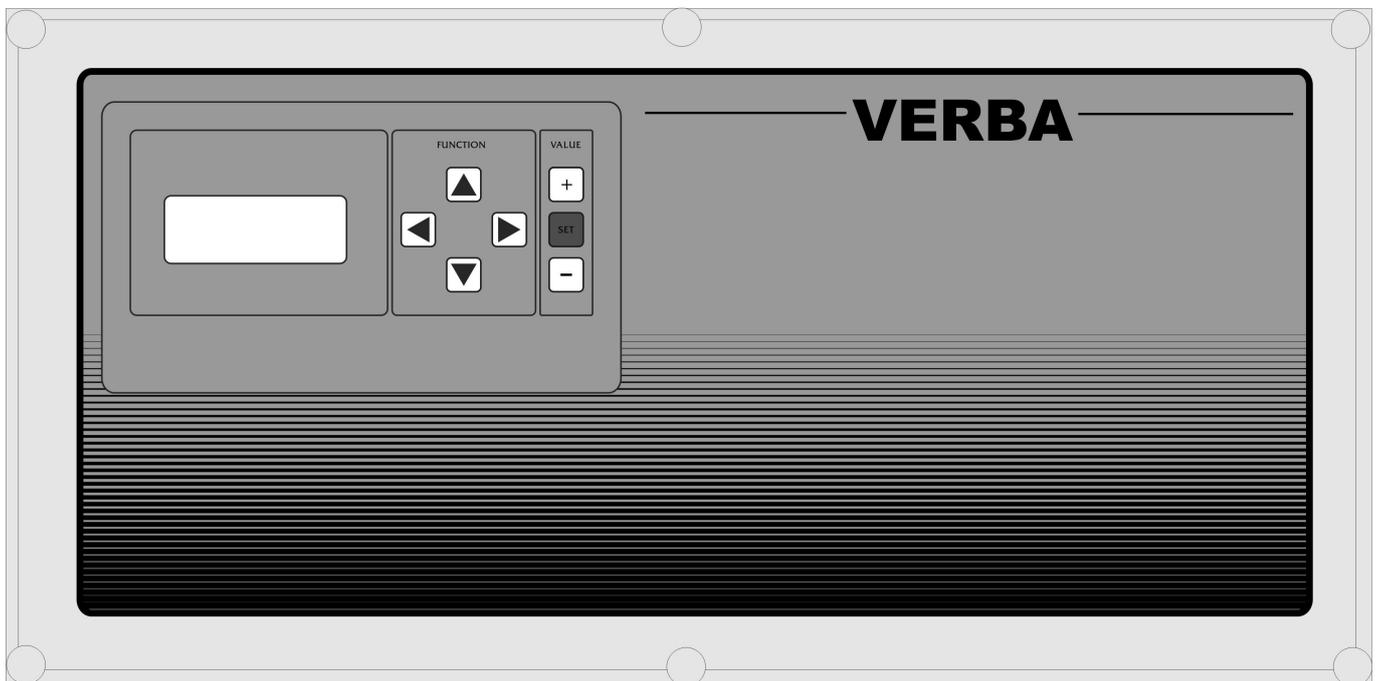


**Manual PC program
VERBAKEL FEED COMPUTERS
Version VVC PC 03.5
Jan. 22, 2009**



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Dear customer,

This manual contains all the necessary information to master the operational characteristics of the VERBA feed computer PC program. Carefully read this manual before you start working with the PC program. It makes it a lot easier to familiarize oneself with the PC program. Keep this manual at hand, so that you can use it as a reference book at all times.

As our products are subject to continuous development and updating, VERBAKEL BV is entitled to revise or modify its products without prior notice.

IMPORTANT!

In case any inductive loads are connected, such as field break switches and the like, a proper anti-interference device (RC-network, 100 Ohms + 100nF) should be applied.

All weak current wiring should be shielded. Shield connected as shown in the wiring diagram.

It is really important to provide the installation of a reliable alarm mechanism. VERBAKEL BV advises next to the application of the computer alarm signalling, a minimum/maximum thermostat that is not dependent on the computer.

VERBAKEL BV recommends checking its proper functioning regularly (at least 1x a day).

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The program's possibilities

The VCC PC 03.4 PC program is designed especially for connecting VERBA feed computers using a PC. The program contains the following possibilities:

- Connecting up to 99 VERBA computers.
- All measurements and settings for each section or trough can easily be viewed on-screen.
- Continuous total view of a particular section.
- Records of all feed data for the last 300 days.
- Records available in table or graph form on-screen or printed out on the printer.
- Records per section and per trough.

Minimum PC configuration

The PC used should comply with the following specifications:

- Pentium 90 MHz or higher. (preferably Pentium III 450MHz or higher)
- Windows 95 or 98.
- At least 10Mb free space on the hard disk.
- Unused serial connections (RS232) (com1, com2, com3 or com4)
- Graphic screen, 800x600 pixels or higher.
- Printer.

If you are unsure whether your PC complies with these specifications, consult your PC retailer.

