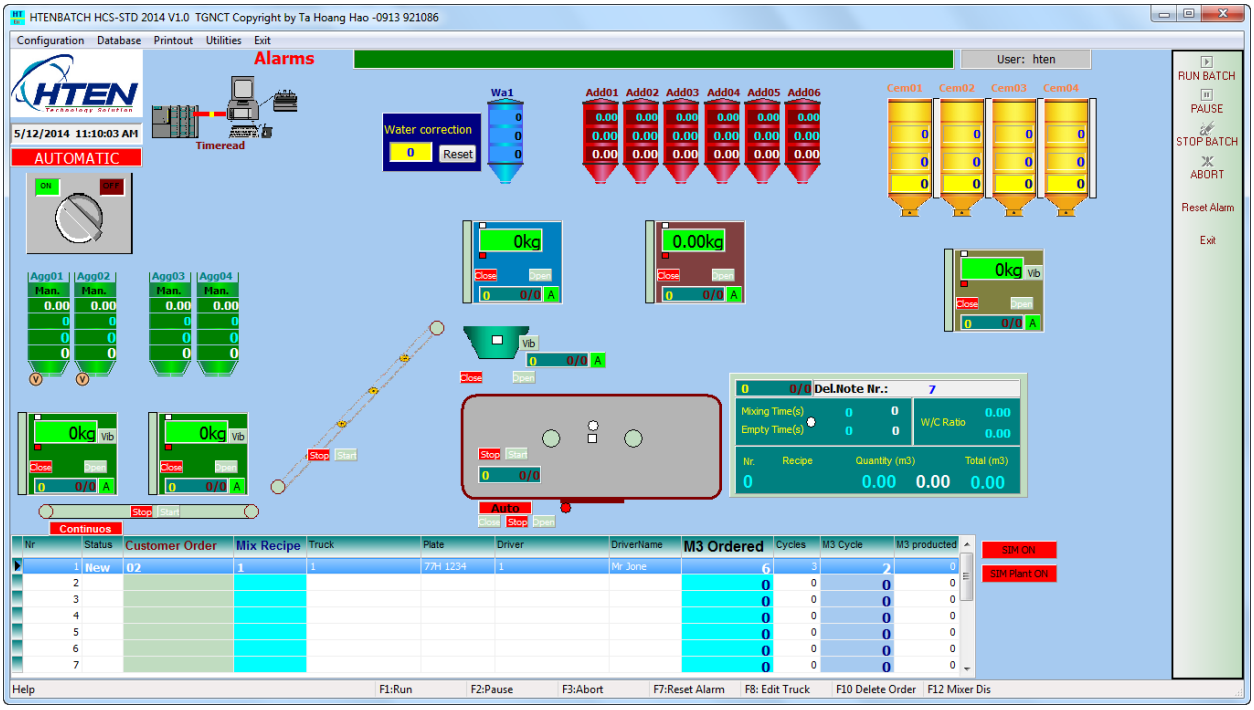
1. The Overview of the software:

Running the program ECS-STD 2014 by clicking this ICON on desktop 



Enter username and password to login the software.

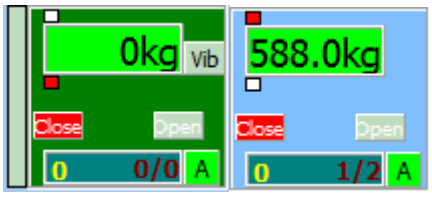
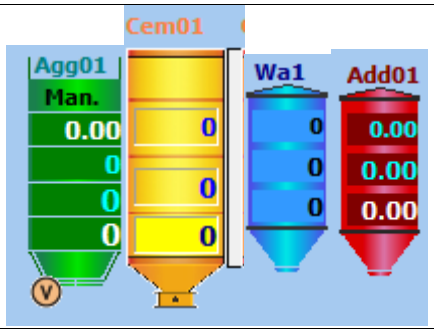
Below picture is a synoptic window which is displayed as an example about mixer, conveyor weigh belt, belt, additive weighing hopper and water weighing hopper.

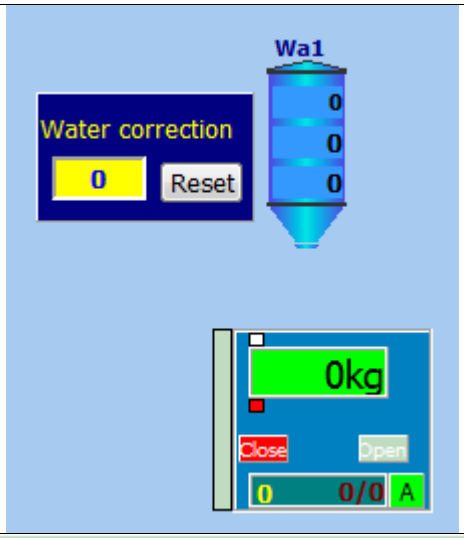
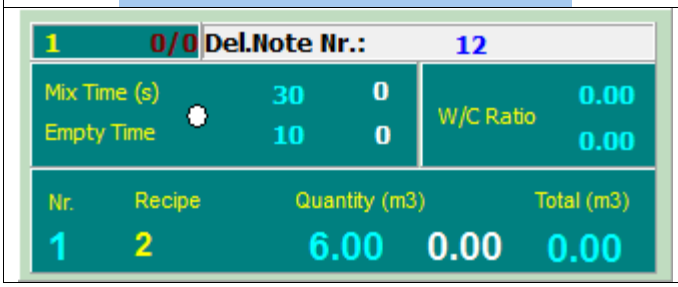


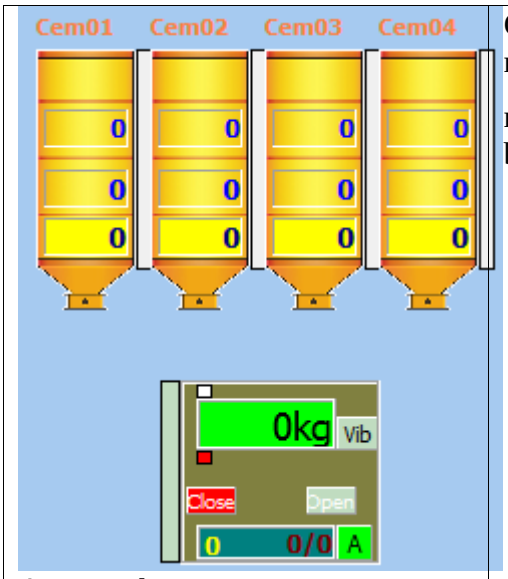
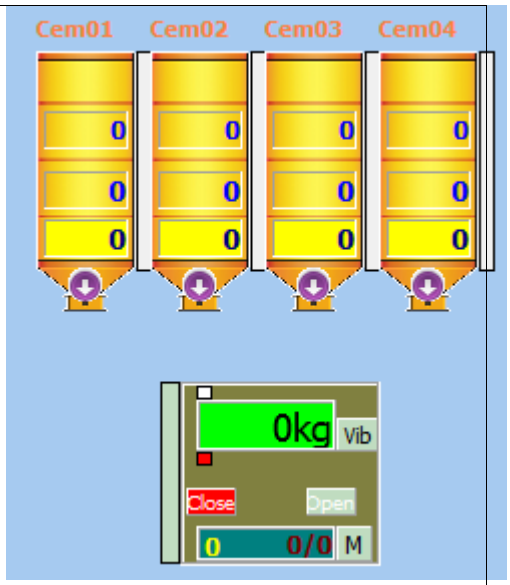
The menu structure of the application

MENU	Level 1	Level 2	Level 3
Configuration	Plant parameters		
	Meters parameters		
	Components		
	Aggregate moisture		
Database	Customers		
	Sites		
	Mix recipe		
	Customer ‘ s Order		
	Trucks		
	Drivers		
	Raw Material storage		
	Delivery Notes		
Printout	Report	Delivery Notes	
		Mixing report	
		Daily report by truck	
		Daily summary report	
		Material usage by mix design	
		Material consumption report	
		Detail batch with time	
	Database	Mix recipe	Detail
			Summary

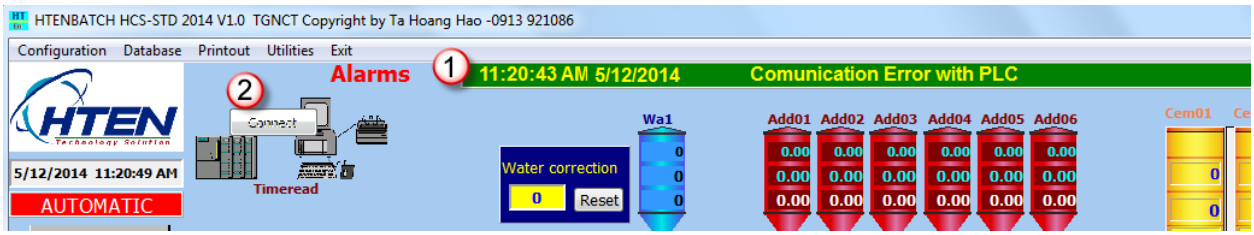
		Customer's order	
		Customers	
		Sites	
		Trucks	
		Drivers	
Utilities	Logon-out		
	View event History		
	Delete Data		
	Setting IP Adddress		
	Diagnosis		
	Language		
	Users		
	About		

	Synoptic for Hopper scale or conveyor scale: • Display current value. • Lamps display status scale is Full or Empty. • Red color status is hopper closed or conveyor stop. • Green color statuc is hopper opened or conveyor running. • Display batch No actualy / Batch No Target. • A/M Button : allow switch between Auto mode and Man mode.
	Synoptic for Bin Agg ,Silo Cement,Tank Water or Tank Additives. Display value from bottom to up is • Actual value dosed include Auto and Man. • Target value after compensation. • Setpoint value for 1m3 (This value in mix design).

	• Moisture value. • Moisture measuring by probe(Auto) or by manual. • Short name material.
	Water correction : Add more water or minus water by press key "+" or key "-" Button Reset to zero.
	Displaying the information about batching in the mixer. • Mixing time target / Mixed time • Empty time target / Full disharged time • W/C Ratio target/ Ratio actual.

 Auto mode	Changing from Auto mode to manual mode by click  button. • Click Open button to run dosing by man. • Click Open button to open hopper by man • Click Close button to close hopper by man.	 Manual Mode

First we check the communication between PLC and PC:



This picture shows the error about the communication between PLC and PC

 To alarm communication PLC and PC is error.

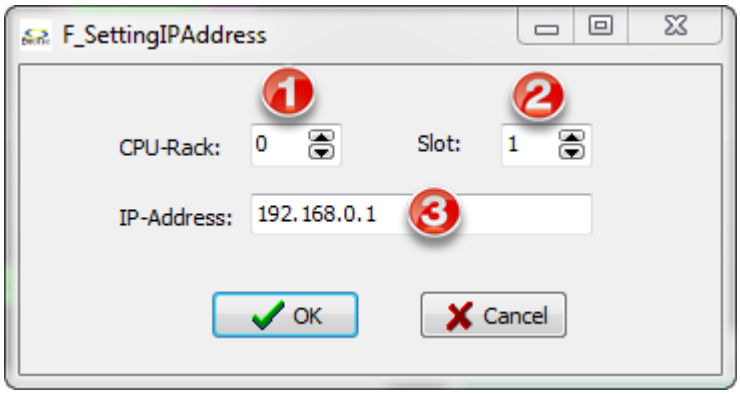
 Click button **Connect** to connect PLC and PC again.

If the communication is still error. Please check below :

- PLC is Running (Green lamp on the PLC).

- Cable LAN network.

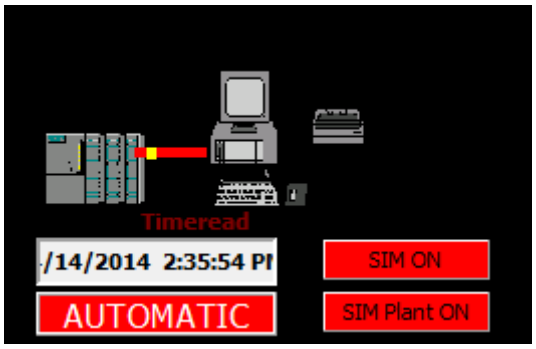
- Check IP Address : Click **Menu Utilities** → **Setting IP Address** -→ PLC-Dialog will be appeared as the below picture.



 CPU-Rack =0

Slot =1 for PLC using is S7-1200 .Slot =2 for PLC using is S7-300.

IP-Address =192.168.0.1



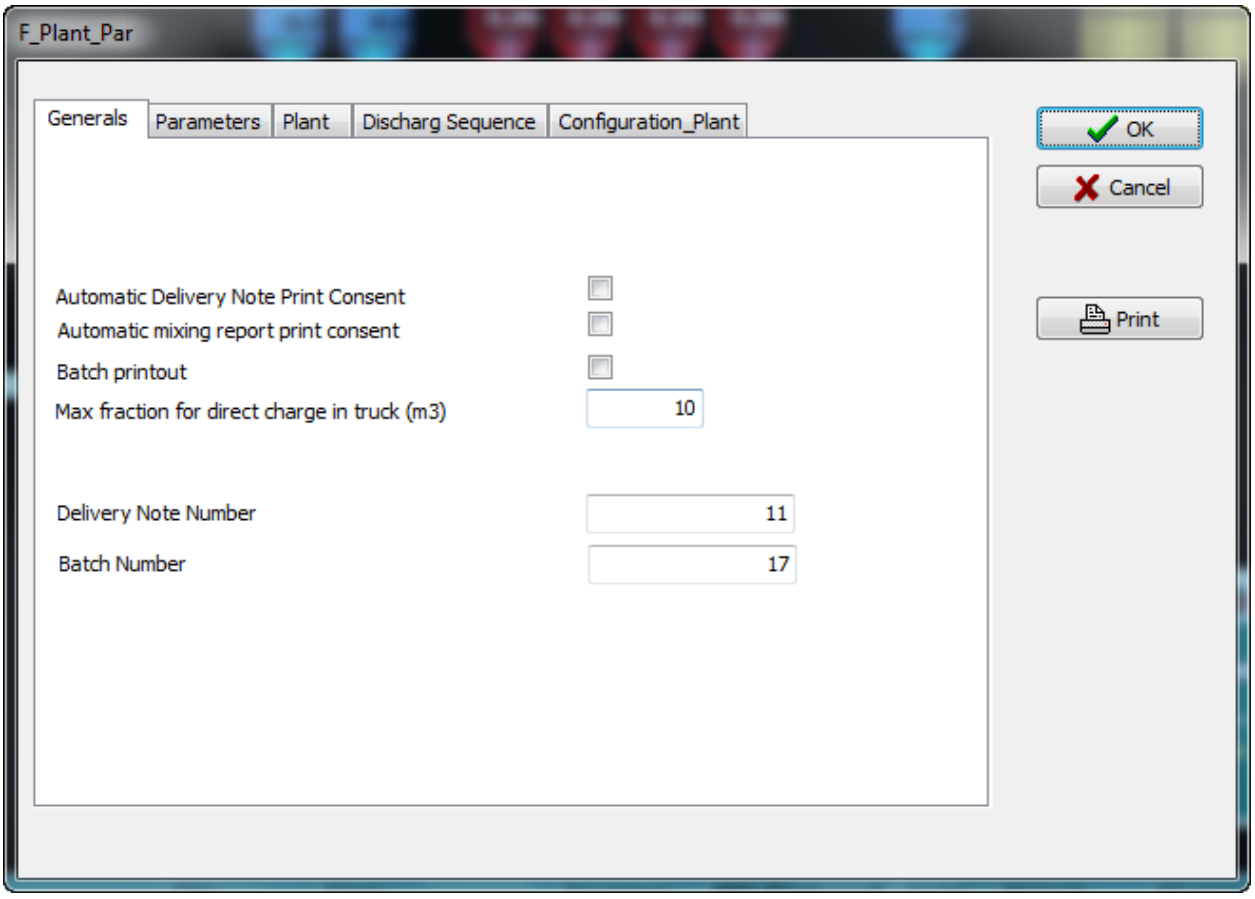
This is picture communication PLC and PC is OK.

2. Configuration system:

2.1. Plant Parameter: click **Menu → Configuration ->Plant parameters**

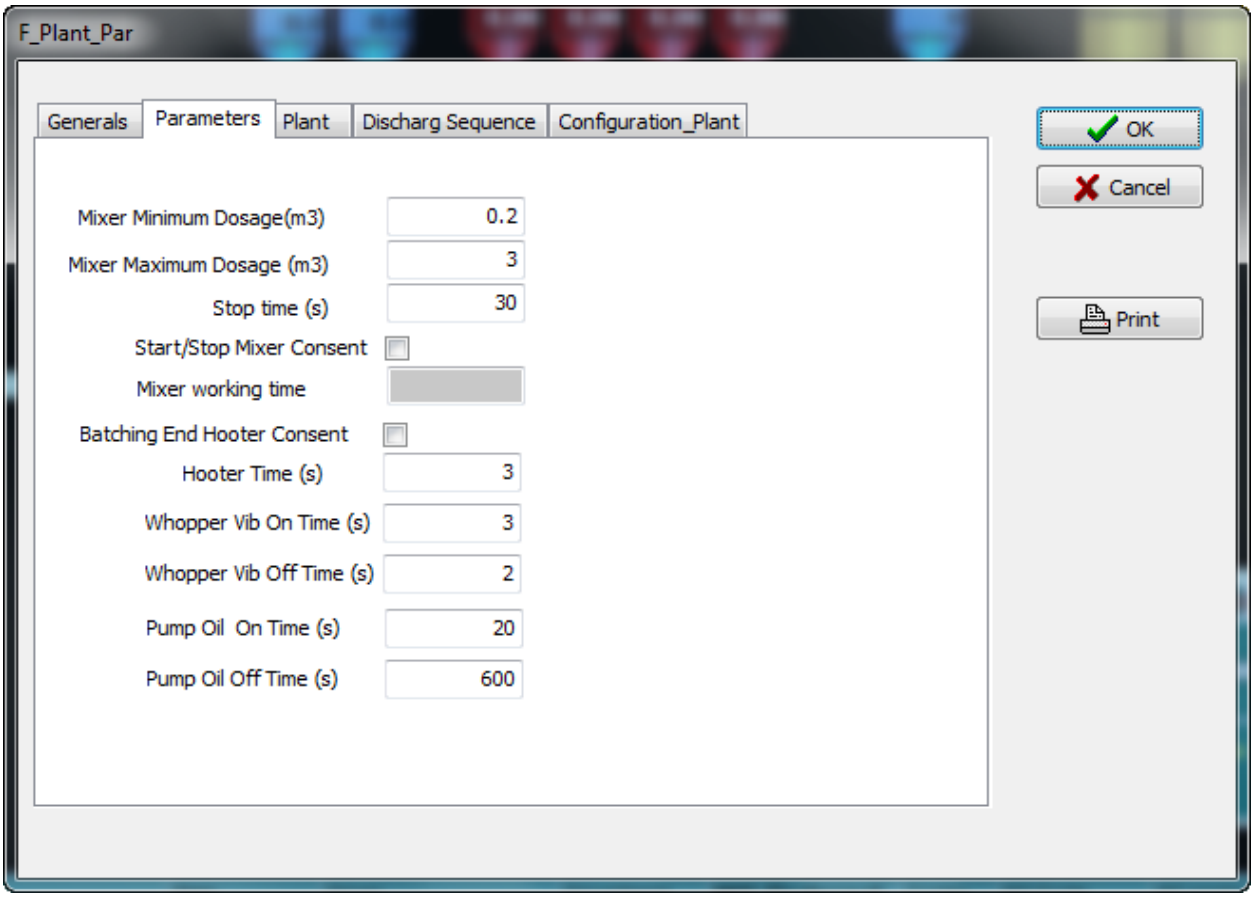
Selecting the *Plant Parameters* option, a data input mask with the batching plant general parameters is displayed.

Clicking the **[OK]** button, the modifications are saved ; whereas clicking the **[Cancel]** button, the mask is closed without saving the changes.



The Plant Parameters window is organized in pages that nest the various information; only the fields which are relevant to the plant configuration utilized are modifiable and manageable.

- **Auto delivery note print consent**: Automatically printing delivery note after an order is finished.
- **Auto mixing report print consent**: Automatically printing the detail batch mixing after an order is finished.
- **Batch printout** : Printing delivery note with details of materials Agg,Cem,Wa,Add.
- **Max fraction for direct charge in-truck**: max quantity of materials that can be dosed in one single fraction with a direct loading into truck mixed expressed in m^3.
- **Delivery note number**: Progressive number assigned for the delivery note issued automatically by the system at the end of the production cycles.



The mixer group will be enabled only if the configuration foresees the mixer.

- Field: **Mixer Minimum Dosage** - Format: **9.99** - Permissible values: **0.01 ÷ 9.99**.
  Mixer minimum dosage expressed in **m^3** below which the quality of the mix is affected.

- Field: **Mixer Maximum Dosage** - Format: **9.99** - Permissible values: **0.01 ÷ 9.99 e >= Dos. Min.Mixer.**
  Mixer maximum dosage expressed in **m^3**. If a batch with a volume (m^3) exceeding the mixer capacity is required, the supervisor will split the total amount in smaller batches.

