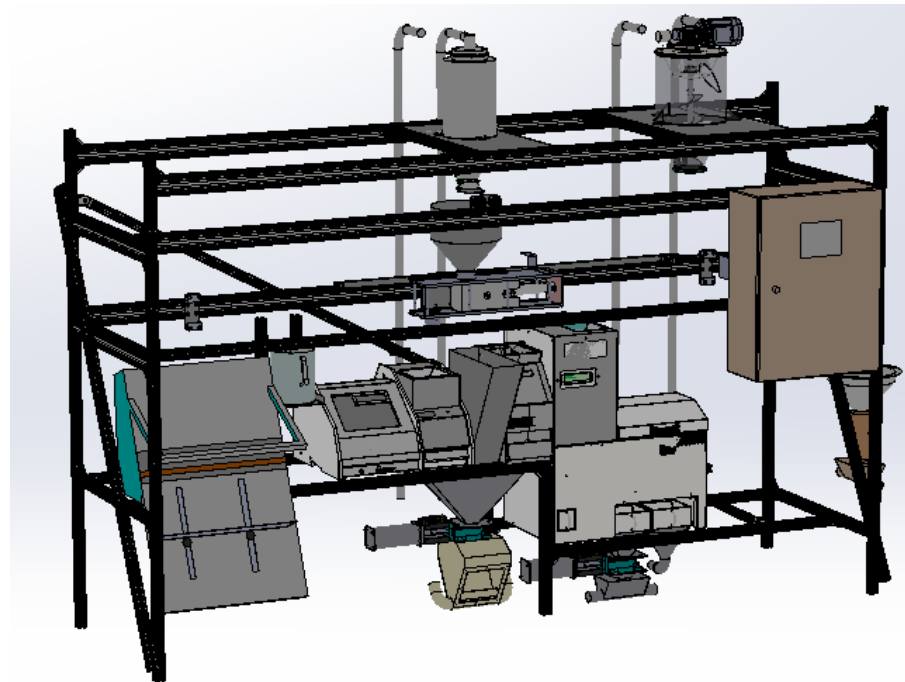




SARA 2020

Système Automatique de Réception et d'Analyse

OPERATING PROCEDURE





TOUT POUR LE GRAIN - FRANCE

www.toutpourlegrain.fr
contact@toutpourlegrain.fr
Tel: +33 (0)3 86 88 98 00

Contact

Nikolaï Doval : + 33 6 07 94 15 42





When a sequence is running, should it be in manual or automatic mode, any access to the working area should be forbidden.

You must take all necessary measures to avoid material or bodily injuries.

For any intervention, you must wear your personal protective equipment.





It is essential for any operation to be carried out on this equipment to be done by personnel who has received the appropriate training.

You must not attempt to operate the cylinders, the dosing trolley and any effector during sample transport (when the sample is in the operating cycle).