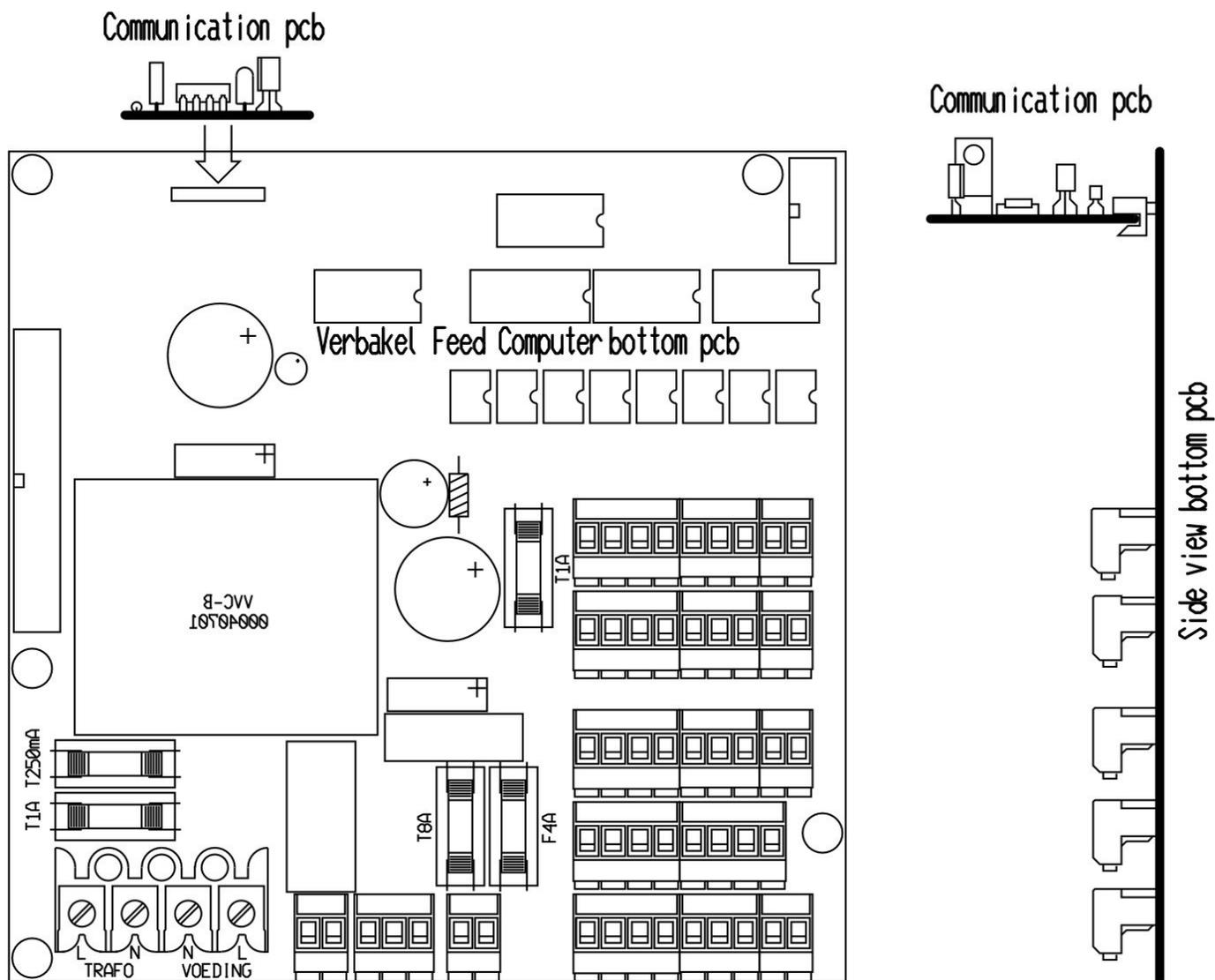
Connecting the computers to the PC

In order to be able to connect the PC to the computers, each feed computer needs to be fitted with a communications card. The feed computers communicate through a VIT bus. This is a dual-cable bus which is insensitive to polarity. In order to connect this bus to the PC an interface is required – the so-called IOIS interface. This ensures that the PC and VIT bus are galvanic ally separated so that the PC will not be damaged in the case of calamities.

Note: it is possible to connect multiple PCs to the same VIT bus, so that you can operate the feed computers from different locations, for example. An IOIS interface is then required for each PC.

Inserting the communications card into the feed computer

Switch off mains power to the feed computer before opening it.
Fit the communications card to the connector as indicated below.