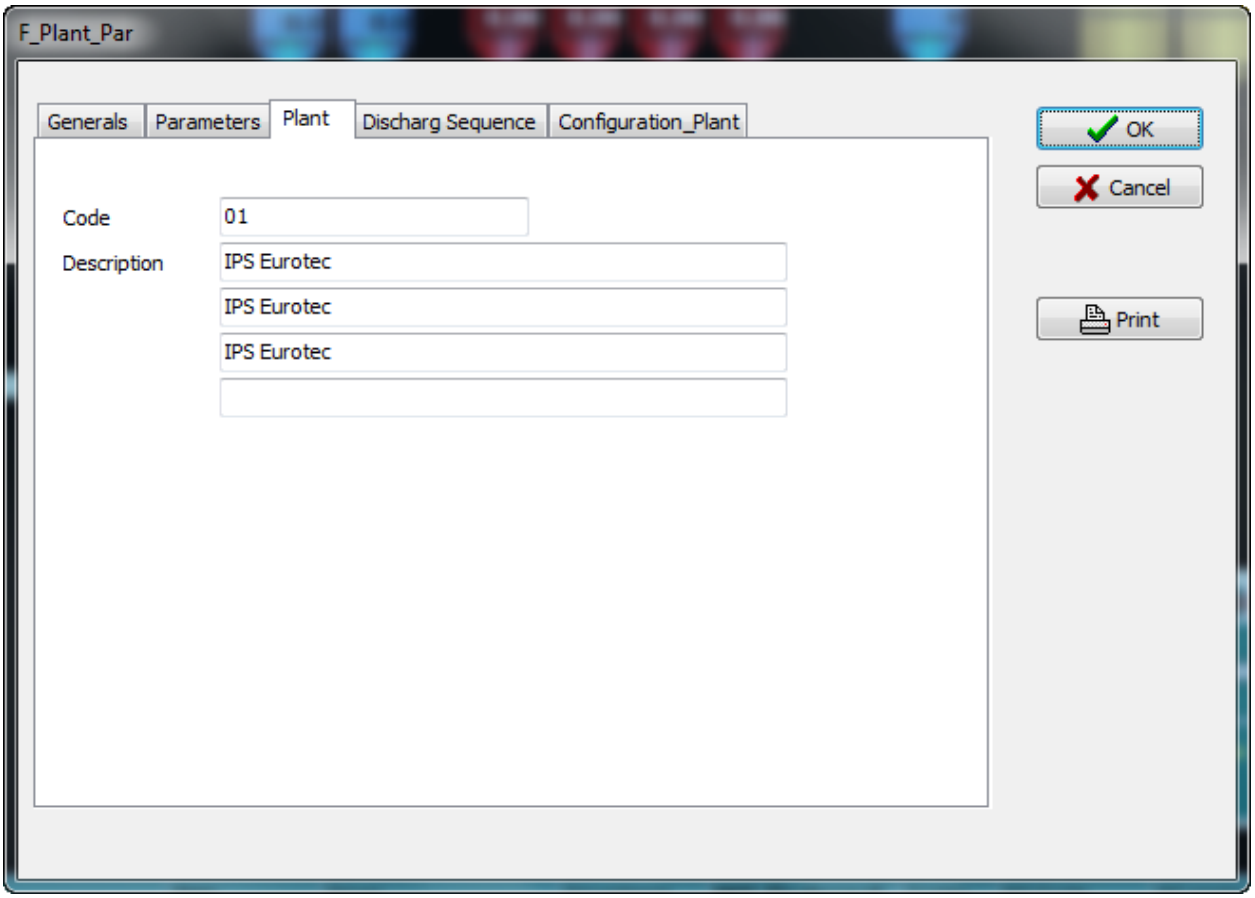
- Field: **Mixer Stop Time** - Format: **9999** - Permissible values: **0 ÷ 9999.**
  Mixer stopping time in case of inactivity, expressed in **seconds**.

- Field: **Mixer Stop Consent**
  Enables the mixer start/stop automatic.

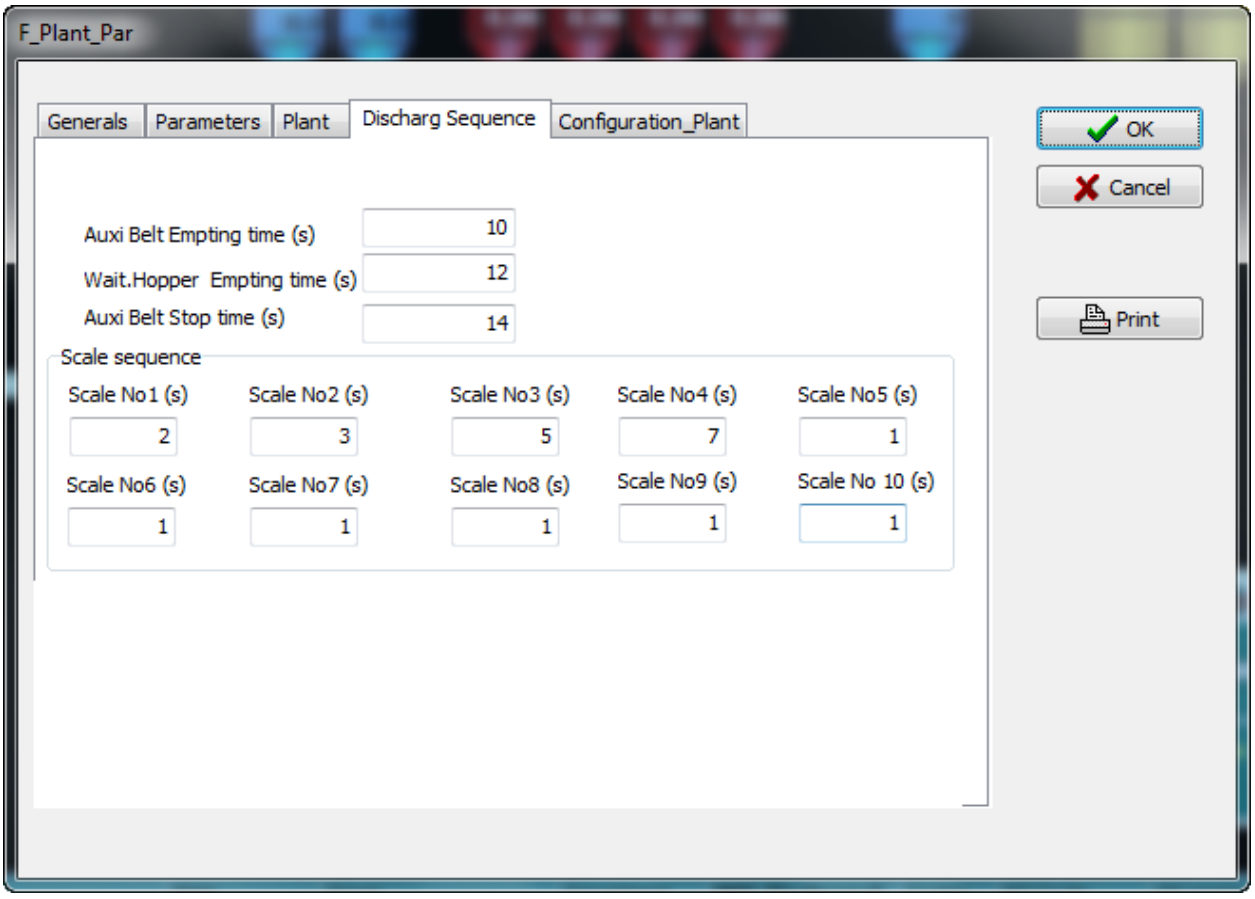
- Field: **Mixer Working Time** - Format : **hh:mm - Only output.**
  Counting of the mixer actual working time, expressed in **hh:mm**.
- Field: **Whopper Vib On Time**- Format : **99** - Permissible values: **0 ÷ 99.**
  Waiting hopper Vibrator to run On in this time period.
- Field: **Whopper Vib Off Time**- Format : **99** - Permissible values: **0 ÷ 99.**

Waiting hopper Vibrator to stop in this time period.

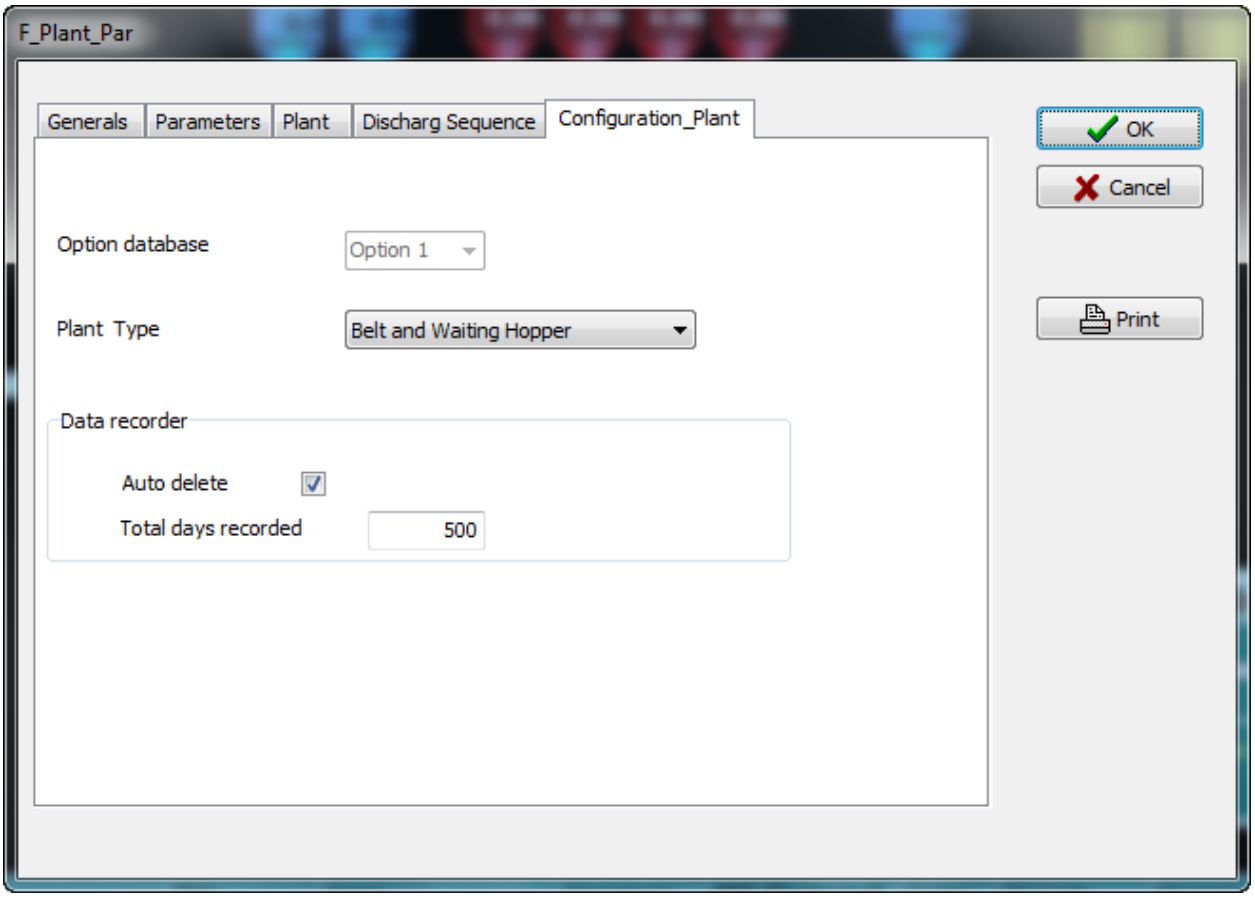
- Field: **Pump oil On Time**- Format : **999** - Permissible values: **0 ÷ 999.**
  Pump oil for mixer to run On in this time period.
- Field: **Pump oil Off Time**- Format : **999** - Permissible values: **0 ÷ 999.**
  Pump oil for mixer to stop in this time period.



Information plant name.it printed on header reports



- Field: **Aux belt emptying time** - Format: **99** - Permissible values: **0 ÷ 99**
  Belt conveyor emptying time expressed in **seconds**.
- Field: **Wait.Hopper emptying time** - Format: **99** - Permissible values: **0 ÷ 99**
  Aggregate waiting hopper emptying time expressed in **seconds**.
- Field: **Aux belt stop time** - Format: **99** - Permissible values: **0 ÷ 99**
  Last batching finished after this time Auxi. Belt conveyor will be to stop.
- Field: **Scale No 1** - Format: **99** - Permissible values: **0 ÷ 99**
  This is for delay Aggregate scale start discharge after conveyor belt running.
- Field: **Scale No 2** - Format: **99** - Permissible values: **0 ÷ 99**
  This is for delay Cement scale start discharge after conveyor belt running or waiting hopper open.
- Field: **Scale No 3** - Format: **99** - Permissible values: **0 ÷ 99**
  This is for delay Water scale start discharge after conveyor belt running or waiting hopper open.
- Field: **Scale No 4** - Format: **99** - Permissible values: **0 ÷ 99**
  This is for delay Admixture scale start discharge after conveyor belt running or waiting hopper open.



Plant Types :

- Mixer + Auxiliary conveyor belt + Aggregate waiting hopper
- Mixer + Auxiliary conveyor belt
- Mixer + Skip and weighing conveyor.
- Mixer + Skip

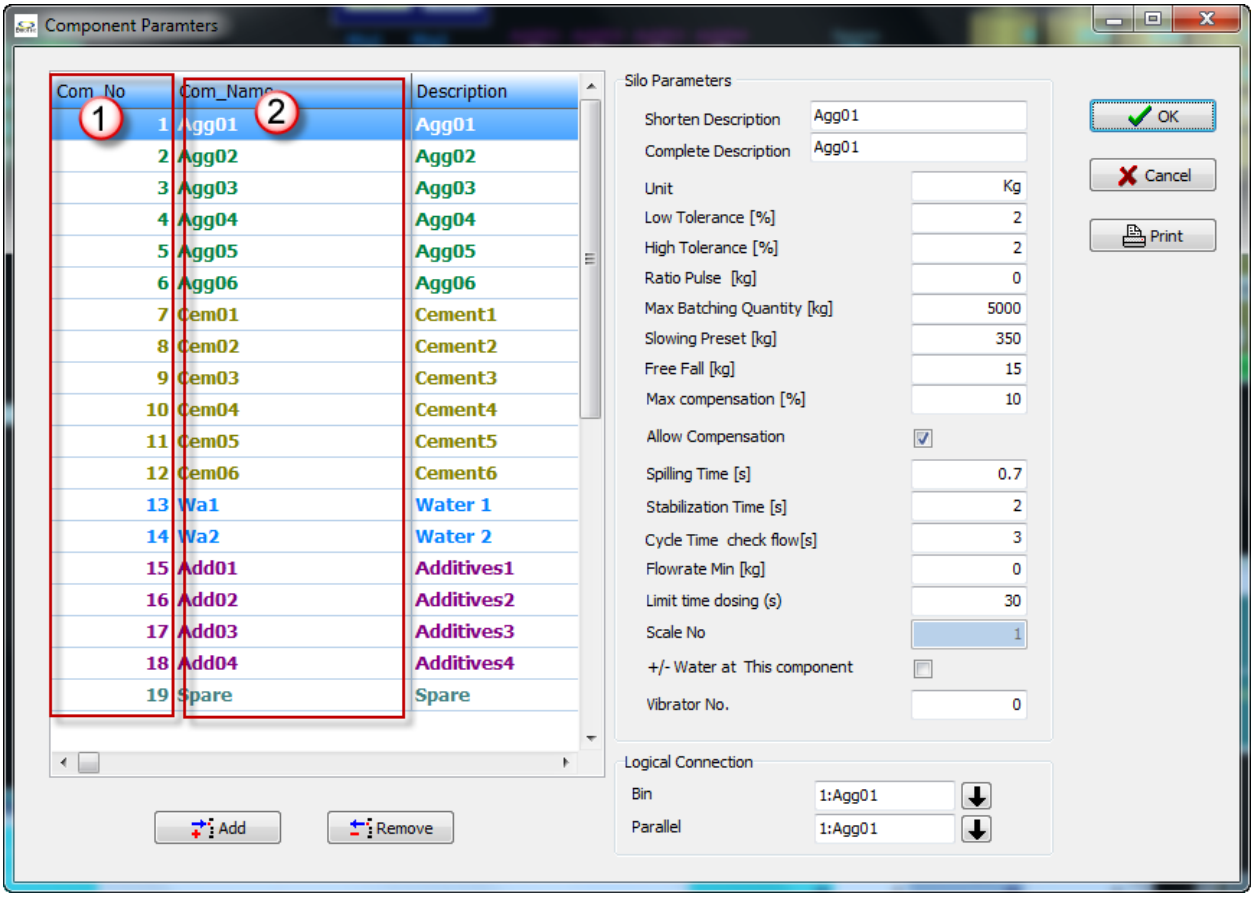
Data recorder:

- Click **Auto delete** : the software will automaticallydelete the old data.
- **Total recorded days** : The old data which is overdue this total days will be deleted.

2.2. Component Parameter: choose **Menu → Configuration -> Component**.

Selecting the ***Components*** option, an data input window will be appeared to enter the component data.

Clicking the **[OK]** button , the modifications are saved ; whereas clicking the **[Cancel]** button , the mask is closed without saving the changes.



Note: ① ComNo is number of the components and ② is Material name

- Field: **ShortDescription** - Format : **X(8)**
  Alphanumeric mnemonic description of the component.
- Field: **Complete Description** - Format : **X(40)**
  Complete description of the component.

- Field: **Supplier** - Format: **X(12)**
  Name of the component supplier.
- Field: **Low Tolerance (High Tolerance)** - Format: **99.9**

Values expressed in percentage within which the control system automatically confirms the result obtained from the component dosage.

- Field: **Spilling Time** - Format: **99.9**
  Time expressed in seconds for spilling the components batched with the scales. The spilling is a phase of the weighing process which occurs any time the free fall correction is too high and the advance stop (pre-stop) does not allow the material to remain within the preset batching tolerances. In this case, the system restart the material flow for the preset time and respectable stabilization time , repeats the operation till the low tolerance is respected.

- Field: **Allow compensation** - Format: **Tick or no Tick**
  Tick : allow this component compensation tolerance last batch to next batch.
- Field: **Max compensation[%]** - Format: **99.9**
  Limit compensation error last batch to next batch.

Example : Last batch target 500 kg ,actual 550kg -> Tolerance is 50kg.
Max compensation setting is 5% -> Limit compensation =500*5%=25kg.
Next batch target is 500-25=475kg (although tolerance is 50kg)
Purpose is to avoid overload scale or concrete instability.

- Field: **Ratio pulse** - Format: **0.99**
  If this component using flowmeter then this parameter is ratio to calibration.

- Field: **Max batching quanlity** - Format: **9999.99**
  Limit quanlity for this component / batch.

- Field: **Slowing preset** - Format: **9999.99**
  Begin dosing the system will be dosed fast (coarse) : open two gate.
  Until (target-slowing preset) the system will be dosed slow (Fine) : open one gate.
- Field: **free fall** - Format: **9999.99**
  Value dosed >= (target-free fall) the system will be spilling mode.
  Untill value dosed >= Low tolerance the system stop.

- Field: **Spilling time** - Format: **0.99**
  This value is On time in spilling mode.
- Field: **Stabilization time** - Format: **0.99**
  This value is OFF time in spilling mode.

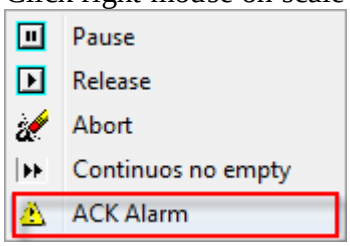
- Field: **Cycle time check flow** - Format: **0.99**
  Cycle to the system check flow rate dosing .

If flow rate current < Field: **Flow rate min then alarm appear.**
Ack alarm to reset this alarm.

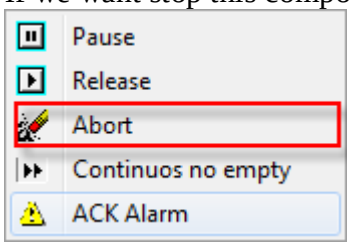
- Field: **Limit time dosing** - Format: **999**
  Pass this time but unfinished, alarm appear and the system stop dosing.

If we want dosing next then Ack alarm.