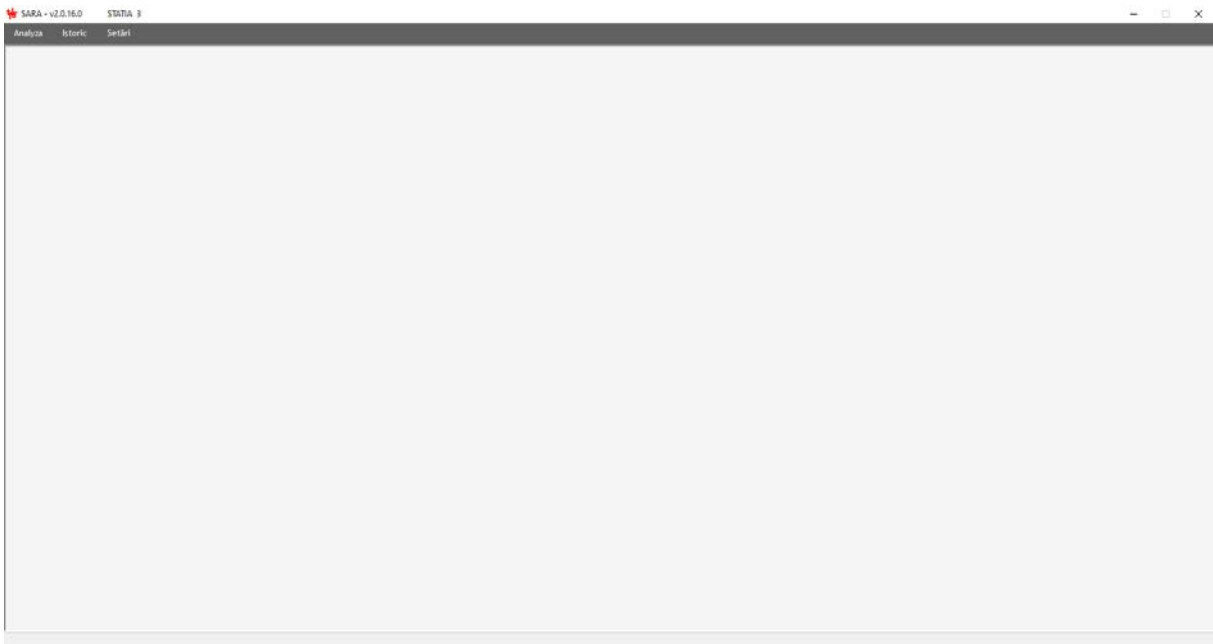
Before any operation of the SARA, make sure that no person or physical elements are in the linear rail translation area.

Beware of Residual Energies



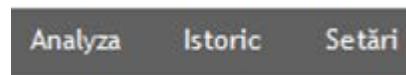


1. Main screens



The main screen allows the operator to choose between 2 main modes :

- Analiza
- Istoric



The Setari section shouldn't be available and is protected by a password. This section allows TPLG's operators to apply several specific settings to the program. These settings have already been optimized for Comvex's using.

ANALIZA

OPERATUNE

Modul BENTO: da Nu

Aparat: Aquatr Quatuor Infraneo SARA

1 - Recepție de probe

Fijer

ID:

Data: 04/08/2020 09:55:43:695

Angerarea cerealelor

2 - Verificati si modificati optiunile de mai jos, daca este necesar

Cereale: Brut Curatat

Număr de doze

Quatuor 0 Aquatr 0 Infraneo 0

Ulcior 0 Sac 1 0 Sac 2 0

3 - Inceperea ciclului

Registrari PLC	Nr.	Carbatare	vibrare
2	Avancoment	0	
120	Comanda cycle	0	
121	Statut Quatuor	-4	
122	Statut Aquatr	-4	
123	Statut infraneo	-4	
124	Dosage effectuat	0	
125	Choix grain	1	
160	Doses Quatuor	0	
161	Doses Aquatr	3	
162	Doses infraneo	3	
163	Doses Broc	-4	
164	Doses Sachet 1	-4	
160	Doses sachet 2	6	
117	Arret d'urgence	0	

ANALIZA screen is the main screen used by the operators. It allows to manage the analyzing process following the operator's needs.