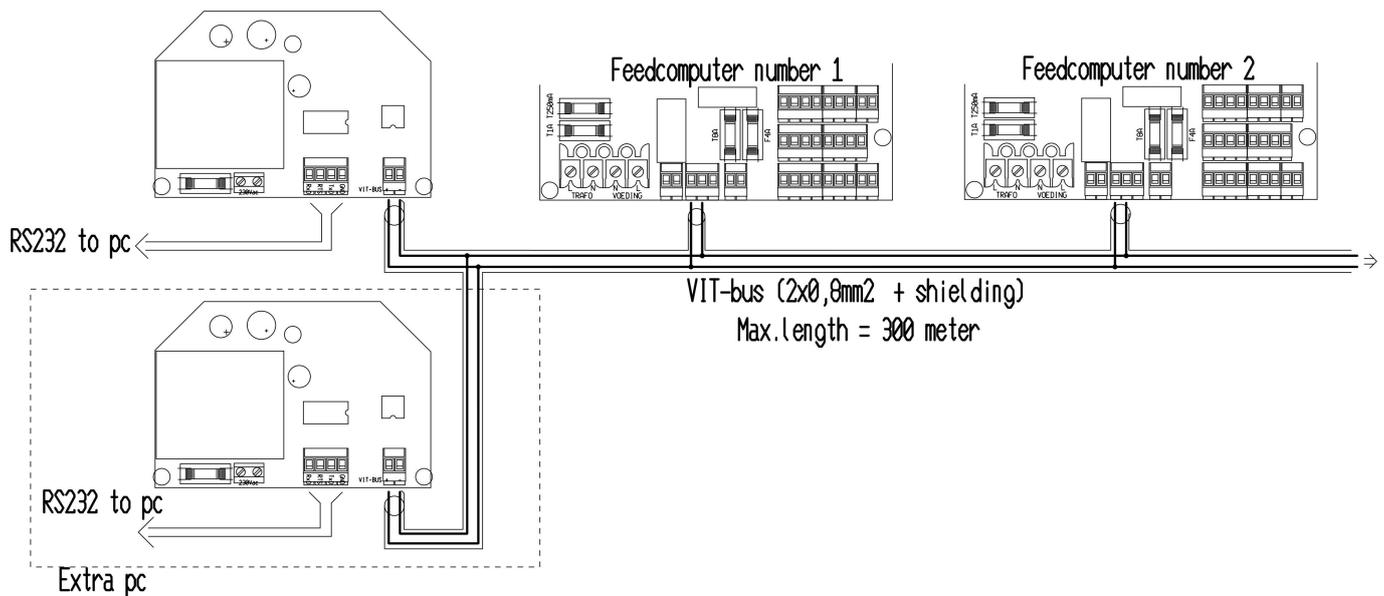


Connecting the feed computers, the IOIS and the PC

The feed computers and the IOIS are connected by a dual-cable weak current shielded cable. All feed computers and IOIS interfaces are connected in parallel.

(Feed computer: connect to clips 3 and 4, no polarity) (IOIS: connect to + and - clip. In IOIS connection only the – connection is shielded.)

Connect the computers according to the following diagram.



Note :

- Only connect the shield to the negative connection in the IOIS., i.e. not in the feed computers!!! See diagram on the next page.
- The maximum length of the entire communications cable should not exceed 300 metres.
- The connections are insensitive to polarity.
- If multiple PCs are connected, they can also be connected to the VIT bus using the appropriate IOIS interface. If multiple IOIS interfaces are used, the polarities between the IOIS interfaces should be considered.

Once the communications cards have been fitted and connections made, the following settings should be changed in the feed computers:

- Check the feed computers' EPROM versions. This should be VVC-03.4 or higher.
- Start up the installation program and set the computer number for each computer. For this consult the computer's manual. The first feed computer is number 01, the second 02 etc. Ensure that you always start with 01 and that all numbers are consecutive (do not allow gaps in the numbering).
- Check that all feed troughs have been assigned to a section. Unused troughs should be assigned to section 0.
- Check the section names. Make sure that different computers do not share section names. This is very confusing for the PC program. Also make sure that unused sections are given the section name 00000. This is very important!

Installing the PC program

Put the CD-ROM in the CD-ROM drive and the installation program starts up automatically. If this does not occur, take the following actions.

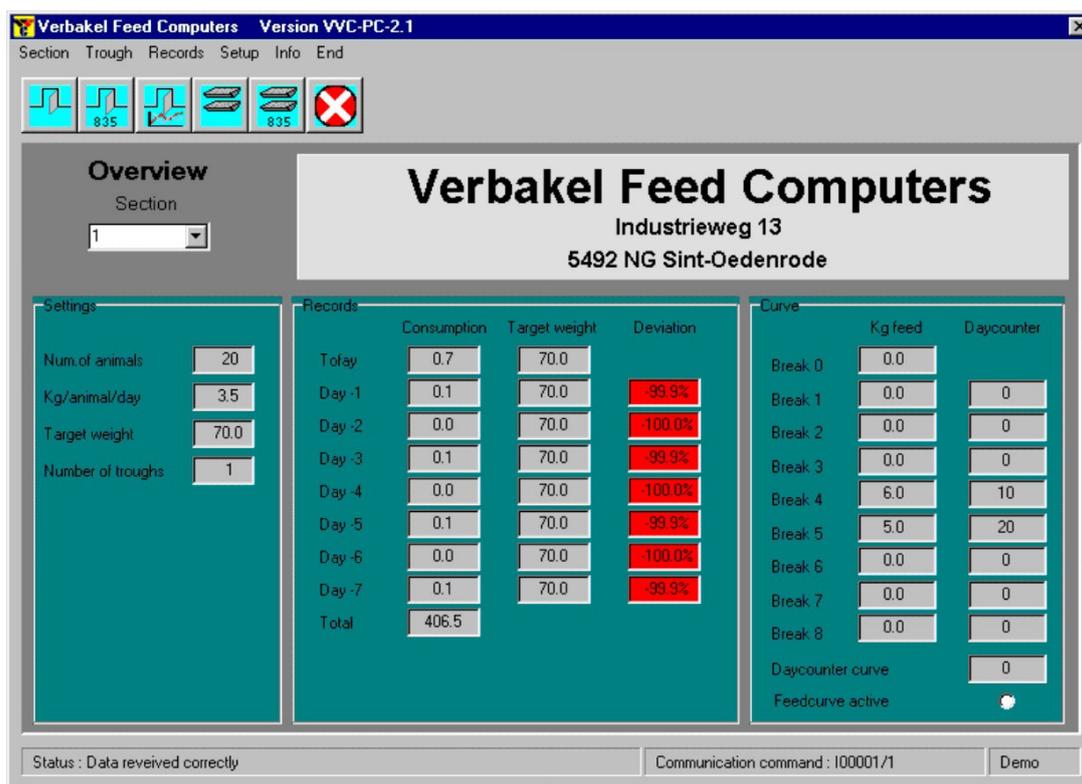
- Click START, at the left of the task bar.
- Click EXECUTE.
- Type: D:\setup.exe. (if your CD-ROM drive has a different letter then use this one. (e.g. E:\setup.exe)
- Click OK to start installing.
- Following the instructions on the screen by clicking on NEXT.
- The PC program has now been installed

Starting up the PC program

Starting up the PC program is done as follows:

- Click START, at the left of the task bar.
- Select PROGRAMS and then VERBAKEL then VVC-PC and click. The program will start up.