Click right mouse on scale and select ACK Alarm



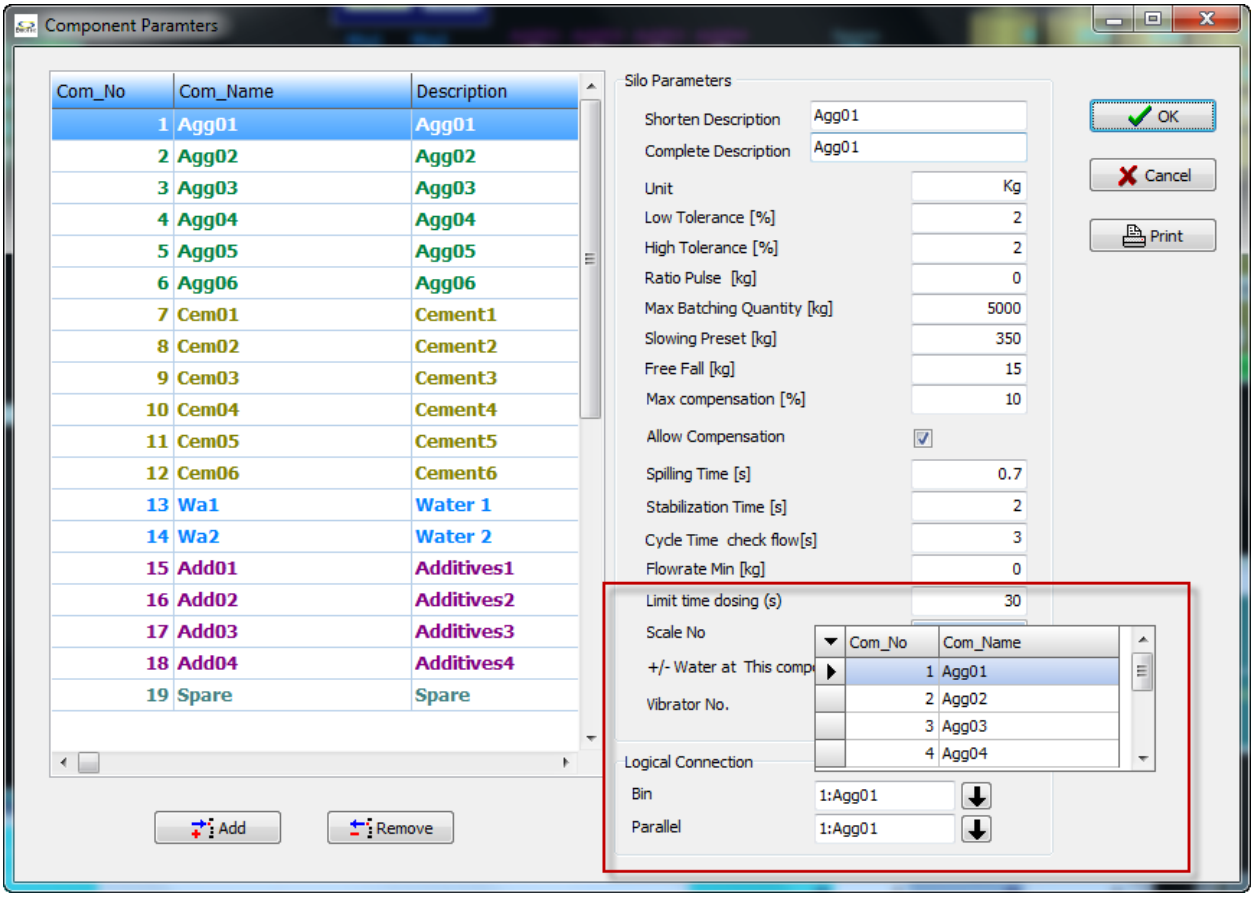
If we want stop this component and dosing next component , we click **Abort .**



❑ Field: **+/- Water at this component** - Format: **Tick** or **no Tick**

If this component is water , we Tick

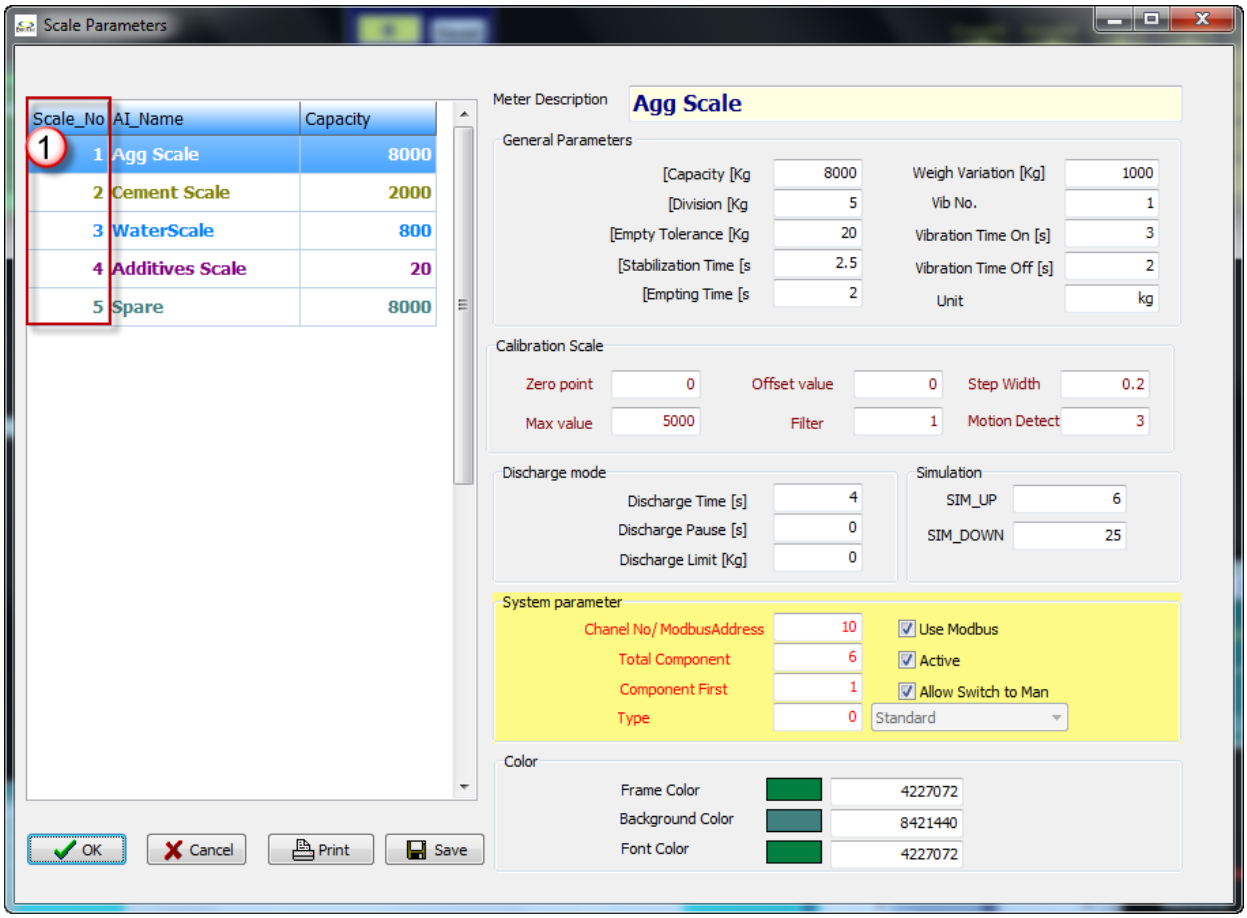
all other components , we don't Tick.



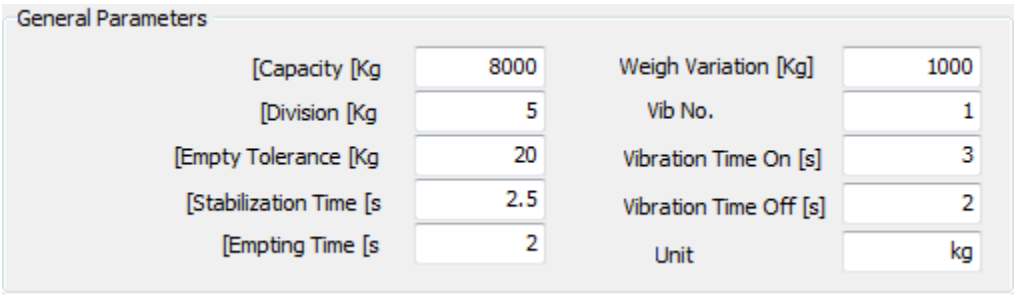
Selecting the *Logical Connection* option , an input mask is displayed to introduce the data which is relevant to the *BinISilo* and *BinISilo Parallel.*

This is another way to modify the above values with respect to the *Components* menu and it assumes a special significance if it is performed during an HALT of the system. In fact, whenever the current setting must be modified for one or more cycles, the following operations shall be carried out:

2.3. Meter Parameter: Choose **Menu → Configuration-> Meter parameter**.



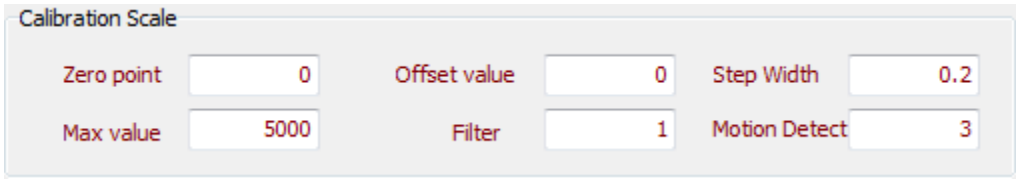
- Field: **Meter Description** - Format: **X(20)**
  Alphanumeric mnemonic description of the meter.



- Field: **Capacity** - Format: **99999.999** - Permissible values: **0.001 ÷ 99999.99**
  Capacity of the scale; for weight scales the capacity is equal to the full scale.
- Field: **Division** - Format: **99.99** - Permissible values: **0.01 ÷ 99.99**
  Division of the scale, expressed in **kg.**

- Field: **Empty Tolerance** - Format: **999.99** - Permissible values: **0.00 ÷ 999.99** and < **Capacity.**
  For the scales the field expresses the value within which it can be considered empty. The empty tolerance expresses a value in kg within which the scale can be theoretically considered as empty, because of the incrustations which can form on the weight scale after several batches. This value will be used by the control system within an acceptable tolerance to start the batching or to start the empty time of the belt conveyors.
- Field: **Stabilization Time** - Format: **9.9** - Permissible values: **0.0 ÷ 9.9**
  The field specifies, in seconds, the time lag from the conclusion of the component loading operation, after which the control system carries out the tolerance tests. The stabilization time is necessary for the computer to check the component weight on the scale after the free fall and after the stabilization of the weighing hopper. This weight is basic importance for an accurate check of the weight as well as to carry out more accurate batching operations.
  The stabilization time for volume batched products is used to accept occasional counts caused by the inertia of the feeding.
- Field: **Emptying Time** - Format: **99** - Permissible values: **0 ÷ 99**
  The field specifies the necessary time for empty scales expressed in seconds. The emptying time is the time needed by the scales to discharge the material until the weight scale are empty, i.e. within the empty tolerances set in the relevant variable. The preset times are expressed in seconds.

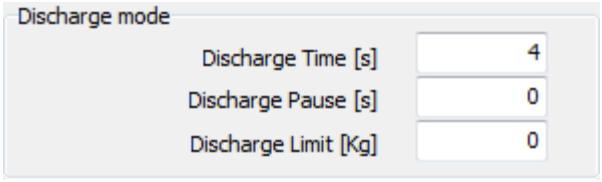
- Field: **Weigh Variation**- Format: **99999** - Permissible values: **0 ÷ 99999**
  When weigh current value under this value Vibrator will active ON/OFF
- Field: **Vibration Time On**- Format **9.9** - Permissible values: **0.0 ÷ 9.9**
  Time value for Vibrator On.
- Field: **Vibration Time Off**- Format **9.9** - Permissible values: **0.0 ÷ 9.9**
  Time value for Vibrator Off.
- Field: **Vib No**: only use for Engineer develop the software.
- Field: **Unit**: Name unit Kg or lit….



- Field: **Zero point** - Format: **99999.99** - Permissible values: **0 ÷ 99999.99**
  Value to a reading of 0 kg of the scale.

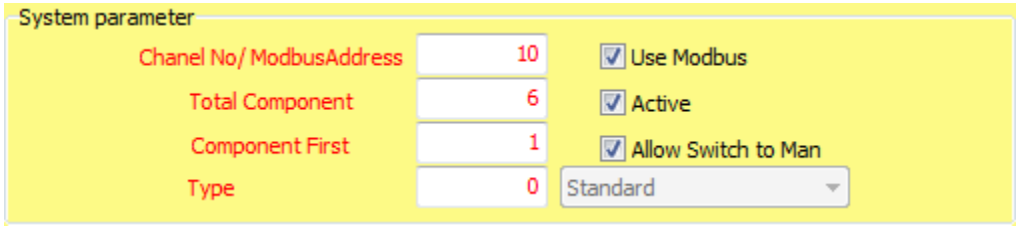
- Field: **Max value** - Format: **99999.99** - Permissible values: **0 ÷ 99999.99**
  Value to the reading of full scale, expressed in **Volt**.

These field only use when the scale use analog to connect to PLC.
If the output analog from Indicator is from 4-20mA for 0Kg to Capacity Scale then
Zero point =0 and Max value = Capacity .Ex. 4-20mA for 0 to 8000 kg,Zero point =0 and max value=8000.



- Field: **Discharge Limit** - Format: **9999**
  It is the weight threshold expressed in Kg, first weight will discharge greater Dischrgae limit which the split-discharge is operated (discharge/discharge stabilization) and if this value =0 kg then the discharge is continuous.

- Field: **Discharge Time** - Format: **99.9**
  It indicates the scale opening time in seconds when the scale is in split-discharge phase
- Field: **Discharge Pause Time** - Format: **99.9**
  Time in seconds between two subsequent open during the discharge phase when the scale is in split-discharge phase.



- Field: **Chanel No/ModbusAddress** - Format: **99**

If this scale use analog , Chanel No is from 1-10. 1-8 analog on the module SM1231 0-7.

9,10 is analog on the CPU 1224.

If this scale use Modbus , this value is Modbus address.

- Field: **Use Modbus** - Format: **Tick or noTick.**

-Tick is this scale use Modbus.
-No Tic this scale use analog.

- Field: **Total component**s- Format: **99.**

Total component (total material) into this scale.

- Field: **Component** first- Format: **99.**

Component No first into this scale.
If total =6 and component first =1 then component from 1 to 6 will be into this scale.

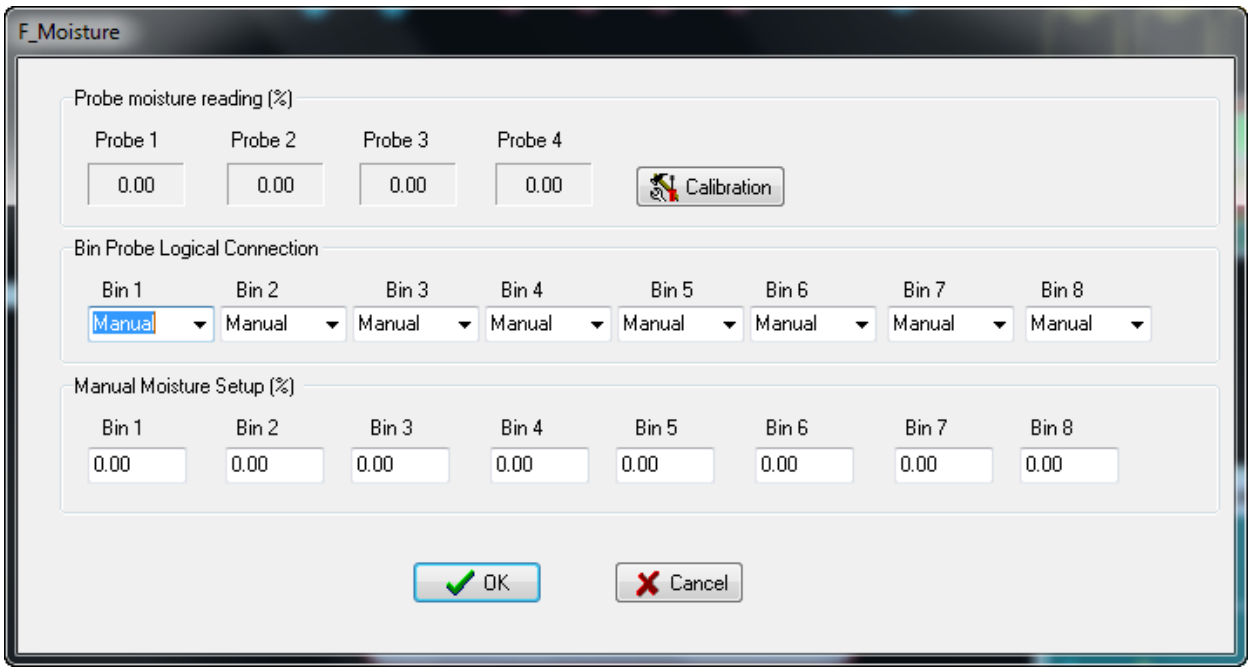
If total =6 and component first =7 then component from 7 to 12 will be into this scale.

- Field: **Type** - Format: **0-3**

0: the cumulative weight.
1: the reduce weight.
2: Flowmeter with hopper or depansor.
3: flowmeter direct to mixer or truck.

2.4. Aggregate moisture: Choose Menu → Configuration → Aggregate moisture.

Selecting the *Moisture* option, an input window will be opened thus allowing the aggregate manual and automatic moisture data to be entered.



The values automatically are detected by the available probes which are displayed on the first line of the window, in the boxes , it is identified as 'Probe moisture reading (%)'.

In the boxes 'Bin-Probe logical connection' it is possible to specify whether the moisture of the relevant bin is automatically read by a probe (and specify which probe) or whether it is manually set by the operator ('Manual mode' selection).

It allows to Certificate or not the continuos moisture compensation which is revealed during the aggregate dosage.

There is the possibility to assume a shape of the reading parameters of the probes by specifying the moisture values, appearing when tension of 0 and 10 Volt are measured on the probes.

Here follows the descriptions of the window boxes:

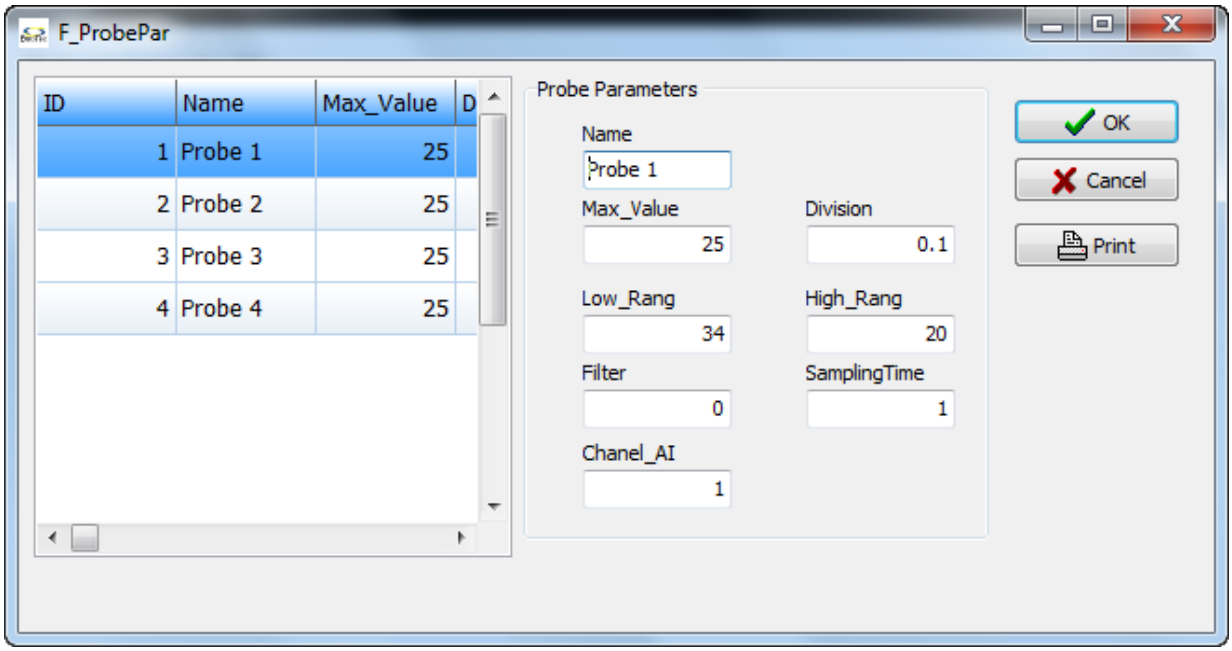
- Field: **Moisture revealed from probes - Probe 1..4 - Only output**
  The moistures are reported in **percentage** form, to be read from the hygrometric probes; reading corresponds to the effected revelation made at window's visualization.

- Field: **Association Bin-Probe**
  In accordance to the selection setted on each bin, we will get the following behavior

- **Manual**
  The moisture is set by the operator in the boxes 'Manual moisture setup'

- **Probe 1..4**
  The moisture is automatically read by the specified hygrometric probe and the value which can be present in the box 'Manual moisture setup' is ignored. It is also possible to connect the same probe to several bins.

❑ Field: **Manual moisture setup - Bin 1..8** - Form: **99.99 percentage**
It allows to setup manually the moisture values per each bin, who will be considered from the system, only if in the fields "Association bin-probe" the "Manual"-selection is setted.