ISTORIC

SARA - v2.0.16.0 STATIA 3

Analiza Istoric Setari

istoric							Rezultate		
analize									
Mod	ID	Data	Numar de doze				Aparat	component	Valoare
			Cereale	Quatlor	Aquatr	Infraneo	Ulcior	Sec 1	Sec 2
Manual	test	04/08/2020 18:27:03:978	Grau			3			
Manual	testy	04/08/2020 18:22:46:779	Grau			3			
Manual	F0HFGH	04/08/2020 18:07:36:973	Orz furajger	3	3	3	4	4	4
Manual		04/08/2020 15:51:06:314	Orz furajger			3			
Manual		04/08/2020 15:47:08:842	Orz furajger			3			
Manual	91237	04/08/2020 15:28:59:833	Grau	3	3	3	4	4	4
Manual	10680	04/08/2020 15:23:46:568	Grau	3	3	3	4	4	4
Manual	50335	04/08/2020 14:27:21:149	Grau	3	3	3	4	4	4
Manual	49524	04/08/2020 14:21:14:492	Grau	3	3	3	4	4	4
Manual	20519	04/08/2020 14:14:48:823	Grau	3	3	3	4	4	4
Manual	32275	04/08/2020 14:11:07:963	Grau	3	3	3	4	4	4
Manual	20825	04/08/2020 14:03:12:611	Grau	3	3	3	4	4	4
Manual	28825	04/08/2020 13:59:48:594	Grau	3	3	3	4	4	4
Manual	49550	04/08/2020 13:55:16:811	Grau	3	3	3	4	4	4
Manual	21211	04/08/2020 13:45:21:495	Grau	3	3	3	4	4	4
Manual	21211	04/08/2020 13:38:27:250	Grau	3	3	3	4	4	4
Manual	32531	04/08/2020 13:24:43:658	Grau	3	3	3	4	4	4
Manual	111	04/08/2020 12:34:04:070	Orz furajger	3	3	3	4	4	4
Manual	111	04/08/2020 12:31:14:339	Orz furajger	3	3	3	4	4	4
Manual	5555	04/08/2020 12:30:39:589	Orz furajger			3			
Manual	5555	04/08/2020 12:28:49:936	Orz furajger			3			
Manual		04/08/2020 12:04:33:371	Orz furajger			3			
Manual		04/08/2020 12:01:04:556	Orz furajger			3			
Manual		04/08/2020 11:54:33:116	Orz furajger			3			
Manual		04/08/2020 11:29:01:810	Grau			3			
Manual		04/08/2020 11:33:36:673	Grau			3			
Manual	III	04/08/2020 11:11:10:952	Orz furajger			3			
Manual	III	04/08/2020 11:05:53:489	Orz furajger			3			
Manual		04/08/2020 11:20:16:346	Grau			3			
Manual	jksh	04/08/2020 03:34:02:332	Grau	3	3	4	4	4	4
Manual	jksh	04/08/2020 03:24:13:345	Grau	3	3	4	4	4	4
Manual	jksh	04/08/2020 03:20:51:160	Grau	3	3	4	4	4	4

Aparat	component	Valoare
Aquatr	Humiditate	12.3
Aquatr	Pozit specific/tpae	80.7
Aquatr	Temperatura	29.6
Quatlor	Impuretat	1.1
Quatlor	Grains cassés	3.9
Quatlor	Impuretés - Grains cassés	5.0
Quatlor	Bon grain	95.0
Infraneo	Lumiditate(%)	011.30
Infraneo	Protena(%)	012.60
Infraneo	Gluten(%)	028.00
Infraneo	Gluten manual	022.80
Infraneo	W	229.00
Infraneo	Ambon(%)	080.10
Infraneo	Zeleny	053.00

ISTORIC screen allows the operator to access all the needed information related to previous analyzes, showing all the results depending on the ID, date & time, and selected devices.

2. ANALYZA – operating procedure

Before launching the system, the operator needs to make sure all the devices are connected to the software & ready for processing. The green lights should be appearing in the following way :



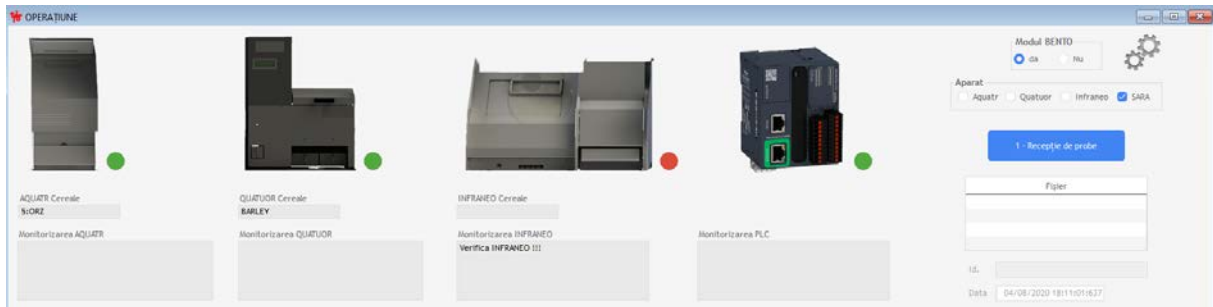
If some of the devices aren't connected, you will notice a red light as following :