The program will now first ask for a password. This is set at 12345678 as standard. You can change this password at a later date. See 7.13 Menu: Change setup-access code Type in 12345678 and then the enter key. You will then find yourself in the total screen.

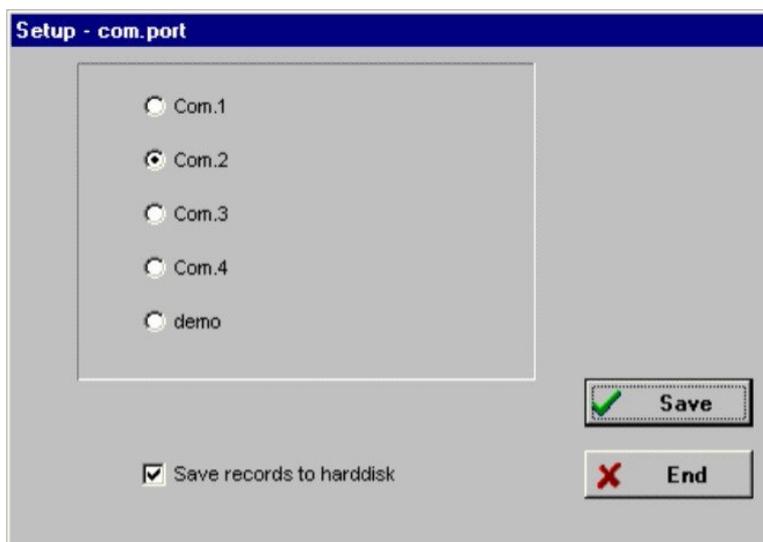


Before you can use the PC program, the computer will need certain data such as:

- Which com port should be used?
- How many feed computers are used?
- What are the different section names?
- Which troughs are in use?

Take the following steps:

Click Setup in the menu at the top of the screen and click Com port. The next screen will be opened.



The com port is set to demo as standard, which means that the program can be used as a demonstration without actually connecting feed computers. Click on the com port you are using. The screen shows a tick by the setting save records to hard disk. This means that the program saves all section and trough records to the hard disk for later use. Important: If you have more than one PC connected to the feed computers, only one of these may be used to store records on the hard disk. The tick should be removed from all other computers by clicking it. Once you are satisfied with your settings click save. These settings will now be saved.

Now you should set the feed computers' data. Take the following steps:

Select the Setup menu at the top of the screen by clicking it. Then click on Feed computers. The next screen opens.



The number of connected feed computers is set as standard at 1. If you wish to change this double click the numeral 1. This will now be selected; you can now enter the number of connected computers. Next, click on the Read data so that the computer automatically calls up the setup of the sections (like names and feed troughs). You can observe this in the status bar at the bottom of the screen. Now, all the data from the various sections are known to the PC program and you can click on End. The PC program is now ready for use.

Overview of the menu items

Here we will describe the use of all menus. Ensure that you always close an opened menu once you have finished with it, otherwise the total screen and daily records will not be updated. If you do not close the opened menu it will automatically close itself after approximately 2 minutes.

Menu Total screen

As long as none of the menus are selected, the total screen is always visible. The data from a particular section is always displayed. You will also find the past 7 days' records, the feed's target value and the differences between them. These differences are displayed in different colours so that you can check whether there are serious differences at a glance.

Field	
Green	Differences between 10% and +10%
Yellow	Differences between 15% and +15%
Red	Differences above 15% and +15%

It is not possible to change settings in this screen. You can select other sections by clicking on the arrow next to the current section name. This gives you a list of all the section names in use which you can select from.

Note: The data in the total screen is refreshed approximately once every minute. Note: You can select a different total screen: records of all sections. See 7.19 Screen arrangement.

Menu Section-general



Click Section in the heading and then General or click on the  key. The general data for the section as shown in the total screen will appear. See the image below for an example.

Section - general

Numb. of animals	<input type="text" value="20"/>
Kg/animal/day	<input type="text" value="3.5"/>
Set feed weight	<input type="text" value="70.0"/>
Number of troughs	<input type="text" value="1"/>

Section

By clicking on the arrow next to the section name you can view the other section names. Here you can select another section.. The values displayed on a grey background cannot be changed by the user. These values are determined by the feed computer. You can change those with a white background by clicking them. Enter a new value. Once the values are as you want them click on Save. The modified settings will now be sent back to the feed computer so that it can implement them. You can now click on End to close this screen

Menu Section- records



Click Section in the heading and then Records or click . The records kept by the feed computer will now appear. See the image below for an example.

	Consumption	Target consum.	Deviation
Today	22.1	70.0	
Day -1	59.1	70.0	-15.6%
Day -2	55.1	70.0	-21.3%
Day -3	55.1	70.0	-21.3%
Day -4	57.8	70.0	-17.4%
Day -5	60.1	70.0	-14.1%
Day -6	58.7	70.0	-16.1%
Day -7	53.2	70.0	-24.0%
Total Kg feed	7791.6		

Section

2

The 'Feed Consumption' column shows the above of feed consumed in kg. The 'Target Consumption' column shows what kind of feed was consumed and the final one, 'Deviation' shows the difference between the target and the actual consumption. The colour of the field changes according to the deviation:

Field	
Green	Deviation between -10% and +10%
Yellow	Deviation between -15% and +15%
Red	Deviation greater than -15% and +15%

Clicking the arrow next to the section name displays a list of all possible sections. If you so wish, you can select a different one. If you wish to reset the records to 0, click reset. To close these screens again click on End.

Note: this concerns the records kept by the feed computer itself, and not the long-term records kept by the PC.