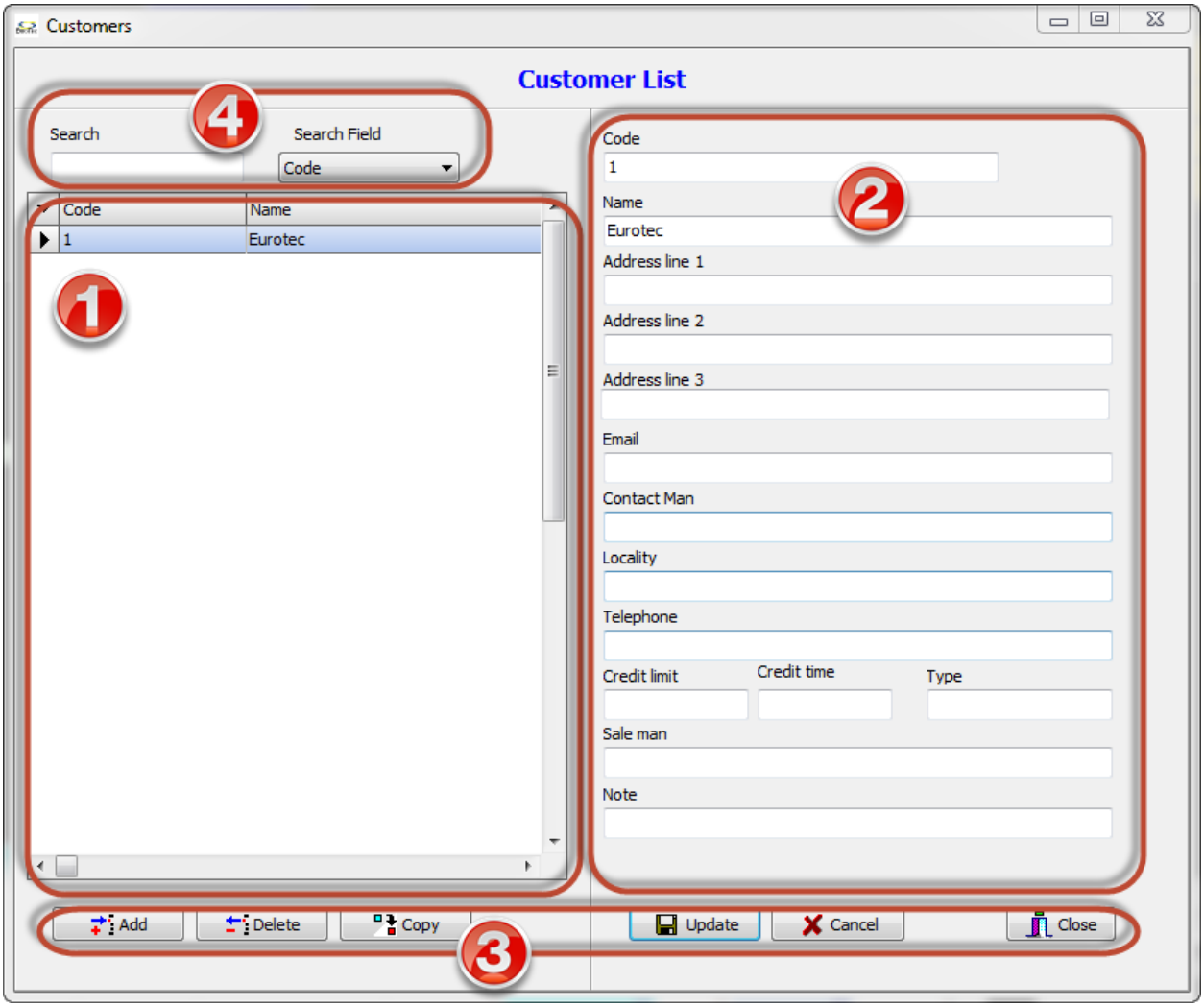


❑ Field: **Setup probe parameters - Probe 1..4** - Form: **±99.99 percentage**

- **Low range**
  It allows to setup the moisture percentage value when voltage revealed on the probe is of 0 Volt.
- **High range**
  It allows to setup the moisture percentage value when voltage revealed on the probe is of 10 Volt.

3. Database:

3.1. Customers: Menu Database - Customers



Grid of Customer list: Click row to select current customer.

Information details of current customer.

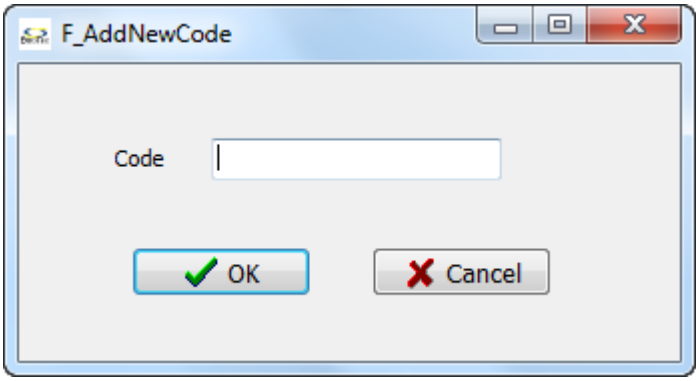
Buttons:

- Add Button: Add new customer.
- Delete Button: Delete current customer selected.
- Copy Button: Create new customer having the same customer information but with other code.
- Update Button: After editing information in , click this button to save.

- Button cancel : after edit information in  click this button to don’t save.
- Button close : exit dialog return main display.

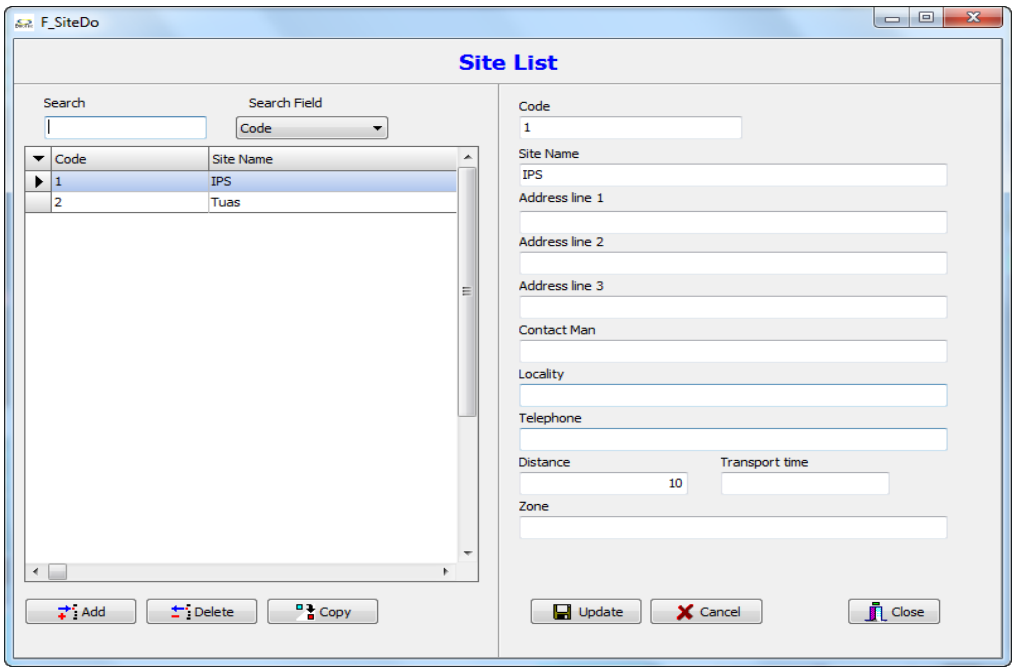
Steps to create a new customer:

- Click button Add in 



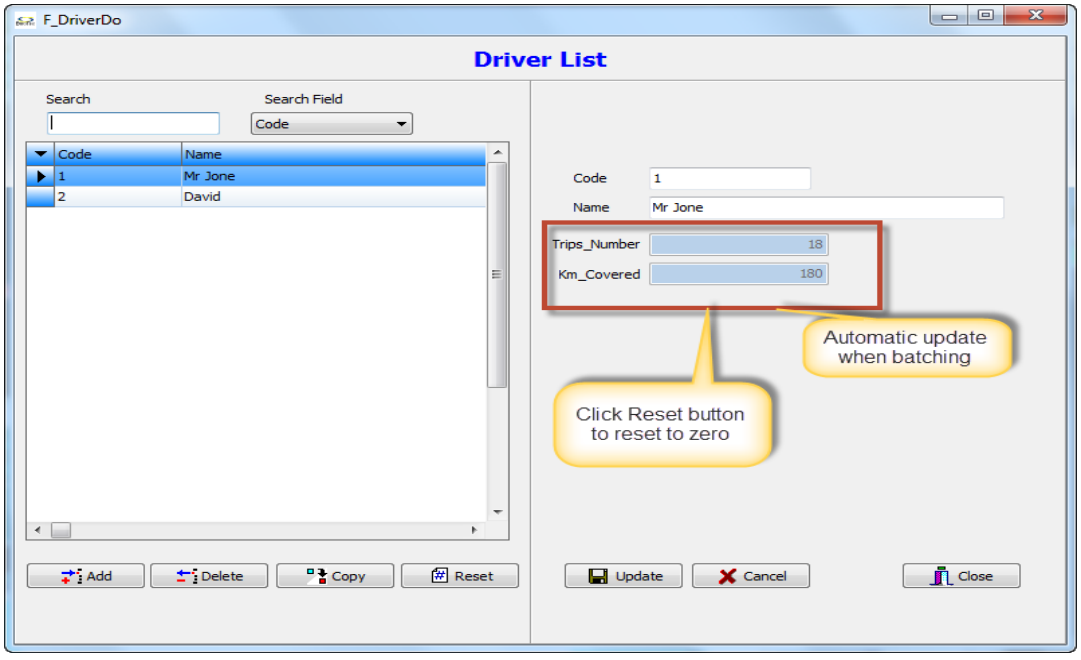
- Type customer code
- Enter information of customer in 
- Click Update button in  to save

3.2. Site: Menu Database - Site



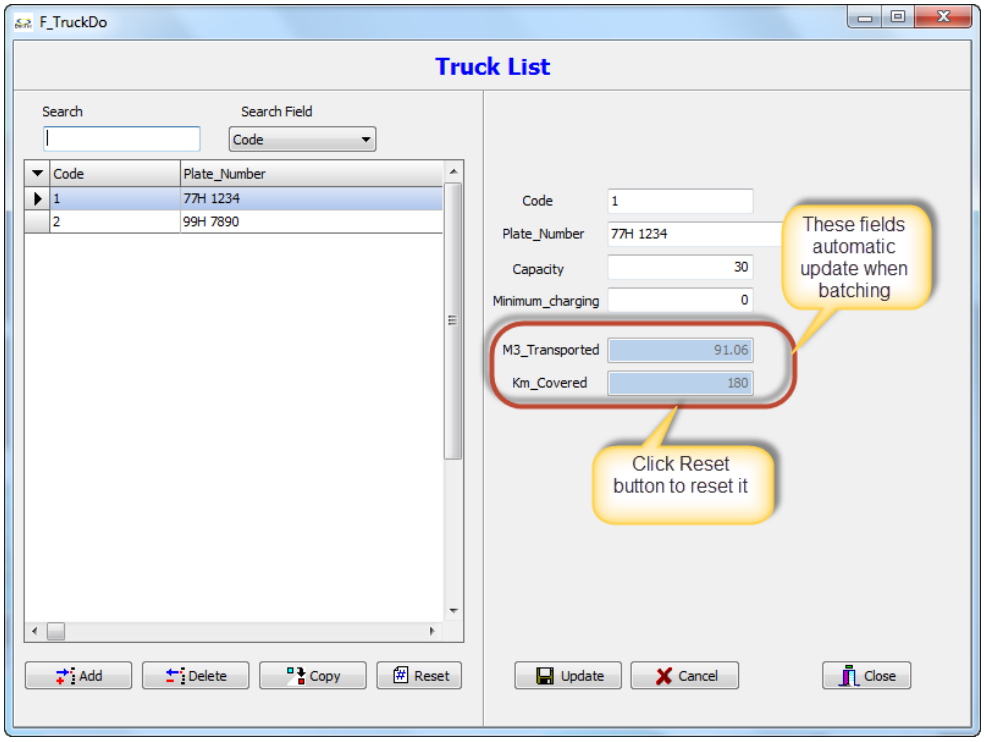
The same customer

3.3. Driver: Menu Database - Driver



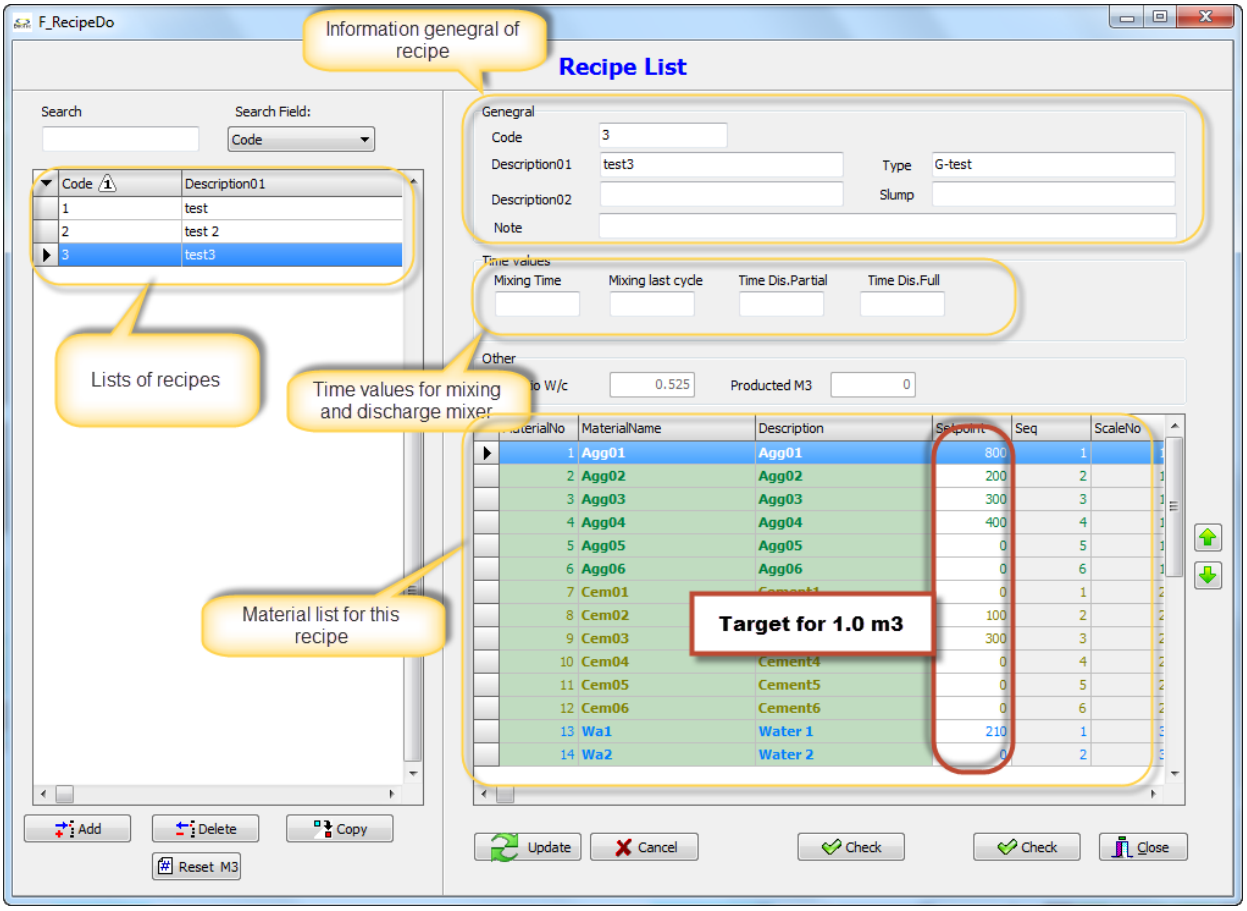
The same customer

3.4. Truck: Menu Database - Truck



The same customer

3.5. Recipe: Menu Database - Recipe

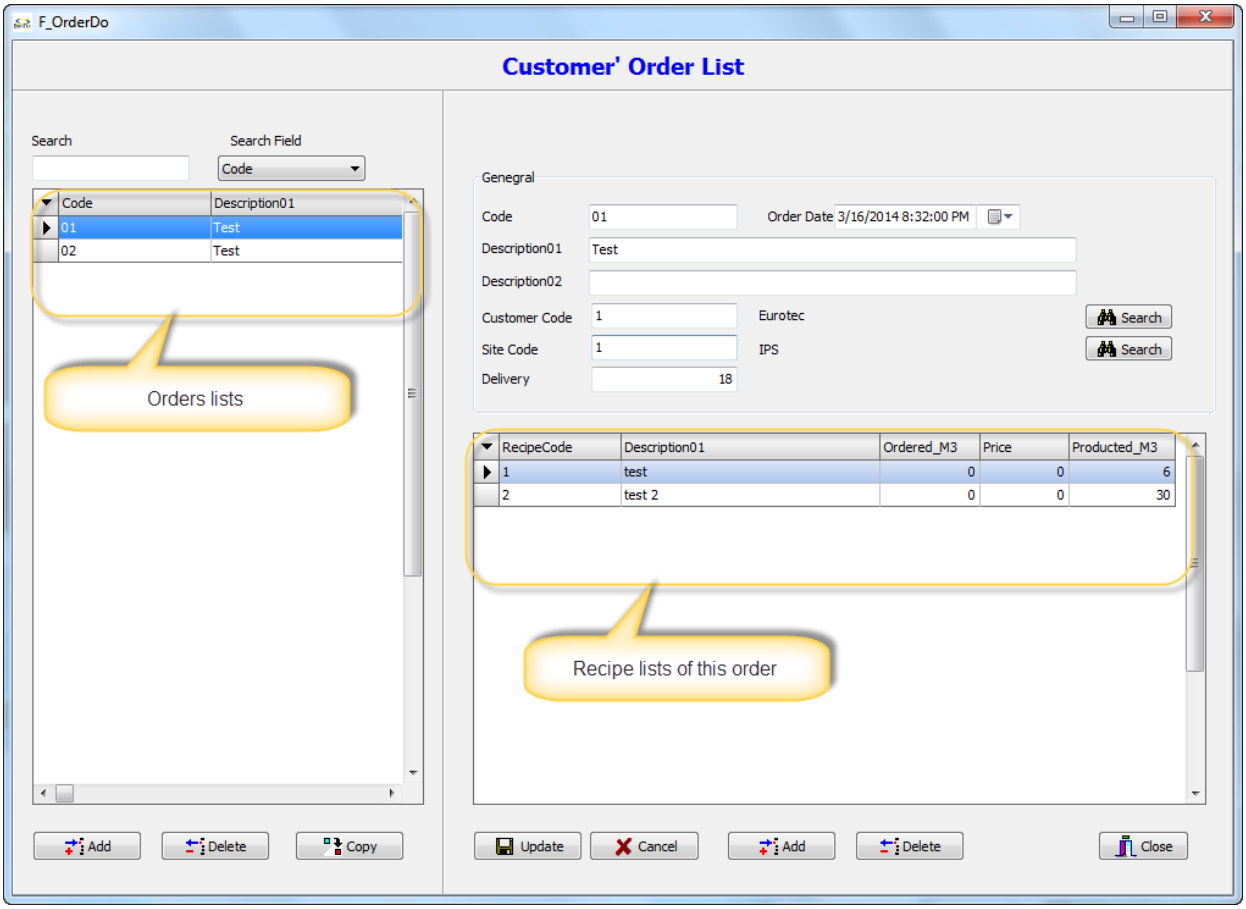


Steps to create new recipe:

- Click Add button ①
- Enter new code recipe.
- Enter information for recipe in ②
- Enter time value in ③
- Enter setting points value in ④
- Click Update Button ⑤

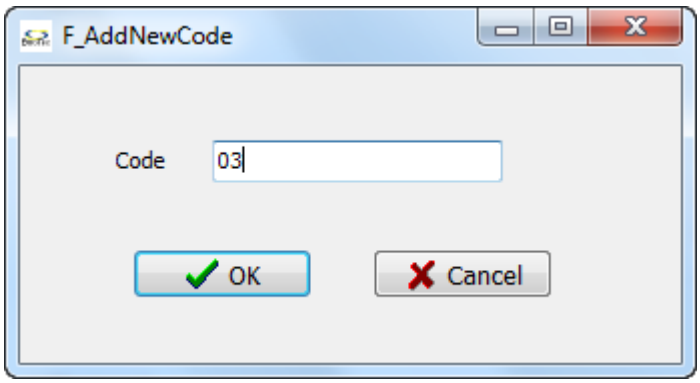
We also create new recipe but if it's the same with the existing recipe, click Copy button.