- Quatuor & AquaTR :

The connecting cables should be checked. If the cables are connected properly, then the operator should close & open the ANALYZA window several times, until having these devices connected to the software.



- Infraneo :

The connecting cables should be checked. If the cables are connected properly, then the operator should close the ANALYZA window, and use the Infraneo connecting procedure as following :



On the main screen of the INFRANEO, please double-click on the connecting icon until having it red. Then, double-click again until having it green. Please note that a bar can appear on the computer icon, which has no impact on the functioning.



Once finished, the operator should open the ANALYZA screen again : all the devices will be connected.





Modul BENTO
 da Nu

Aparat
 Aquatr Quatuor Infraneo SARA

1 - Recepție de probe

Fișier

Id.

Data

Alegerea cerealelor

2 - Verificați și modificați opțiunile de mai jos, dacă este necesar

Cereale
 Brut Curatat

Număr de doze

Quatuor	<input type="text" value="0"/>	Aquatr	<input type="text" value="0"/>	Infraneo	<input type="text" value="0"/>
Cana	<input type="text" value="0"/>	Martor 1	<input type="text" value="0"/>	Martor 2	<input type="text" value="0"/>

3 - Începerea ciclului

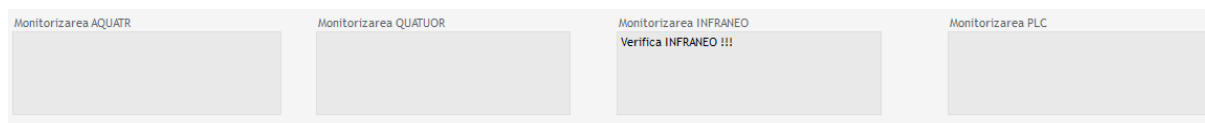
The operator should select the processing mode first. Modul BENTO will allow the operator to receive & process a csv file including all the information about the incoming truck. Instead, by selecting NU, the operator will have to fill the ID & GRAIN blanks manually.

The operator should then select if he wants the SARA to dose the sampe automatically, or if he prefers to dose manually in each device ; in this case the devices in question should be selected.

Then, the type of grain should be selected. Please note that the selection will take a few seconds, the time to make the change of each device.

The operator is also asked to select the needed type of processing : raw or clean grain.

Finally, before launching the cycle by clicking on the icon 3, the operator will have to enter the needed amount of doses on each device. Please note that it is possible to enter 0 doses ; in this case the device in question will be removed out of the cycle.



The monitoring screens will allow the system to commincate with the operator, by showing error messages if any.

The full list of possible errors will pe provided to the users.

The results will then be appearing on the screen below, at the end of the cycle :





Rezultat AQUATR		Rezultat QUATUOR		Rezultat INFRANEO	
Parametri	rezultat	Parametri	rezultat	Parametri	rezultat

Examples :

Modul BENTO
 da Nu

Aparat
 Aquatr Quatuor Infraneo SARA

1 - Recepție de probe

Fișier

Id.

Data

Alegerea cerealelor
Grau

2 - Verificați și modificați opțiunile de mai jos, dacă este necesar

Cereale
 Brut Curatat

Număr de doze

Quatuor	<input type="text" value="0"/>	Aquatr	<input type="text" value="3"/>	Infraneo	<input type="text" value="2"/>
Cana	<input type="text" value="0"/>	Martor 1	<input type="text" value="0"/>	Martor 2	<input type="text" value="0"/>

3 - Începerea ciclului

BENTO Modul on NU, the operator has to enter the data manually. The SARA has been selected, which means that the devices will be fed automatically. The cycle will be short, as only the AquaTR & Infraneo will be dosed, as asked by the operator.