Menu Section-feed curve



Click Section in the heading and then Feed Curve or click . All settings for the feed curve will now be shown. See below for an example.

This screen shows all of the current section's curve settings in columns. Here again, you can select another section by clicking the arrow next to the current section. This displays the feed curve as a graph. If you change any settings they will be displayed in the curve. The current day number is shown in the graph as a vertical green dotted line. If the curve is active the curve line will be green. If it is deactivated it will be displayed in red.

Note: The feed curve is activated by ticking the Feed curve activated box. When you are satisfied with your settings click Save to send the new settings to the feed computer. Click End to close the screen.

Menu Trough-general



Click on Trough in the heading and then General or click . The general settings for the relevant trough will appear.

You can switch between sections in the usual way. Click the tab of the desired trough to view its data. The values displayed on a grey background cannot be changed by the user though you can change those with a white background. Double click the setting you want to modify to select it. Enter a new value. You can also deactivate this trough by removing the tick.

Note: If the installation program is set so that the troughs cannot be deactivated by the user, removing the tick changes nothing. This trough will always be active. Once you are satisfied click on Save. You can now click on End to close this screen

Menu Trough-records



Click on Trough in the heading and then records or click . All records for that trough will be displayed. See the example below.

Trough - records

Trough
1

Portions today	370	Kg feed today	7.4
Portions day -1	988	Kg feed day -1	19.7
Portions day -2	919	Kg feed day -2	18.4
Portions day -3	919	Kg feed day -3	18.3
Portions day -4	963	Kg feed day -4	19.3
Portions day -5	1002	Kg feed day -5	20.0
Portions day -6	979	Kg feed day -6	19.6
Portions day -7	887	Kg feed day -7	17.8
Total portions	277855	Total Kg feed	5556.4

Section
[dropdown menu]

All the troughs for that section will be displayed. Select a different section in the usual way. The records for the trough appear when you click its tab. To reset all records for that trough, click Reset. Exit the screen by clicking End.

Menu Records-section

If the PC program is used at least once a day, the records from all sections for the last 300 days will be kept by the PC. This differs from the records in the previous menus which deal with the last seven days' records kept by the feed computers themselves. Select this menu by clicking Records in the heading and then Section. The following screen will open (see example)

Dep.	1				2				3			
Date	act. [Kg]	set. [Kg]	dev. [%]	total [Kg]	act. [Kg]	set. [Kg]	dev. [%]	total [Kg]	act. [Kg]	set. [Kg]	dev. [%]	total [Kg]
7.01	0.1	70.0	-100	4058	0.1	70.0	-100	13065	0.1	70.0	-100	10
8.01	0.0	70.0	-100	4058	0.0	70.0	-100	13065	0.0	70.0	-100	10
9.01	0.1	70.0	-100	4058	0.1	70.0	-100	13065	0.1	70.0	-100	10
10.01	0.0	70.0	-100	4058	0.0	70.0	-100	13065	0.0	70.0	-100	10
11.01	0.1	70.0	-100	4058	0.1	70.0	-100	13065	0.1	70.0	-100	10
12.01	0.0	70.0	-100	4058	0.0	70.0	-100	13065	0.0	70.0	-100	10
13.01	0.1	70.0	-100	4058	0.1	70.0	-100	13065	0.1	70.0	-100	10

This screen displays the records of all sections as a table. The first column (Date) shows the record date. There are also four columns per section – act.. (actual consumption), set. (target consumption), the deviation between them as a percentage (dev.) and the total consumption (total). Select another feed computer by clicking the arrow next to the current feed computer number. All feed computers present will be shown so you can make your selection. Using the scroll bars below and at the right you can scroll through the table. Each table displays 100 days from the start date on. If you want the record of another date double click the start date. Now you can enter a new date. Note: always enter a date as stated in the example. Therefore, March 15 is 15.03 and not 15.3. By clicking Printer you can print the whole table. Exit the screen by clicking End.

Menu Records-trough

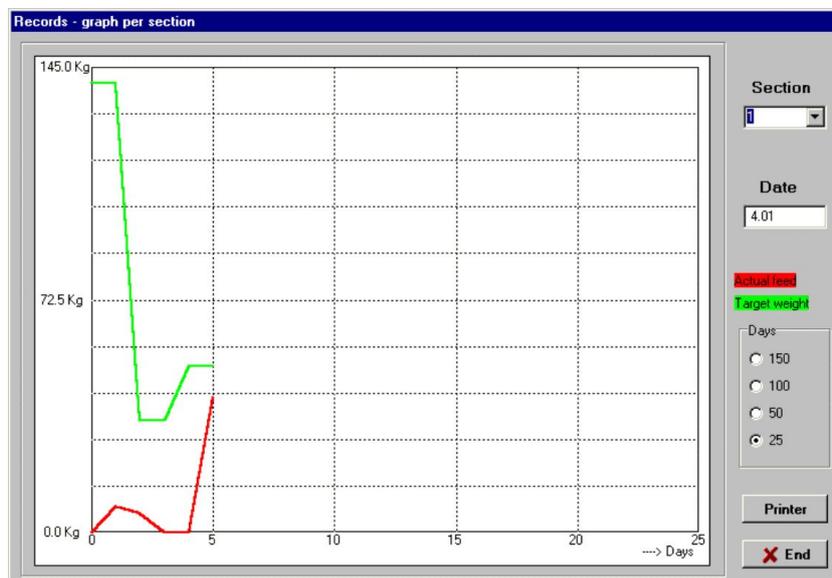
Select this menu by clicking Records in the heading and then Trough. The following screen will open.