3.6. Customer order: Menu Database - Customer order

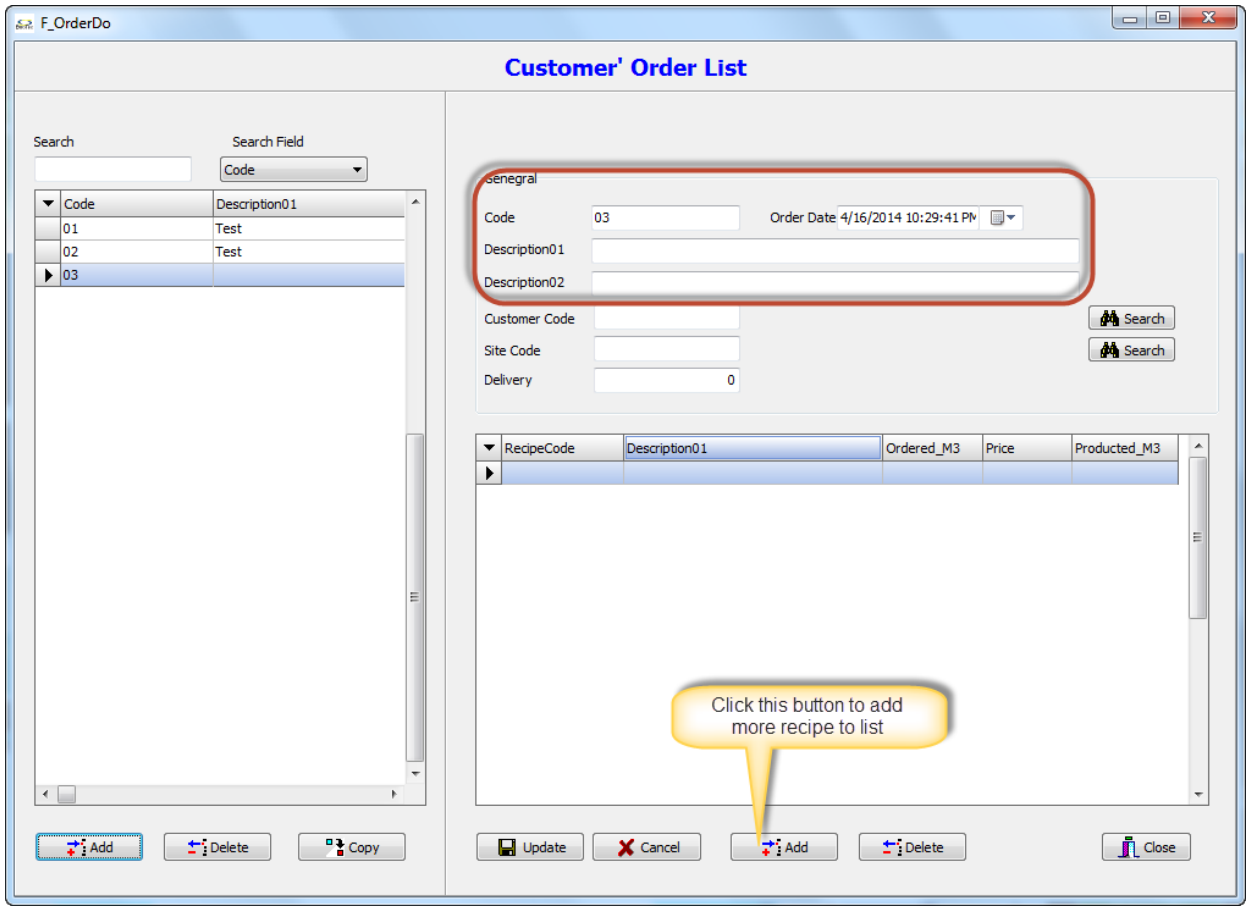


Steps to create a new customer's order:

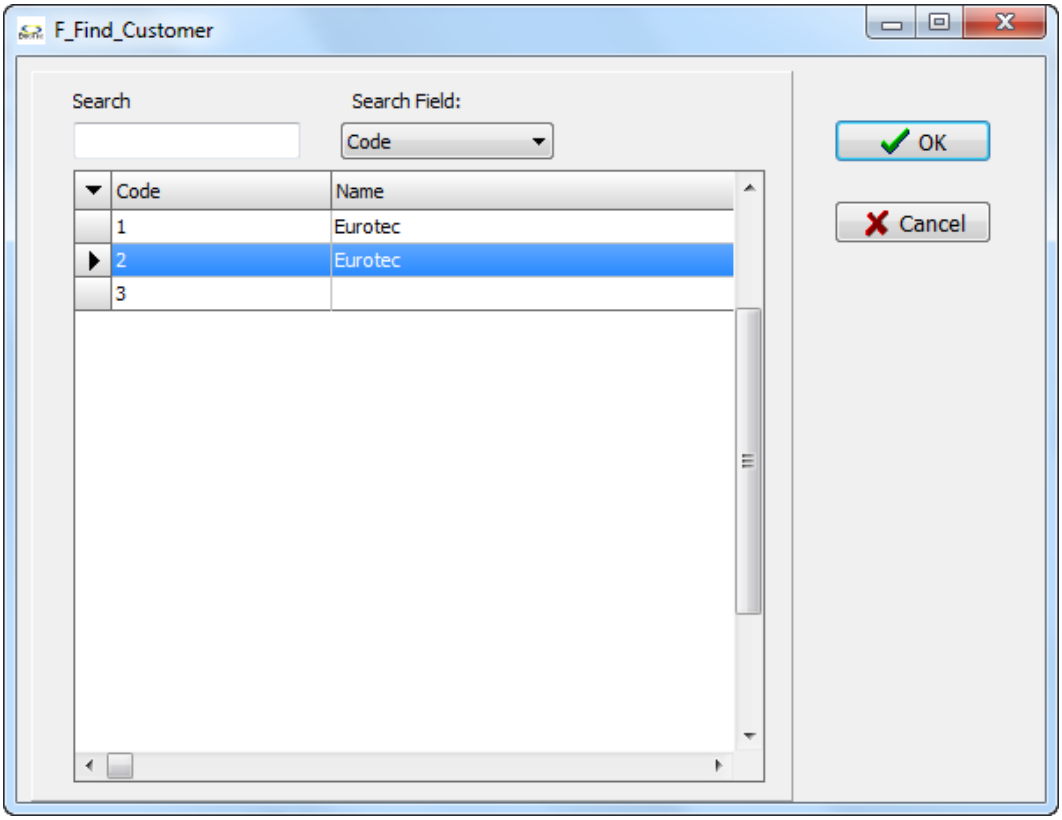
- Click Add button.
- Enter Order code:



- Enter information.



- Select customer from customer list by clicking search button.

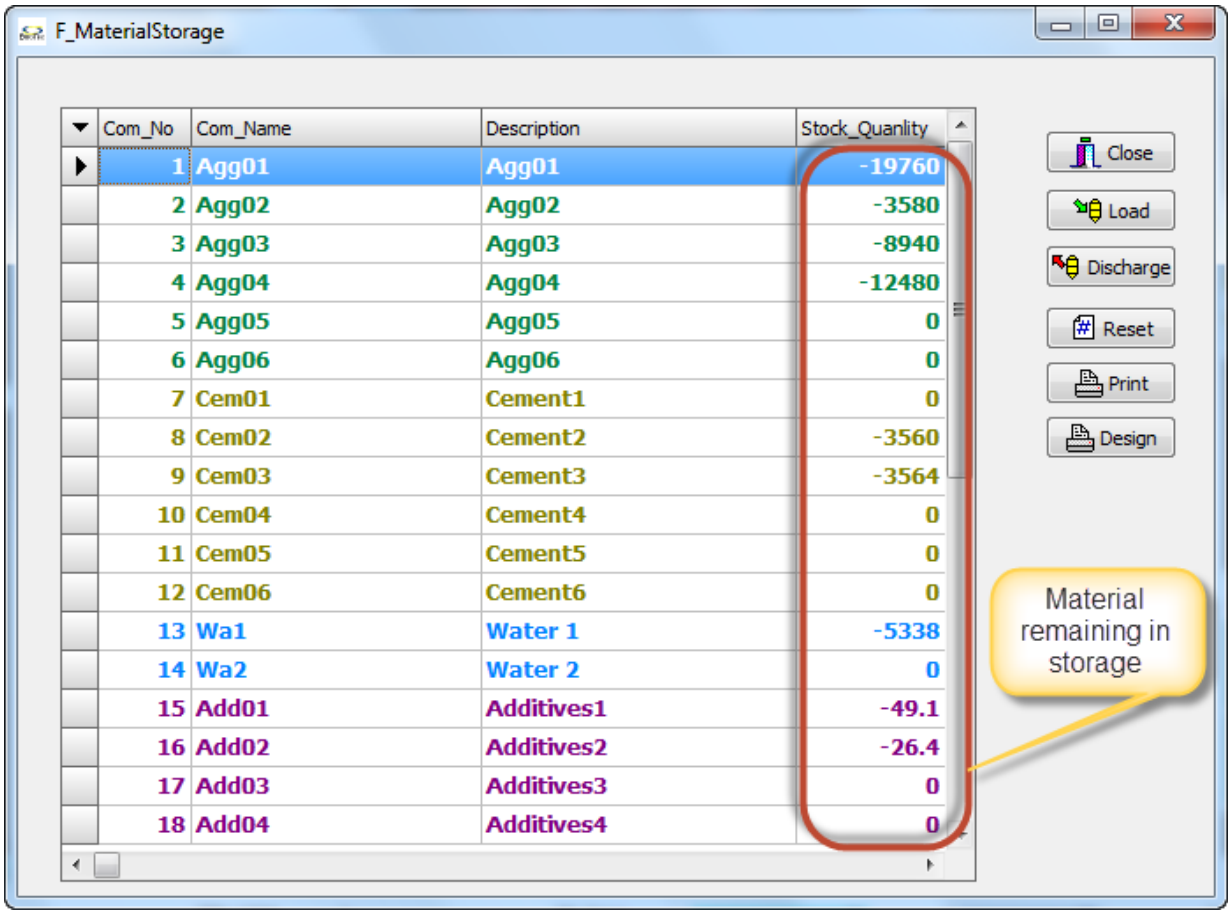


- Select site from site list by clicking search button.
- Click Add button to insert recipe.

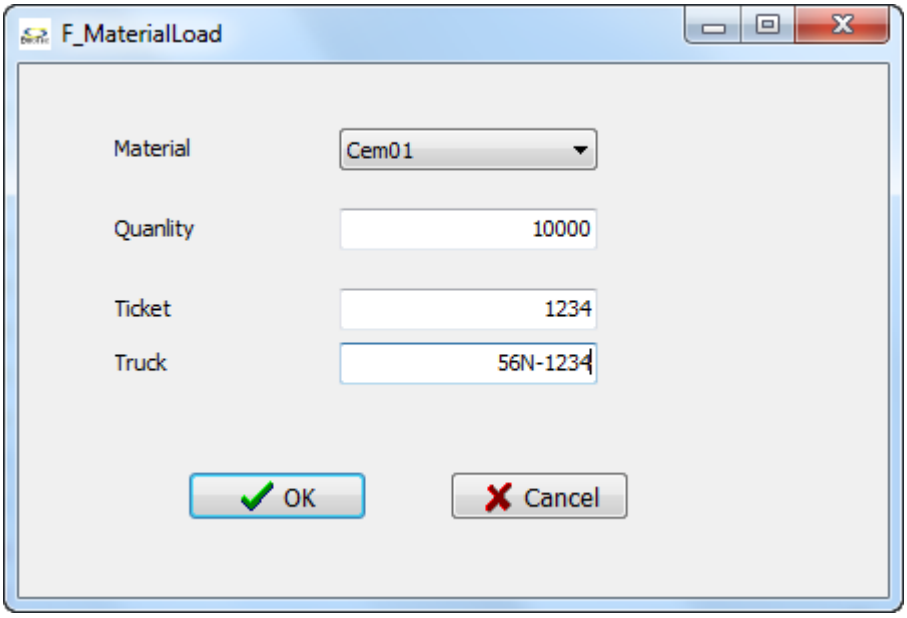


- Click Update button to save.

3.7. Raw materials management: Menu Database - Raw materials



- Enter your materials into storage



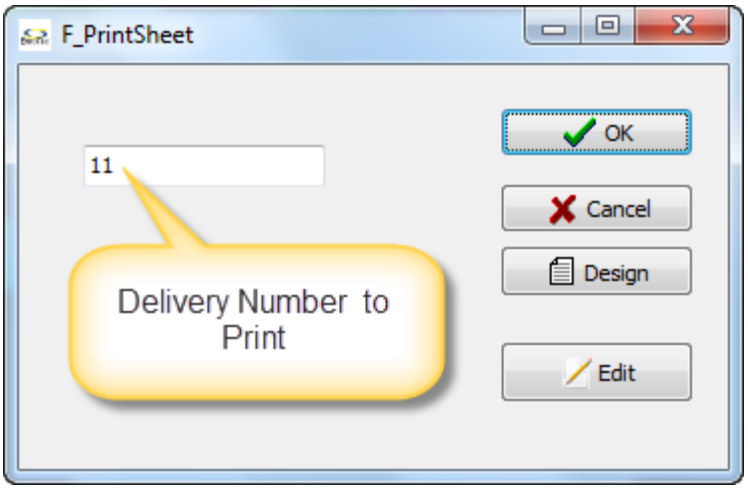
- Select materials into storage
- Enter the volume into **Quantity** field.
- Enter ticket number.
- Enter name plate truck.
- Click OK.

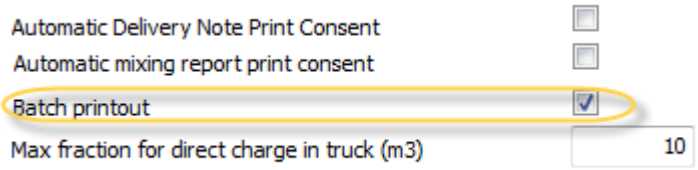
Note: Reset button to reset storage to 0.

Inventory volume automatically unless we mixed concrete.

4. Printout report:

4.1. Report of delivery note: Menu Printout-Reports-Delivery Note





DELIVERY SHEET

Delivery No. 11

PLANT : 01 IPS Eurotec
ADDRESS : IPS Eurotec
TEL : IPS Eurotec

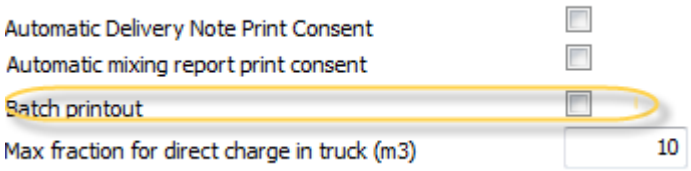
CUSTOMER : Eurotec
ADDRESS :

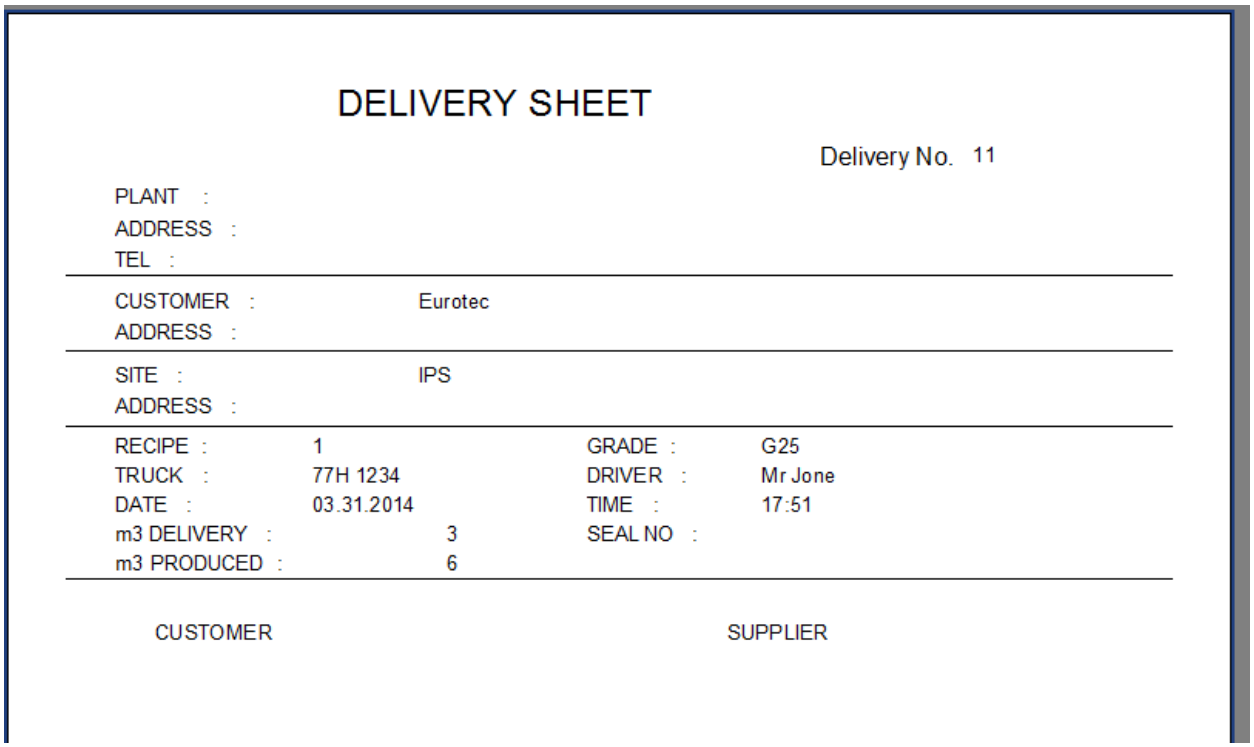
SITE : IPS
ADDRESS :

RECIPE : 1 GRADE : G25
TRUCK : 77H 1234 DRIVER : Mr Jone
DATE : 03.31.2014 TIME : 17:51
m3 DELIVERY : 3 W/C 1.00
m3 PRODUCED : 6 SEAL NO :

Detail batching

STT	Code Material	Auto/Man	Recipe	Moist %	Target	Actualy	Err	%	Unit
1	Agg01	Auto	250	0.00	750	740	-10	-1.3	kg
2	Agg03	Auto	200	0.00	600	595	-5	-.8	kg
3	Agg04	Auto	100	0.00	300	300	0	.0	kg
4	Cem03	Auto	100		300	296	-4	-1.3	kg
5	Wa1	Auto	100.0		300.0	295.0	-5.0	-1.7	kg
6	Add01	Auto	8.00		24.00	23.35	-0.65	-2.7	kg





DELIVERY SHEET

Delivery No. 11

PLANT :
ADDRESS :
TEL :

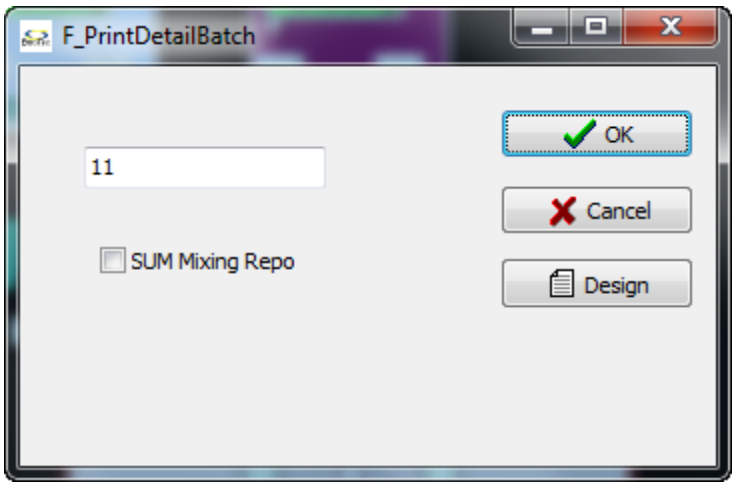
CUSTOMER : Eurotec
ADDRESS :

SITE : IPS
ADDRESS :

RECIPE :	1	GRADE :	G25
TRUCK :	77H 1234	DRIVER :	Mr Jone
DATE :	03.31.2014	TIME :	17:51
m3 DELIVERY :	3	SEAL NO :	
m3 PRODUCED :	6		

CUSTOMER SUPPLIER

4.2 Report of Mixing report: Menu Printout-Reports-Mixing report



Print batching details

01
IPS Eurotec

Mixing Report

Delivery No : 7

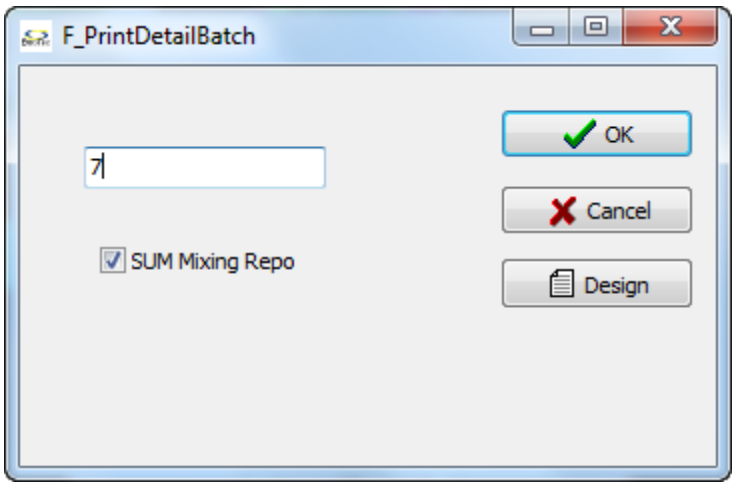
Order No : 01 Truck : 1 Driver: 1
Recipe: 2 Total Quanlity : 6.00