Modul BENTO
 da Nu

Aparat
 Aquatr Quatuor Infraneo SARA

1 - Recepție de probe

Fișier

Id.

Data

Alegerea cerealelor
Grau

2 - Verificați și modificați opțiunile de mai jos, dacă este necesar

Cereale
 Brut Curatat

Număr de doze

Quatuor	<input type="text" value="0"/>	Aquatr	<input type="text" value="3"/>	Infraneo	<input type="text" value="0"/>
Cana	<input type="text" value="0"/>	Martor 1	<input type="text" value="0"/>	Martor 2	<input type="text" value="0"/>

3 - Începerea ciclului

BENTO Modul on NU, the operator has to enter the data manually. The SARA has not been selected, which means that the devices will be fed manually. The cycle will include all the selected devices. The number of doses has no meaning, as all of the devices should be fed manually.





SARA - v2.0.76.0 STATIA 3

Analiza Istoric Setari

OPERATUNE *

Modul BENTO
da Nu

Aparat
Aquatr Quatuor Infraroce SARA

1. Secepția de presare

Fier

ID: test

Data: 04/08/2020 18:27:03-978

Algebra ceraselor
Grua

2. Verificati si modificati optiunile de mai jos, dupa este necesar

Cereale
Brot Curatat

Număr de doze
Quatuor 0 Aquatr 3 Infraroce 0
Căcia 0 Marfor 1 0 Marfor 2 0

3. Inceperea ciclului

OPERATUNE *

Secvența finalizată !!!

OK

Resultat AQUATR

Parametri	rezultat
Umiditate(%)	15.4
Masa Necobritica(g/kg)	63.7
Temperatura(C)	25.8

Resultat QUATUOR

Parametri	rezultat
-----------	----------

Resultat INFRAROCE

Parametri	rezultat
-----------	----------

mesajul PLC

Nu.	Conținut	valoare
120	Apornament	0
120	Comandae cycle	1
121	Statut Quatuor	4
122	Statut Aquatr	4
123	Statut infraroce	4
124	Emisaje efectuale	0
125	Choix gram	1
160	Dozes Quatuor	0
161	Dozes Aquatr	3
162	Dozes Infraroce	0
163	Dozes Broc	0
164	Dozes Sachet 1	0
168	Dozes sachet 2	0
117	Arret d'urgence	0

The end of the analyzing process will be announced to the operator by a short message appearing on the screen. The results will appear, and can be found in the ISTORIC section later.





3. Troubleshooting

« THE HAND ICON ISN'T APPEARING »



Issue :

The operator launches the cycle, but the hand icon isn't appearing on the SARA's control panel.

Solution :

The presence of the goblet is mandatory, this must be checked first. The operator should also check the sensor in question to see any damages.

The operator should check the safety laser, and to make sure nothing is interfering with it.

Finally, the sensor of the small cyclone (clean grain) must be checked. If the sensor moved (due to vibrations, or any human interference), it should be fixed back at its initial place.

Once done, the hand icon will be appearing on the screen.





« THE SARA ISN'T COMMUNICATING WITH THE PLC »

Issue :

The operator launches the cycle, but the hand icon isn't appearing on the SARA's control panel & an error message appears.

Solution :

The « emergency stop » restart should be applied. The procedure will be described in a short video.

The emergency stop button has to be pushed, then pulled. The operator should then press the restart icon in the MANUAL MODE screen, on the control panel.

« AN ERROR IS APPEARING ON THE MONITORING SCREEN »

Issue :

The monitoring screen shows a message related to one of the devices.

Solution :

An error number will appear on the screen. The operator should follow the procedures explained on the « list of errors » linked to this file.