Trough	-----01-----			-----02-----			-----03-----			-----04-----	
Date	[#]	[Kg]	[Kg]	[#]	[Kg]	[Kg]	[#]	[Kg]	[Kg]	[#]	[Kg]
7.01	3	0.1	4059	3	0.1	11184	3	0.1	11184	3	0.1
8.01	2	0.0	4059	2	0.0	11184	2	0.0	11184	2	0.0
9.01	3	0.1	4059	3	0.1	11184	3	0.1	11184	3	0.1
10.01	2	0.0	4059	2	0.0	11184	2	0.0	11184	2	0.0
11.01	3	0.1	4059	3	0.1	11184	3	0.1	11184	3	0.1
12.01	3	0.0	4059	3	0.0	11184	3	0.0	11184	3	0.0
13.01	2	0.1	4059	2	0.1	11184	2	0.1	11184	2	0.1

The records for all troughs for the current feed computer are now shown. The number of portions, number of kg and total kg are shown for each trough. You can select another computer in the usual way. The screen shows 100 days from the start date. Use the scroll bars below and right to scroll through the table. You can choose another start date as described in the previous paragraph. By clicking Printer you can print the whole table. Exit the screen by clicking End.

Menu Records-graph per section

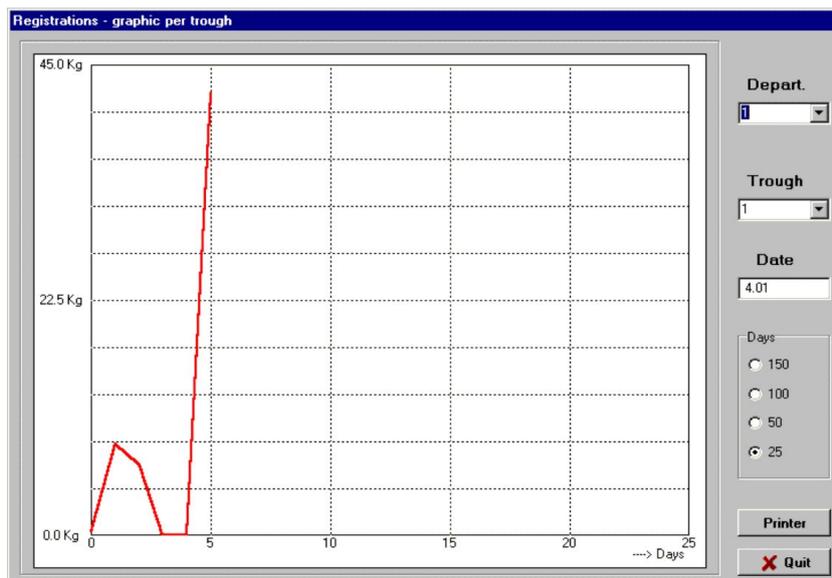
Click Records in the heading and then Graph per section. The next screen will open.



This displays the records for that section as a graph. The red line shows the current feed consumption while the green represents the target consumption. You can choose another section or date in the usual way. See the previous menus. You can display the graph in four different scales – 25, 50, 100 or 150 days from the set start date. Click on the scale to change it. By clicking Printer you can print the graph. Exit the screen by clicking End.

Menu Records-graph per trough

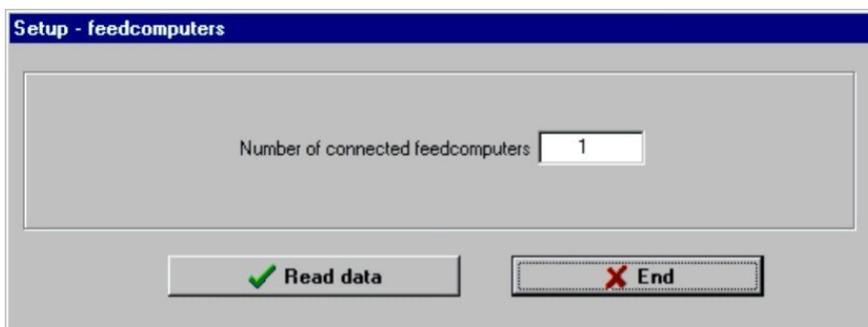
Click Records in the heading and then Graph per trough. The following screen will open.



This graph displays the records for that trough. You can choose another section in the usual way. If you require a different trough then click on the arrow next to the trough number. You will then see a list of the troughs in the relevant section. You can select one of these. The graph shows 25, 50, 100 or 150 days from the set start date. You can change the start date as described previously. By clicking Printer you can print the graph. Exit the screen by clicking End.

Menu Setup-feed computers

This menu enables you to save the names and allocations of the sections and troughs to the PC so that they can be used in the menus. Click Setup and then feed computers to open the next screen.