Batch No: 1 Date: 31/03/2014 16:27:43 W/C 0.67 0.67 Quanlity : 3.00

STT	Code Material	Auto/Man	Recipe	Moist %	Target	Actualy	Err	%	Unit
1	Agg01	Auto	860	0.00	2580	2535	-45	-1.7	kg
2	Agg02	Auto	200	0.00	600	595	-5	-.8	kg
3	Agg03	Auto	300	0.00	900	890	-10	-1.1	kg
4	Agg04	Auto	600	0.00	1800	1770	-30	-1.7	kg
5	Cem02	Auto	200	0.00	600	590	-10	-1.7	kg
6	Cem03	Auto	100		300	294	-6	-2.0	kg
7	Wa1	Auto	200.0		600.0	589.0	-11.0	-1.8	kg
8	Add02	Auto	1.50		4.50	4.40	-0.10	-2.2	kg

Batch No: 2 Date: 31/03/2014 16:31:37 W/C 0.67 0.67 Quanlity : 3.00

STT	Code Material	Auto/Man	Recipe	Moist %	Target	Actualy	Err	%	Unit
1	Agg01	Auto	860	0.00	2625	2580	-45	-1.7	kg
2	Agg02	Auto	200	0.00	605	600	-5	-.8	kg
3	Agg03	Auto	300	0.00	910	900	-10	-1.1	kg
4	Agg04	Auto	600	0.00	1830	1800	-30	-1.6	kg
5	Cem02	Auto	200	0.00	610	600	-10	-1.6	kg
6	Cem03	Auto	100		306	302	-4	-1.3	kg
7	Wa1	Auto	200.0		611.0	600.0	-11.0	-1.8	kg
8	Add02	Auto	1.50		4.50	4.40	-0.10	-2.2	kg



Print sum of one truck

01
IPS Eurotec

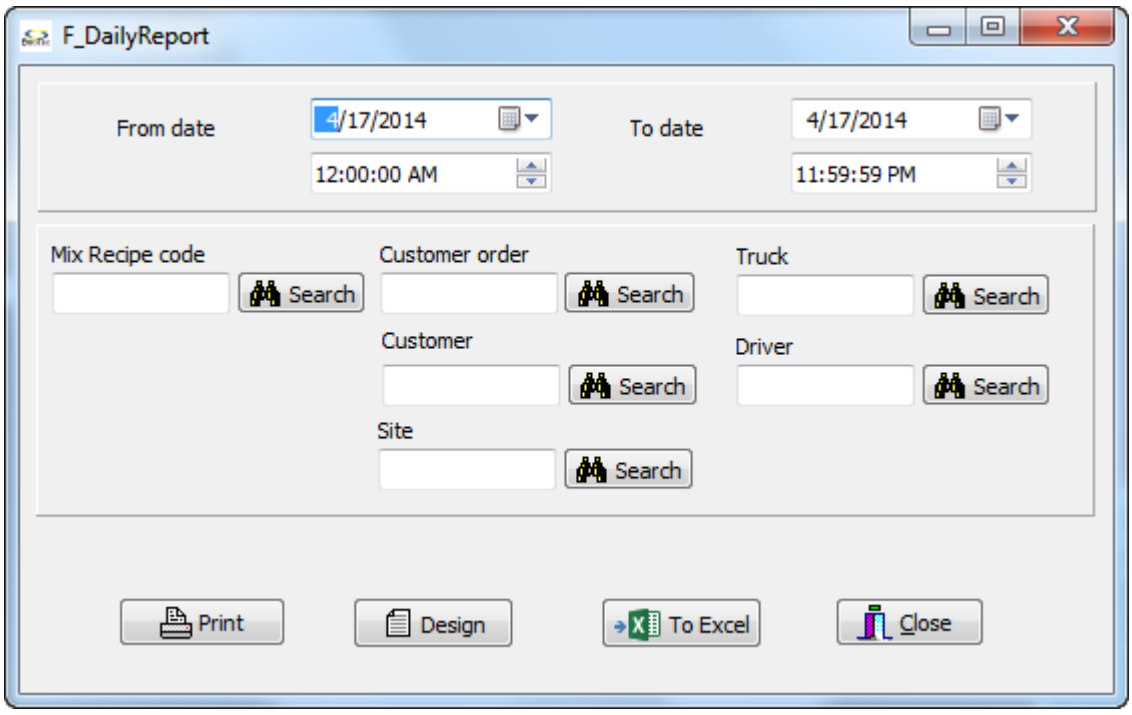
Mixing Report (SUM)

Delivery No : 7

Order No : 01 Truck : 1 Driver: 1
Recipe: 2
Date: 31/03/2014 16:31:37 W/C 0.67 0.67 Total Quanlity : 6.00

STT	Code Material	Auto/Man	Recipe	Moist %	Target	Actualy	Err	%	Unit
1	Agg01	Auto	860	0.00	5205	5115	-90	-1.7	kg
2	Agg02	Auto	200	0.00	1205	1195	-10	-.8	kg
3	Agg03	Auto	300	0.00	1810	1790	-20	-1.1	kg
4	Agg04	Auto	600	0.00	3630	3570	-60	-1.7	kg
5	Cem02	Auto	200		1210	1190	-20	-1.7	kg
6	Cem03	Auto	100		606	596	-10	-1.7	kg
7	Wa1	Auto	200.0		1211.0	1189.0	-22.0	-1.8	kg
8	Add02	Auto	1.50		9.00	8.80	-0.20	-2.2	kg

4.3 Report of Daily report :Menu Printout-Reports- Daily report by truck


F_DailyReport
From date
4/17/2014
12:00:00 AM
To date
4/17/2014
11:59:59 PM
Mix Recipe code
Search
Customer order
Search
Truck
Search
Customer
Search
Driver
Search
Site
Search
Print
Design
To Excel
Close

Daily Report

From: 01/03/2014 00:00:00
To: 17/04/2014 23:59:59

27/03/2014	13:13:07	Ticket	Mix Recipe	Truck	Order_No	Site
Size :	6.00 m3	2	1	99H 7890	01	1

Item	Material	Target	Actual		% Var	% Moisture
1	Agg01	1520	1490	kg	-1.97 %	0.00
2	Agg03	1210	1195	kg	-1.24 %	0.00
3	Agg04	600	600	kg	0.00 %	0.00
4	Cement3	608	596	kg	-1.97 %	
5	Water 1	608	596	kg	-1.97 %	
6	Additives1	7.20	7.05	kg	-2.08 %	

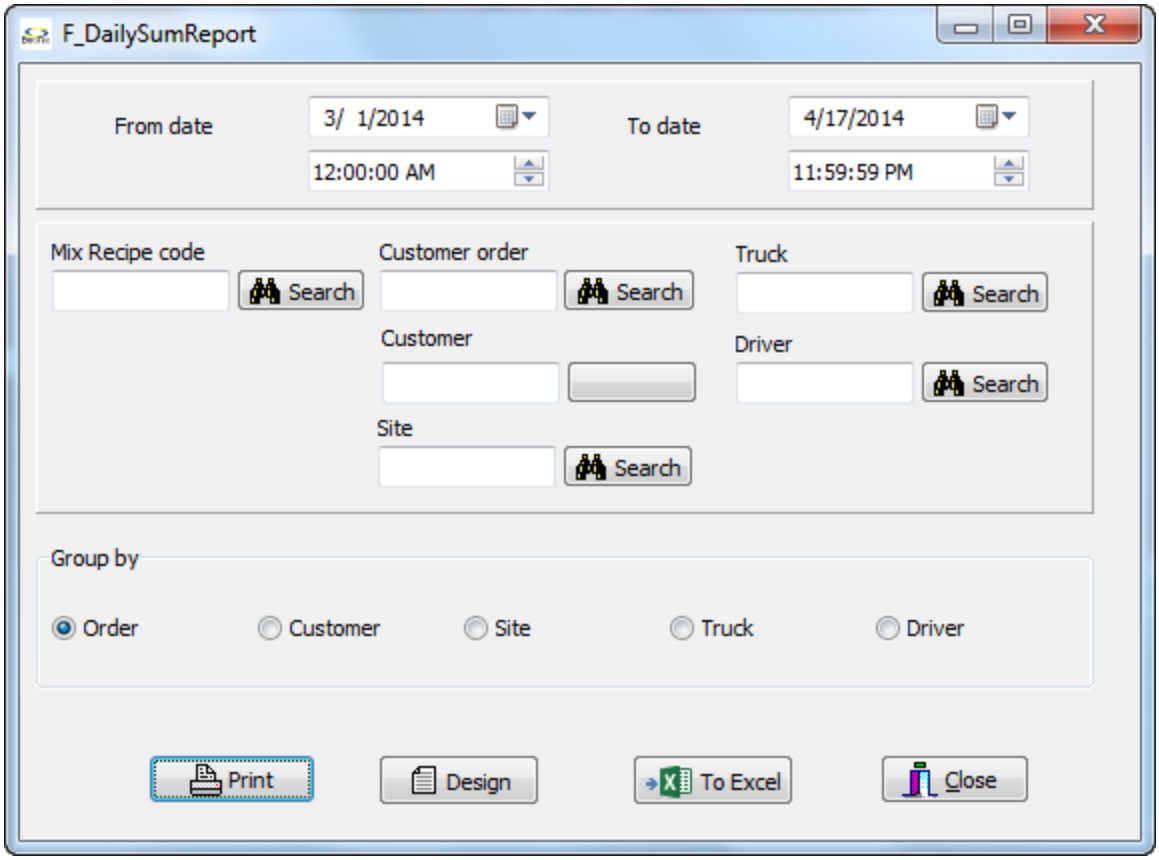
31/03/2014	15:45:30	Ticket	Mix Recipe	Truck	Order_No	Site
Size :	3.00 m3	4	2	99H 7890	01	1

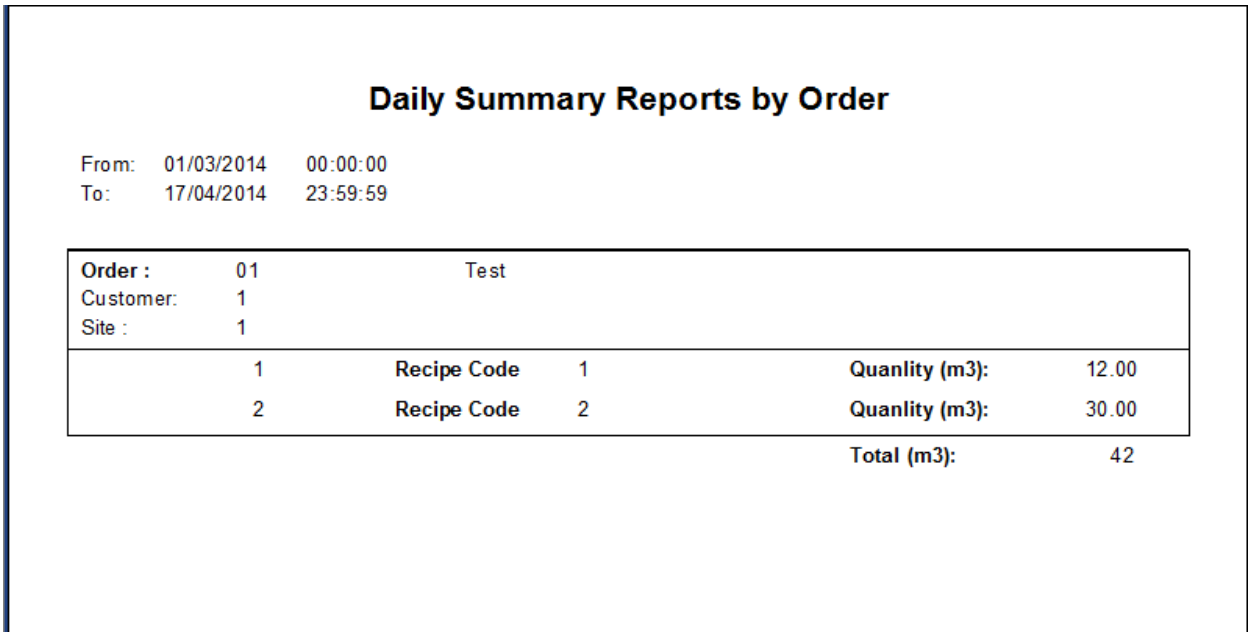
Item	Material	Target	Actual		% Var	% Moisture
1	Agg01	2580	2535	kg	-1.74 %	0.00
2	Agg02	600	595	kg	-0.83 %	0.00
3	Agg03	900	890	kg	-1.11 %	0.00
4	Agg04	1800	1770	kg	-1.67 %	0.00
5	Cement2	600	590	kg	-1.67 %	0.00
6	Cement3	300	294	kg	-2.00 %	
7	Water 1	600.0	589.0	kg	-1.83 %	
8	Additives2	4.50	4.40	kg	-2.22 %	

31/03/2014	15:52:23	Ticket	Mix Recipe	Truck	Order_No	Site
Size :	3.00 m3	5	1	99H 7890	01	1

Item	Material	Target	Actual		% Var	% Moisture
1	Agg01	750	740	kg	-1.33 %	0.00
2	Agg03	600	595	kg	-0.83 %	0.00

4.4 Report of Daily Summary report: Menu Printout - Reports - Daily summary report



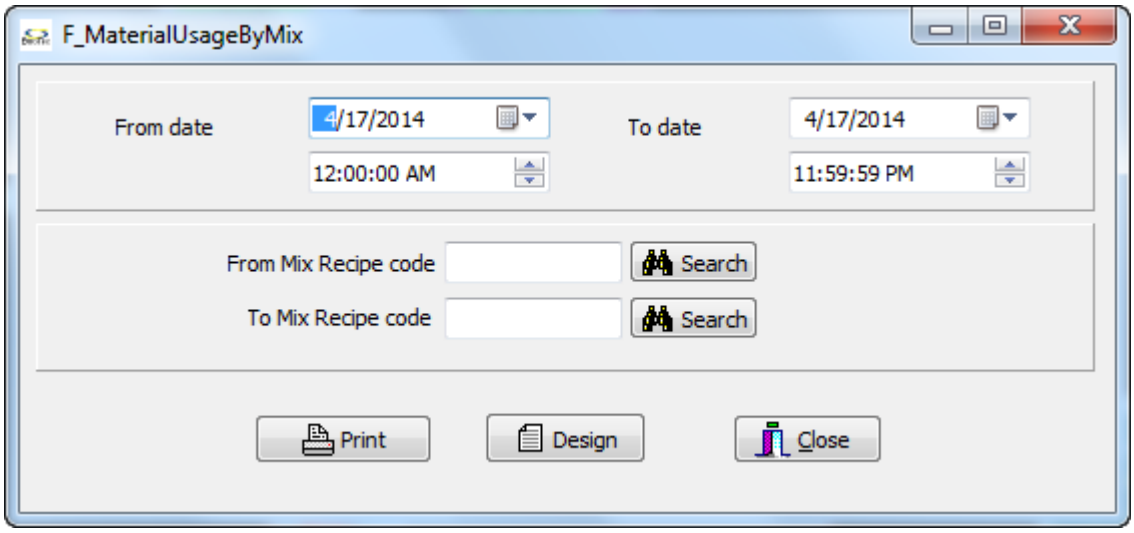


Daily Summary Reports by Order

From: 01/03/2014 00:00:00
To: 17/04/2014 23:59:59

Order :	01	Test			
Customer:	1				
Site :	1				
	1	**Recipe Code**	1	**Quanlity (m3):**	12.00
	2	**Recipe Code**	2	**Quanlity (m3):**	30.00
				Total (m3):	42

4.5 Report of Materials usage by mix design: Menu Printout-Reports- Material usage by mix design



Material Usage by Mix recipe

From date: 01 Mar 2014 00:00:00
To date: 17 Apr 2014 23:59:59

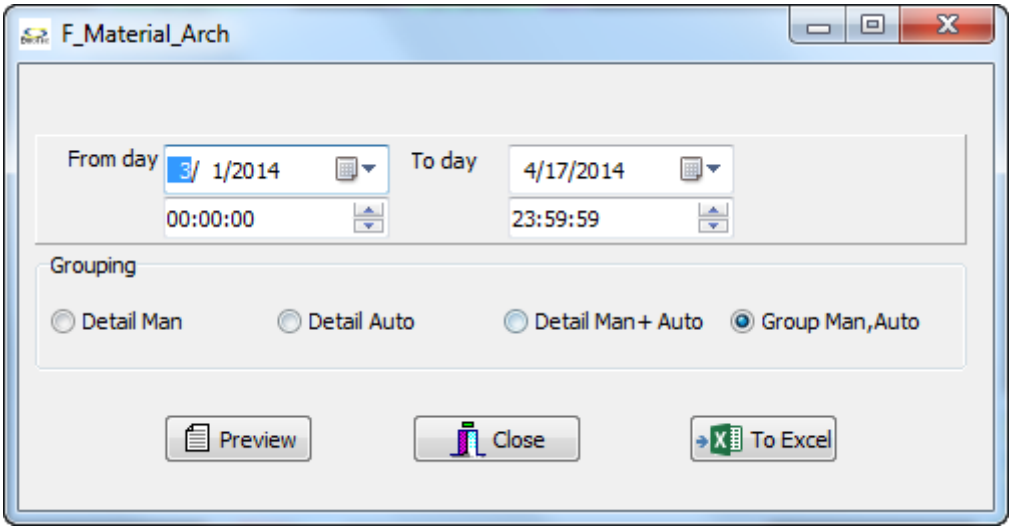
Mix Design 1

	Name_Material	SP_Target	PV_Actualy	
1	Agg01	3020	2970	kg
2	Agg03	3620	3580	kg
3	Agg04	1200	1200	kg
4	Cement3	1816	1784	kg
5	Water 1	1208	1186	kg
6	Additives1	50.4	49.1	kg

Mix Design 2

	Name_Material	SP_Target	PV_Actualy	
1	Agg01	15570	15300	kg
2	Agg02	3610	3580	kg
3	Agg03	5420	5360	kg
4	Agg04	10860	10680	kg
5	Cement2	3620	3560	kg
6	Cement3	1812	1780	kg
7	Water 1	3622	3556	kg
8	Additives2	27	26.4	kg

4.6 Report of Materials consumption: Menu Printout- Reports- Materials consumption report

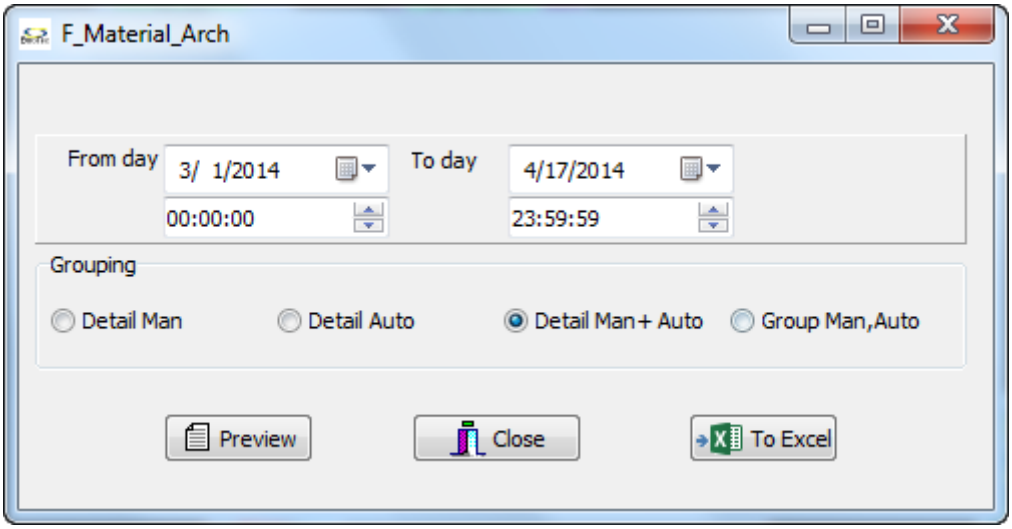


Report consumption total of materials

Material Report

Date From: 00:00:00 03.01.2014 Date to : 23:59:59 04.17.2014

Code_Material	Name_Material	Mode_Run	PV_Actualy
Add01	Additives1	Auto	49.1
Add02	Additives2	Auto	26.4
Agg01	Agg01	Auto	18270
Agg02	Agg02	Auto	3580
Agg03	Agg03	Auto	8940
Agg04	Agg04	Auto	11880
Cem02	Cement2	Auto	3560
Cem03	Cement3	Auto	3564
Wa1	Water 1	Auto	4742



Report consumption details of materials

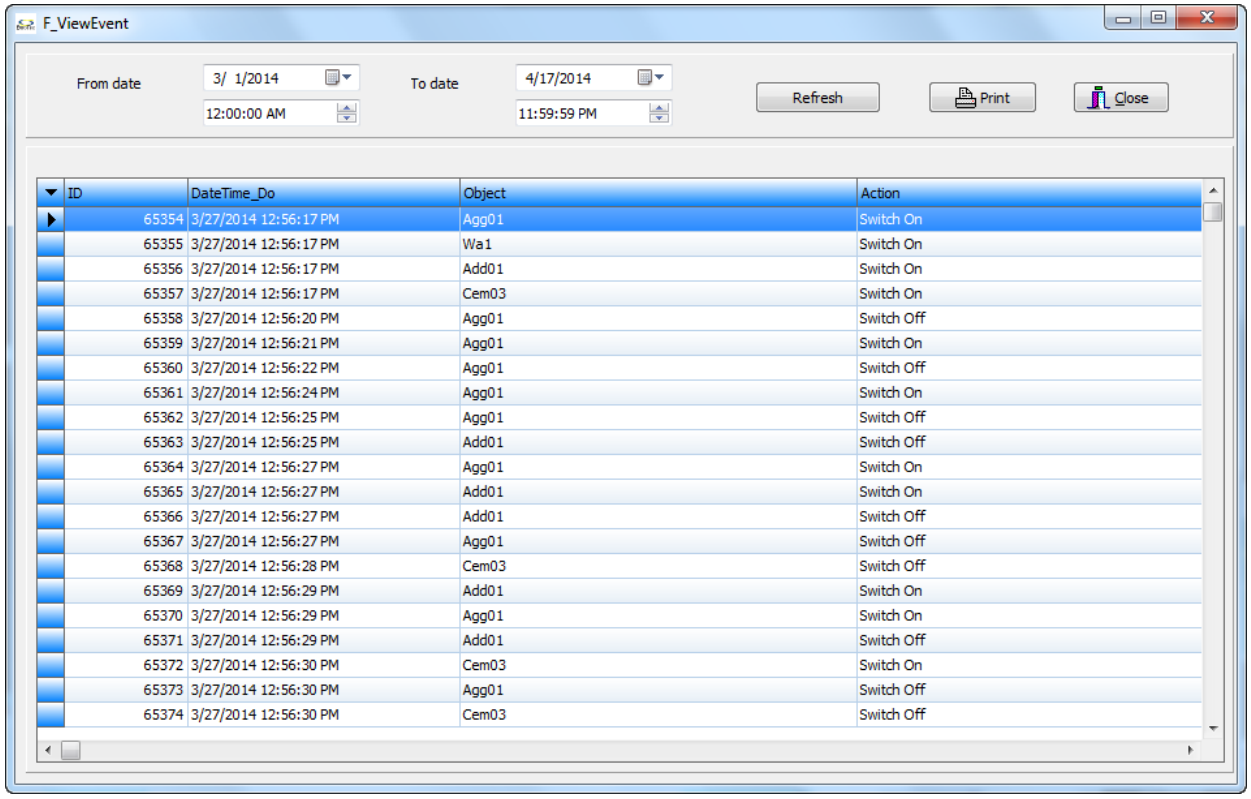
Material Report

Date From: 00:00:00 03.01.2014 Date to : 23:59:59 04.17.2014

Code_Material	Name_Material	Date time		Mode_Run	PV_Actualy
Agg03	Agg03	12:57 pm	03.27.2014	Auto	395
Cem03	Cement3	12:58 pm	03.27.2014	Auto	196
Add01	Additives1	12:58 pm	03.27.2014	Auto	2.35
Agg03	Agg03	12:59 pm	03.27.2014	Auto	400
Cem03	Cement3	01:00 pm	03.27.2014	Auto	200
Add01	Additives1	01:00 pm	03.27.2014	Auto	2.35
Agg03	Agg03	01:01 pm	03.27.2014	Auto	400
Cem03	Cement3	01:01 pm	03.27.2014	Auto	200
Add01	Additives1	01:01 pm	03.27.2014	Auto	2.35
Agg01	Agg01	01:14 pm	03.27.2014	Auto	490
Agg03	Agg03	01:14 pm	03.27.2014	Auto	395
Agg04	Agg04	01:14 pm	03.27.2014	Auto	200
Cem03	Cement3	01:15 pm	03.27.2014	Auto	196
Wa1	Water 1	01:15 pm	03.27.2014	Auto	196
Add01	Additives1	01:15 pm	03.27.2014	Auto	2.35
Agg01	Agg01	01:16 pm	03.27.2014	Auto	500
Agg03	Agg03	01:16 pm	03.27.2014	Auto	400
Agg04	Agg04	01:16 pm	03.27.2014	Auto	200
Cem03	Cement3	01:16 pm	03.27.2014	Auto	200
Wa1	Water 1	01:16 pm	03.27.2014	Auto	200
Add01	Additives1	01:17 pm	03.27.2014	Auto	2.35
Agg01	Agg01	01:17 pm	03.27.2014	Auto	500
Agg03	Agg03	01:17 pm	03.27.2014	Auto	400
Agg04	Agg04	01:17 pm	03.27.2014	Auto	200

5. Utilities:

5.1. View event history: Utilities-View event



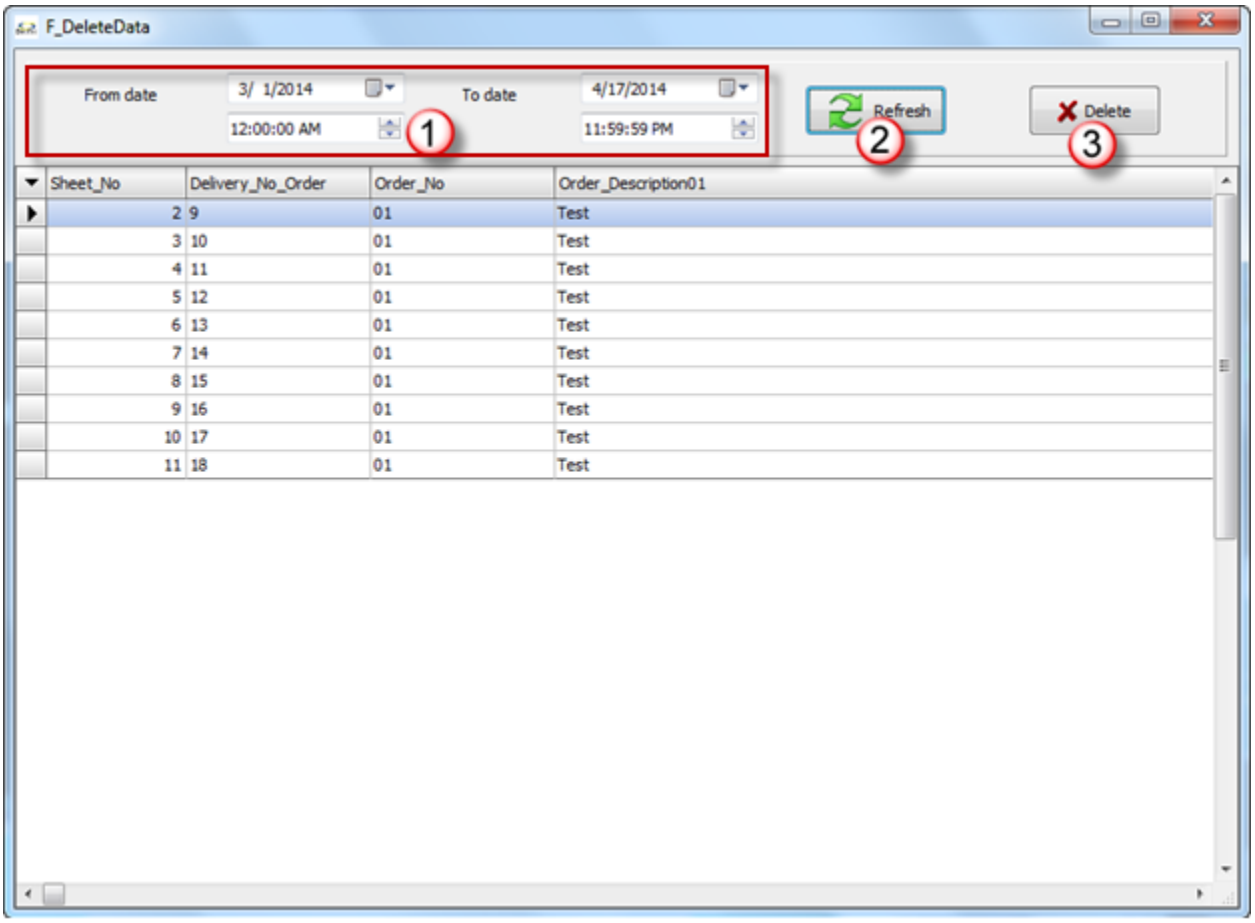
ID	DateTime_Do	Object	Action
65354	3/27/2014 12:56:17 PM	Agg01	Switch On
65355	3/27/2014 12:56:17 PM	Wa1	Switch On
65356	3/27/2014 12:56:17 PM	Add01	Switch On
65357	3/27/2014 12:56:17 PM	Cem03	Switch On
65358	3/27/2014 12:56:20 PM	Agg01	Switch Off
65359	3/27/2014 12:56:21 PM	Agg01	Switch On
65360	3/27/2014 12:56:22 PM	Agg01	Switch Off
65361	3/27/2014 12:56:24 PM	Agg01	Switch On
65362	3/27/2014 12:56:25 PM	Agg01	Switch Off
65363	3/27/2014 12:56:25 PM	Add01	Switch Off
65364	3/27/2014 12:56:27 PM	Agg01	Switch On
65365	3/27/2014 12:56:27 PM	Add01	Switch On
65366	3/27/2014 12:56:27 PM	Add01	Switch Off
65367	3/27/2014 12:56:27 PM	Agg01	Switch Off
65368	3/27/2014 12:56:28 PM	Cem03	Switch Off
65369	3/27/2014 12:56:29 PM	Add01	Switch On
65370	3/27/2014 12:56:29 PM	Agg01	Switch On
65371	3/27/2014 12:56:29 PM	Add01	Switch Off
65372	3/27/2014 12:56:30 PM	Cem03	Switch On
65373	3/27/2014 12:56:30 PM	Agg01	Switch Off
65374	3/27/2014 12:56:30 PM	Cem03	Switch Off

Events History Report

01 Mar 2014 00:00:00
17 Apr 2014 23:59:59

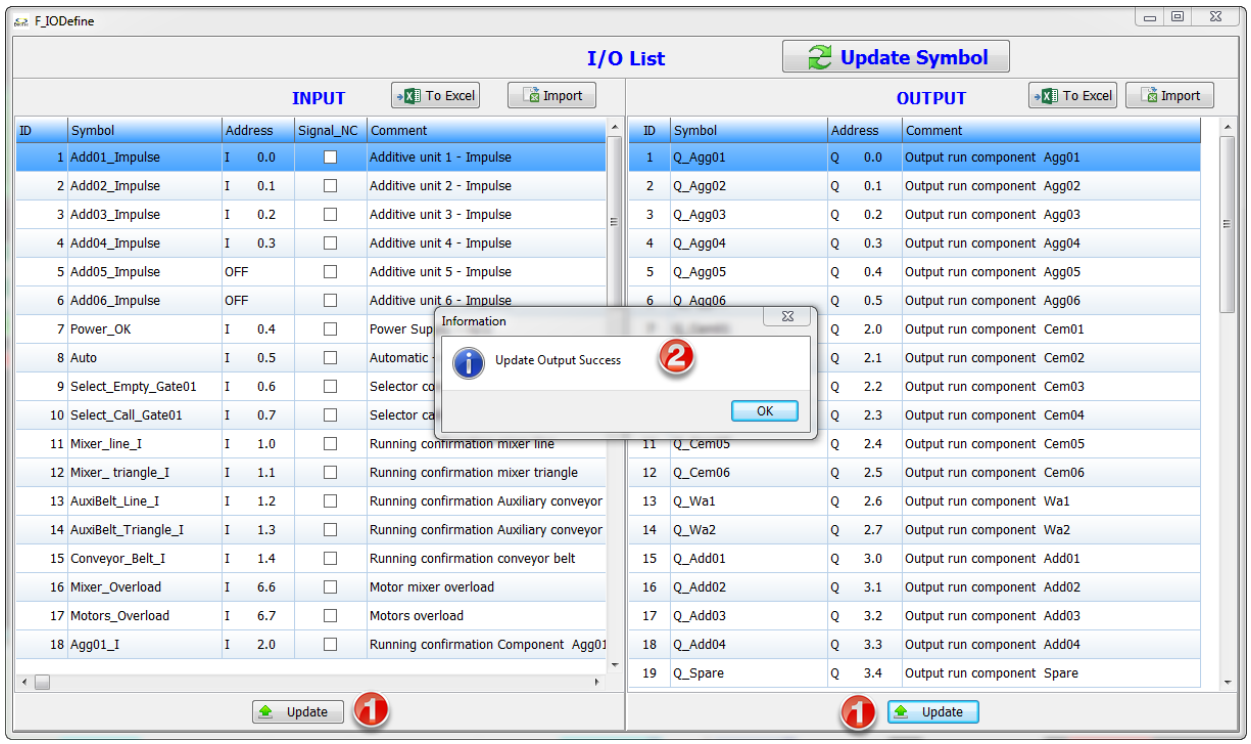
DateTime_Do	Object	Action	Mode	UserName
3/27/2014 12:56:17 PM	Agg01	Switch On	Auto Event	ecs
3/27/2014 12:56:17 PM	Wa1	Switch On	Auto Event	ecs
3/27/2014 12:56:17 PM	Add01	Switch On	Auto Event	ecs
3/27/2014 12:56:17 PM	Cem03	Switch On	Auto Event	ecs
3/27/2014 12:56:20 PM	Agg01	Switch Off	Auto Event	ecs
3/27/2014 12:56:21 PM	Agg01	Switch On	Auto Event	ecs
3/27/2014 12:56:22 PM	Agg01	Switch Off	Auto Event	ecs
3/27/2014 12:56:24 PM	Agg01	Switch On	Auto Event	ecs
3/27/2014 12:56:25 PM	Agg01	Switch Off	Auto Event	ecs
3/27/2014 12:56:25 PM	Add01	Switch Off	Auto Event	ecs
3/27/2014 12:56:27 PM	Agg01	Switch On	Auto Event	ecs
3/27/2014 12:56:27 PM	Add01	Switch On	Auto Event	ecs
3/27/2014 12:56:27 PM	Add01	Switch Off	Auto Event	ecs
3/27/2014 12:56:27 PM	Agg01	Switch Off	Auto Event	ecs
3/27/2014 12:56:28 PM	Cem03	Switch Off	Auto Event	ecs
3/27/2014 12:56:29 PM	Add01	Switch On	Auto Event	ecs
3/27/2014 12:56:29 PM	Agg01	Switch On	Auto Event	ecs
3/27/2014 12:56:29 PM	Add01	Switch Off	Auto Event	ecs
3/27/2014 12:56:30 PM	Cem03	Switch On	Auto Event	ecs
3/27/2014 12:56:30 PM	Agg01	Switch Off	Auto Event	ecs
3/27/2014 12:56:30 PM	Cem03	Switch Off	Auto Event	ecs
3/27/2014 12:56:31 PM	Add01	Switch On	Auto Event	ecs

5.2 Delete data: Menu Utilities-Delete data.



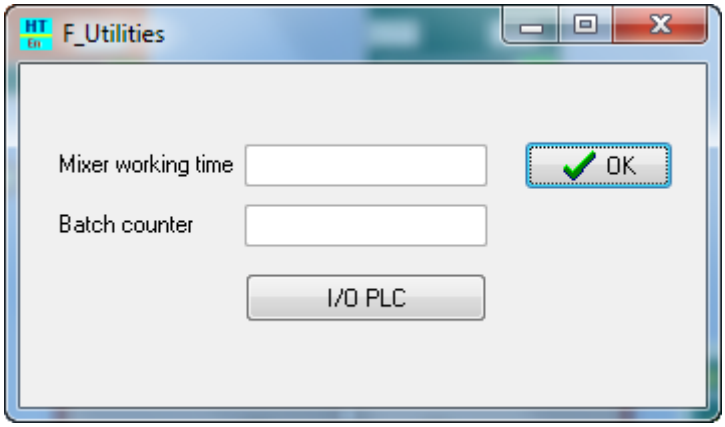
- 1 *Select date time.*
- 2 *Click button to view data.*
- 3 *Click delete button to delete.*

5.3 Update I/O: Utilitites-Define I/O.

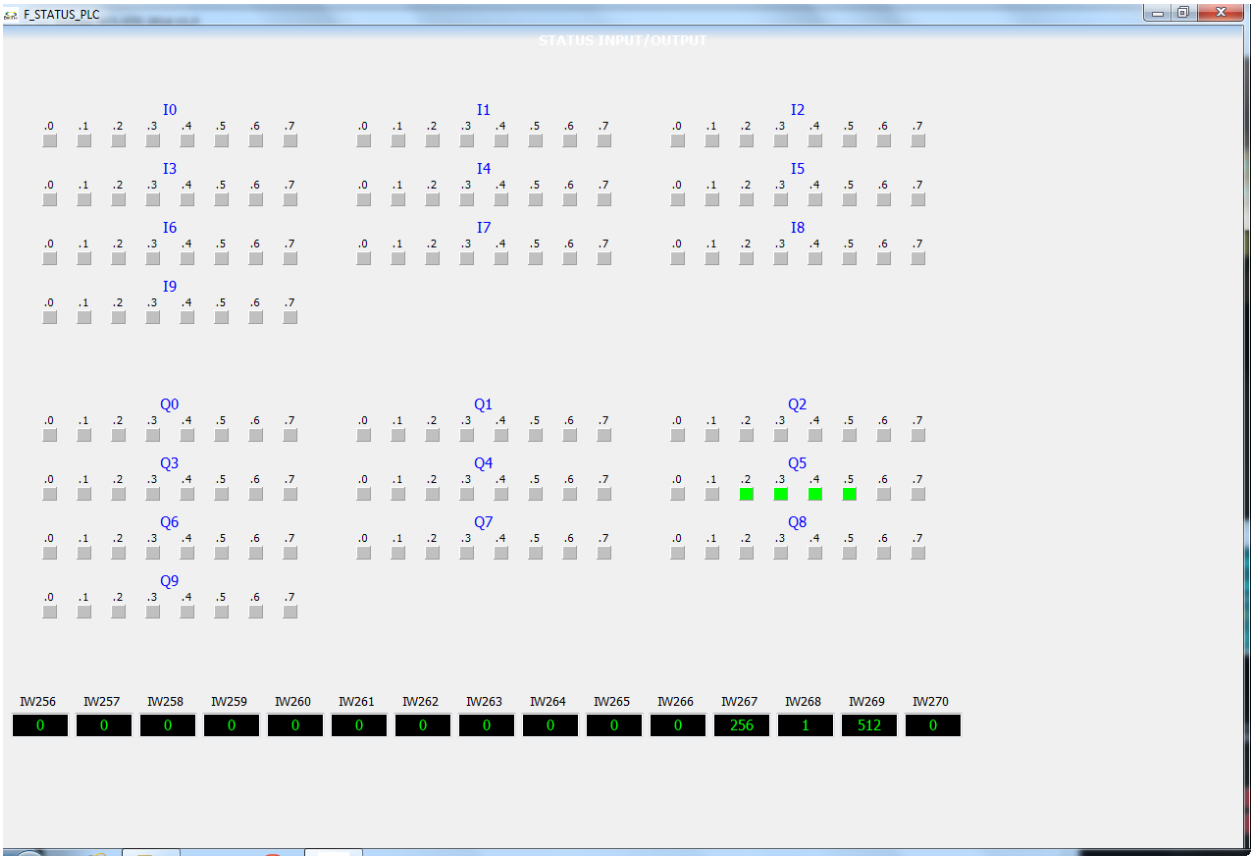


Click update button.