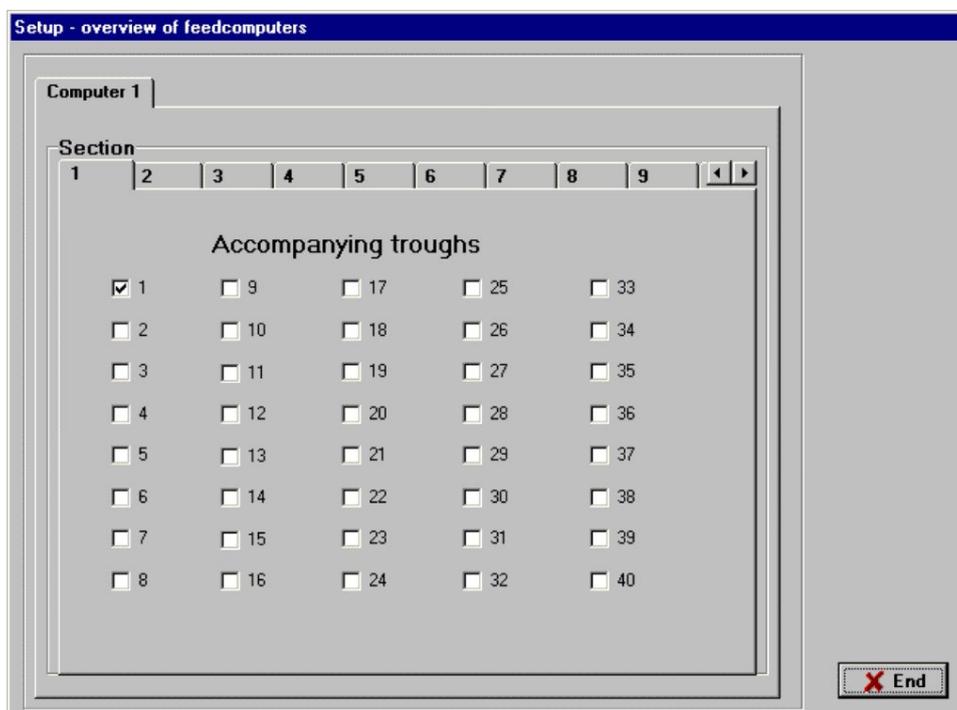


Set the correct number of feed computers selected and click Read data. The PC will now call up and save all relevant data from the feed computers connected. This is data like the section names, which trough belongs to which section etc.

Note: if the installation is modified, for example, adding/removing sections and/or troughs, changing section names or allocating troughs to other sections, then the data must be re-read so that the PC is kept up to date.

Menu Setup-overview of feed computers

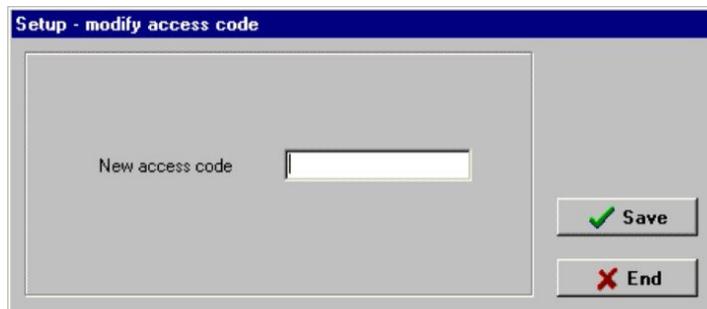
This menu gives an overview of the setup of the different feed computers. Click Setup in the heading and then Overview of feed computers. The following screen will be displayed.



By clicking the upper tab you can select the individual computers. Using the underlying tabs you can select the sections for each feed computer and then view the relevant troughs. The screen shows which trough belongs to which section. As usual, close this screen by clicking End.

Menu Setup-modify access code

You can use this menu to change your personal access code. Click Setup in the heading and then Modify access code. The following screen opens.

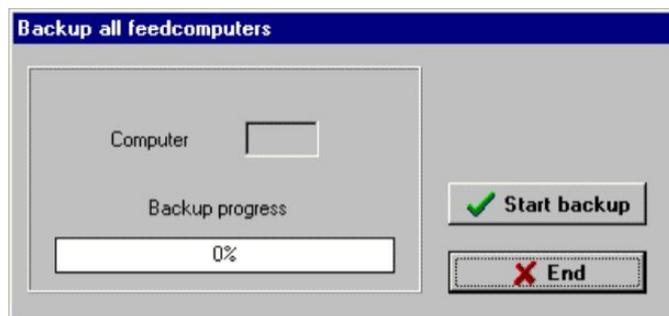


You can now enter a new code. This may consist of up to 10 numerals and/or letters. Once entered, click Save. What is the purpose of the code? When the PC program is started, it requests an access code. If this is unknown, you can still continue by clicking Continue without valid access code. The program will now start up although you will be unable to change settings. You can however view all settings and records.

Note: If the program has just been installed this password will be '12345678'. You can now change it yourself.

Menu Setup-Back up all feed computers

Using this menu you can back up all settings from all feed computers onto the hard disk. This enables you to restore these settings at a later date. This is useful if you have to switch computers due to a defect. Click Setup in the heading and then Back up all feed computers to display the following menu.



Click Start back up to gather all settings from the feed computers and save to hard disk. The progress bar shows the process' progress. The Computer box shows which feed computer is being backed up. Use the End key to close the menu.

Menu Setup-Restore all feed computer

Using this menu you can restore all backed-up feed computer settings to the relevant feed computers. Click set-up in the heading and then restore all computers to open this menu. The following screen then appears.

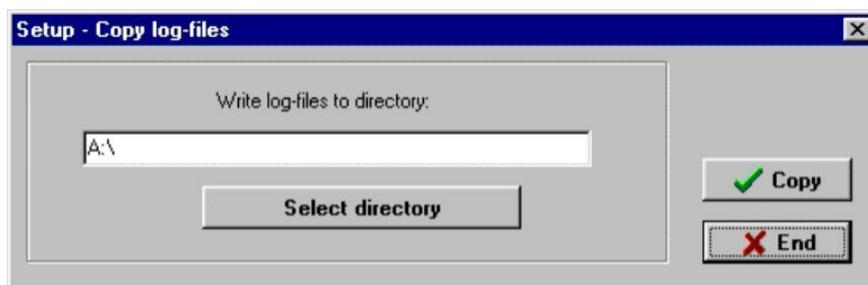


By clicking Start restore you can restore all data.

Note: If no back-up has been made you will receive an error message. The Computer box shows, which computer, is being used. Check your progress in the progress bar. Click End to close.