5.4 View status of I/O: Utilities-Utilities



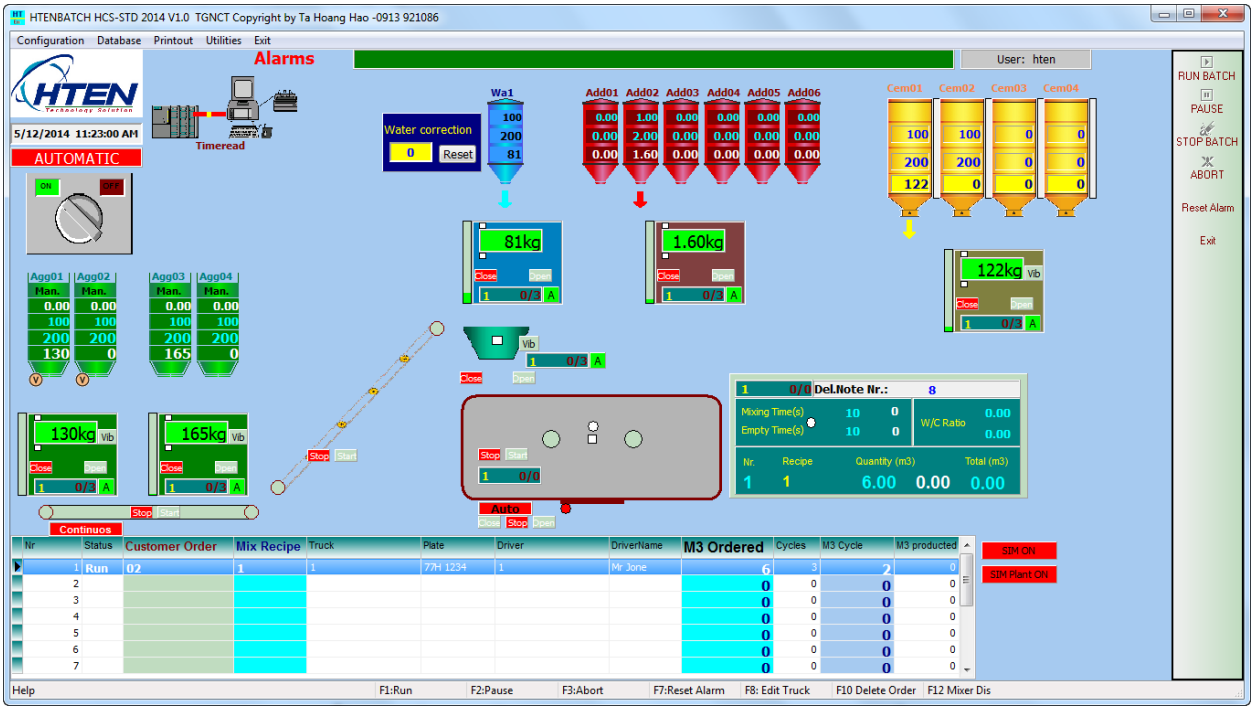
Click I/O PLC



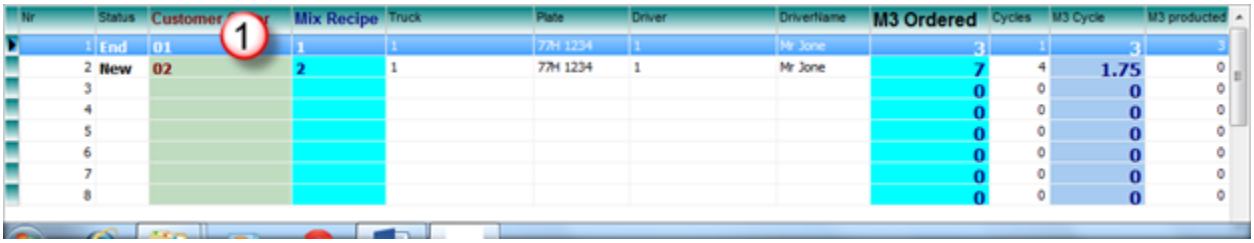
Status of Input and Output PLC

6. Batching:

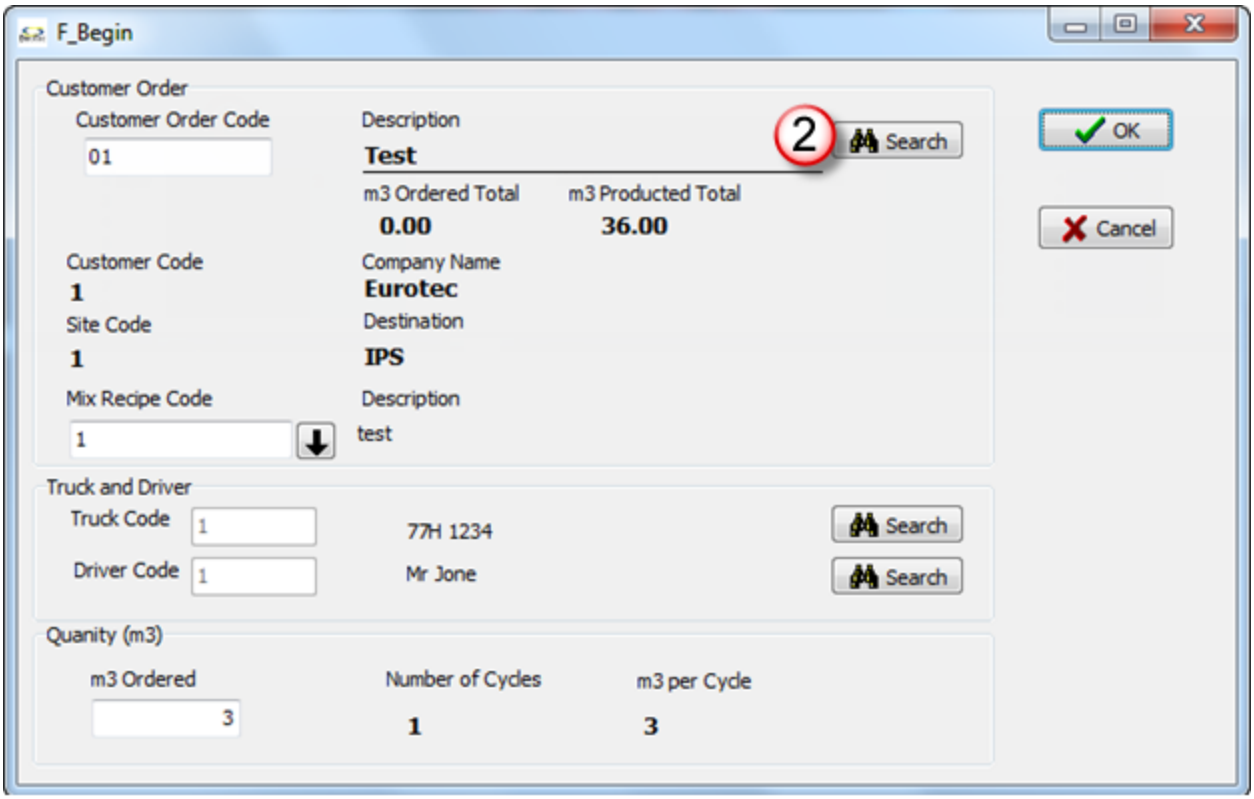
The steps to execute production:



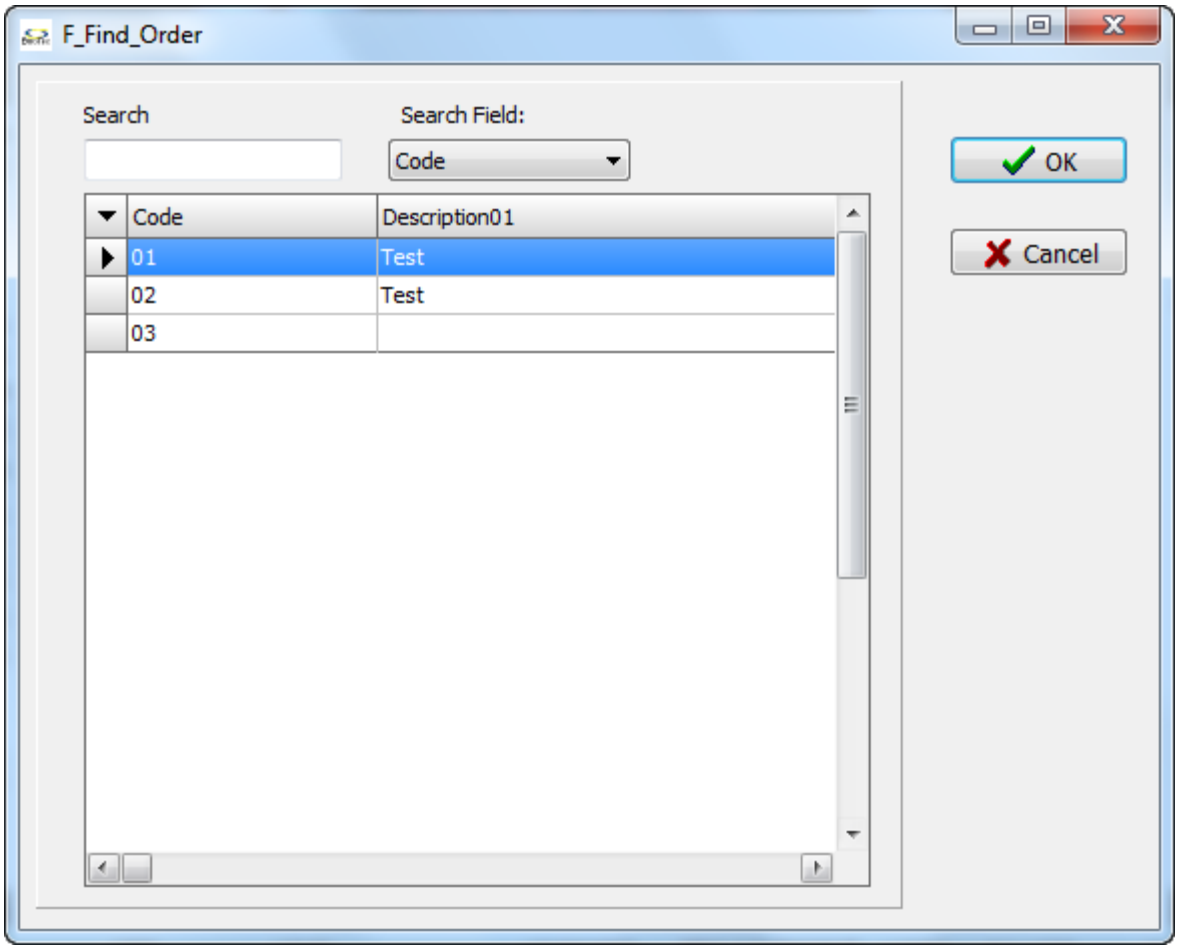
- Step1 : Select one wait order in 



Double click on it.

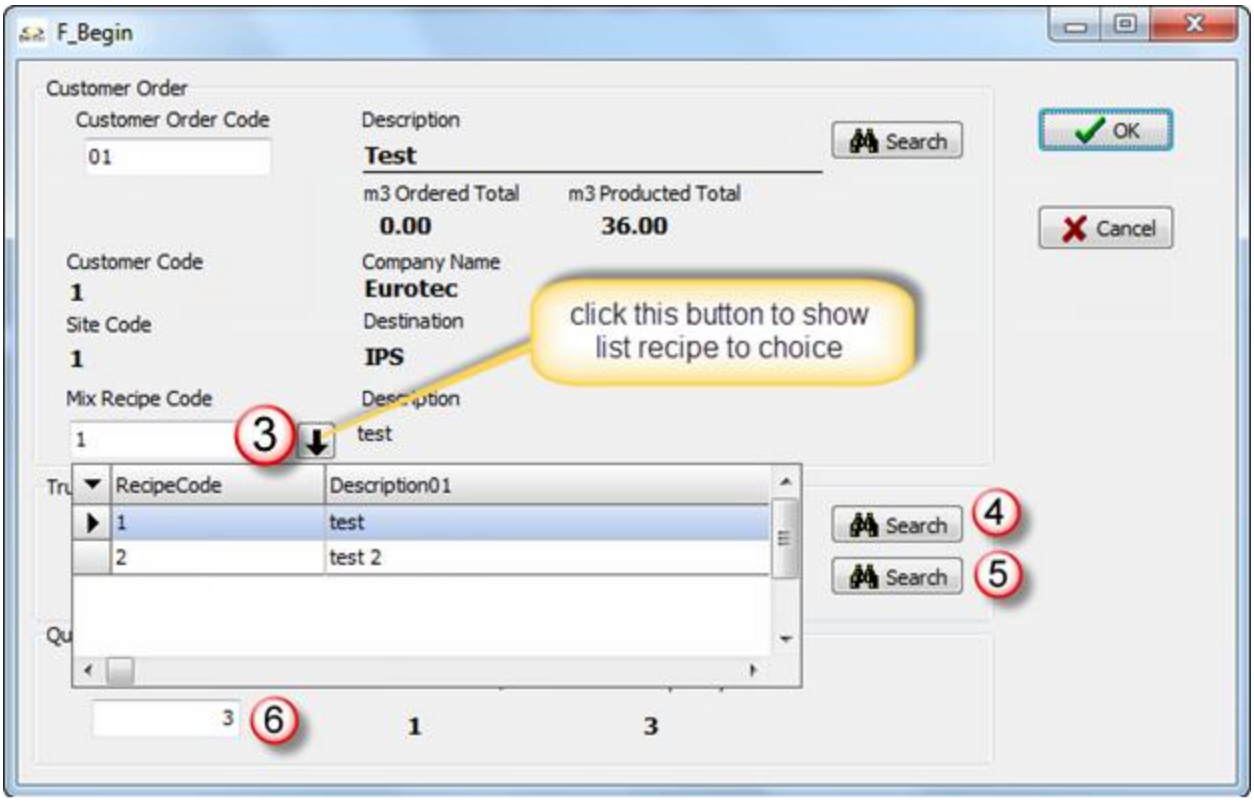


- Step2 : Select customer order from list by clicking search button in 

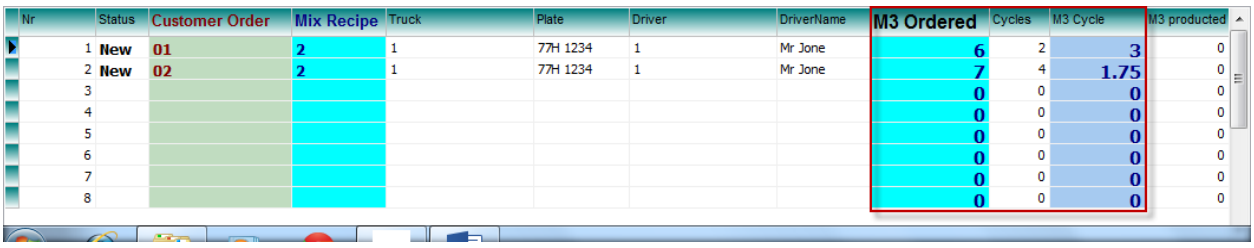


Select customer order and click OK.

- Step3 : Select recipe in 



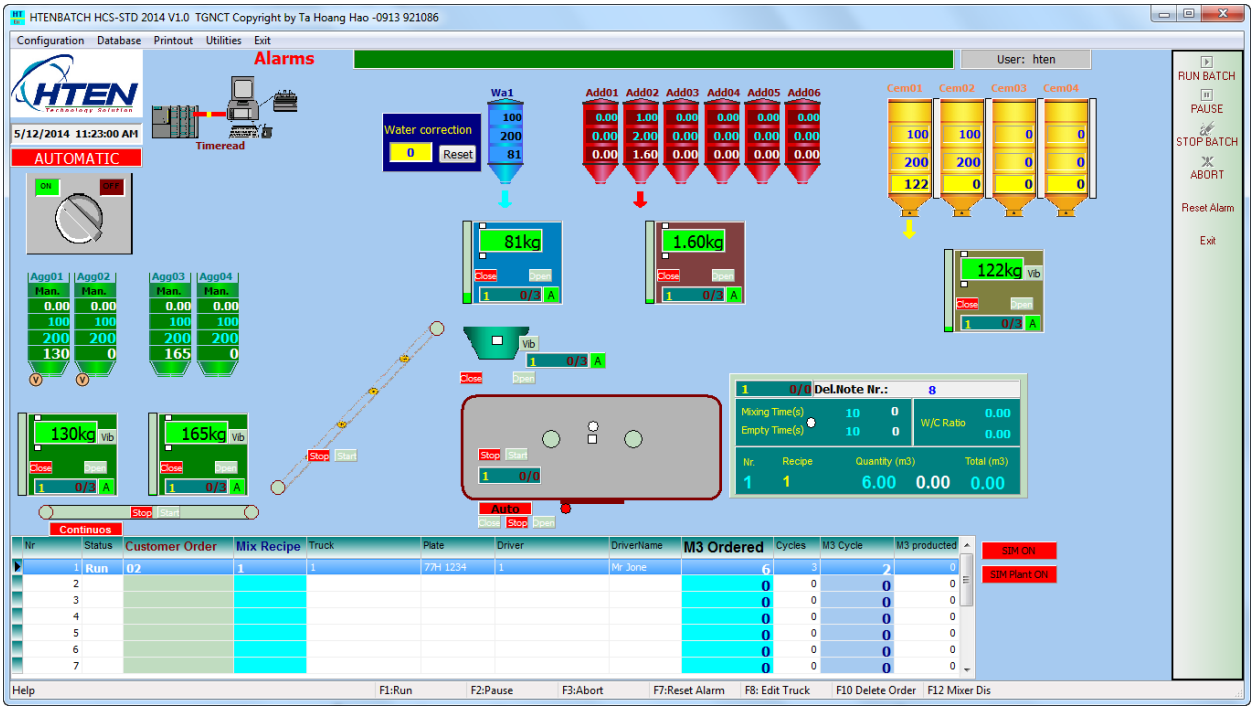
- Step4 : Select truck in 4
- Step5 : Select truck in 5
- Step6 : Select truck in 6
- Step 7: Click OK

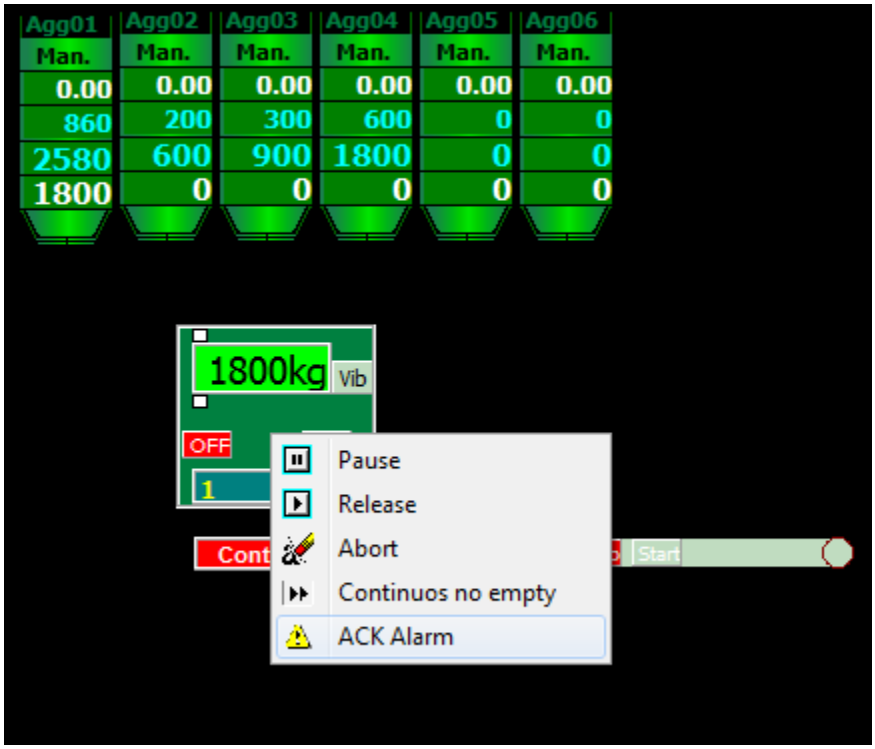


- Step 8: Check and Press F1 or click Run Button.



- Step 9 : Confirm OK.



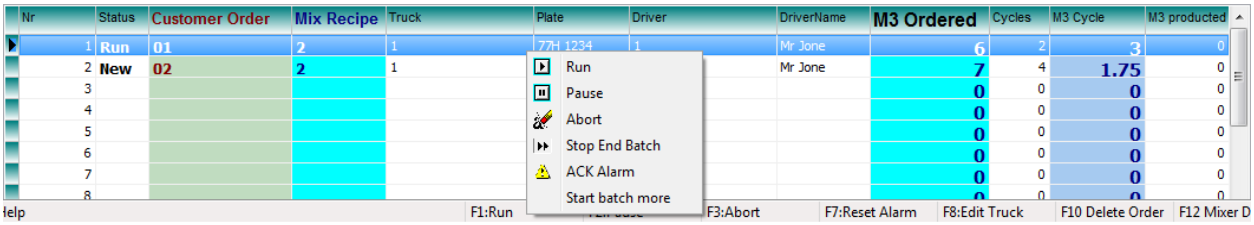


Submenu control for scale by clicking right mouse.

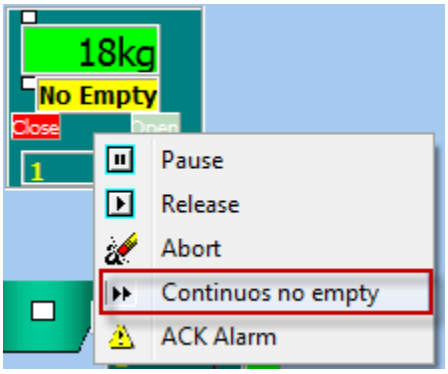
- *Pause : Pause dosing system for this scale.*
- *Release: Restart again.*
- *Abort : Stop and dose next component.*
- *Continuous no empty: confirm to dose next when scale is no empty.*
- *ACK Alarm: Reset alarm only for alarm of this scale.*



Button on the right screen



Click right mouse on grid.



Confirm to dose with scale no empty.