Menu Copy log-files

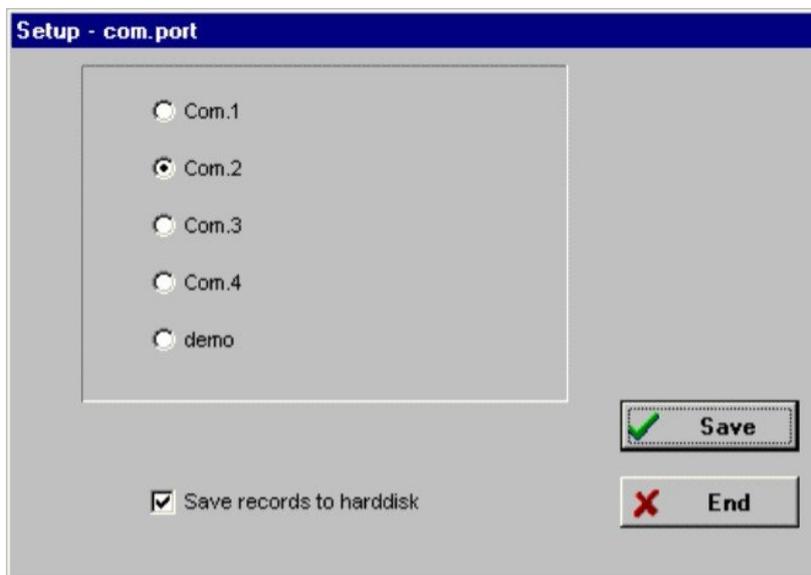
Use this menu to copy all the log-files to a floppy. Open this menu by clicking Setup and then Copy log-files. The next screen opens.



Normally the log-files will be copied to drive A. You can select another directory by clicking the Select directory button. Now you can select a different directory. Start the copy process by clicking the Copy button. You can close this screen by clicking the End button.

Menu Set-up com port

Use this menu to set the correct com port for connecting the feed computers' interface. Open it by clicking Setup and then Com port. The following screen opens.



In this screen, you can designate the com port. The demo setting does not use any ports, and the program can be used for demonstration purposes. Therefore you do not need to connect a feed computer. The Save records to hard disk setting can be activated or deactivated. If this is activated, the PC will store each day's records from the feed computers for later use.

Note I: If more than one PC is connected, only one can save records to hard disk. Therefore this option should be deactivated for the other PCs.

Note II: The PC which saves records should execute this program daily to collect data from all feed computers. Once you are satisfied with the settings, click Save and End to leave the screen.

Menu Setup-language

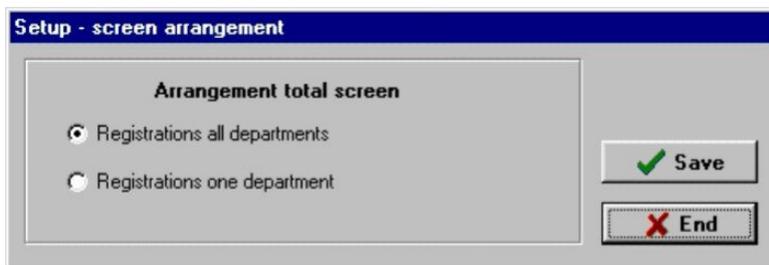
Change the program's language using this menu. Open it by clicking Set-up in the heading and then Language. The following screen opens.



If you select a different language and then click Save, all texts will be translated into that language. This setting will remain after the program has been closed. Close this menu using End.

Menu Screen arrangement

The total screen can be displayed on two different manners: normally an overview per section is selected. You can also select an overview of the records of all sections. To select, this click, on Setup then on Screen arrangement. The next screen opens.



Now you can select records per section or records of all sections. After you have made your choice, click the Save button to save this setting.

Note: When you have selected the total screen with records of all sections, the screen will show all the sections. The records of these sections will be collected periodically. After starting up the PC program the total screen will be filled slowly with the information. So it is important not to switch off the PC program.

Menu Info

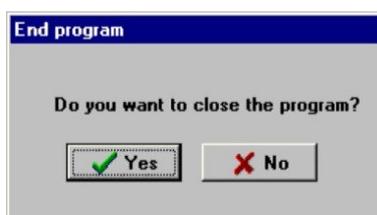
This menu shows information on this PC program, like version number, your supplier etc. Open it by clicking Info in the heading. The following screen will open.



Use the End key to close this screen

Closing the program

Close the program using End or the  key. You will be asked to confirm that you want to close the program.



Clicking YES means you definitely want to close it, while NO ensures it stays active.

The system's requirements concerning daily records

The PC program keeps records daily. This stores the quantities of feed per section and trough on the hard disk. In order to do so the program must be activated at least once every 24 hours. (Once the feed computer's clock changes from 23.59 to 00.00 the feed computer will give notice that the records are ready to be saved).

The PC now has 24 hours in which to execute this task. The data is lost after 24 hours.) If this does not happen, the previous day's records will be lost. Ideally, you should leave the program on all the time. The records are kept on hard disk for up to 300 days. Older records will be deleted automatically.

Using records files in a spreadsheet program

The records can also be used in any spreadsheet program (e.g. Excel, Quattro Pro etc.). The files should be opened or imported into the relevant program. The files can be found in the directory c:\Program Files\VERBAKEL or in the directory containing the VERBAKEL program.

The filename for the records for each section is VVC_afd*.LOG. The *-sign denotes the computer number, i.e. VVC_afd1.LOG is for computer 1, VVC_afd2.LOG is for computer 2 etc. The filename for the trough records is VVC_bak*.LOG. Again the *-sign denotes the computer number, so VVC_bak1.LOG is the name of the file for computer 1, VVC_bak2.LOG is the name of the file for computer 2, etc.

Important! Only use this data to read, i.e. do not change anything, in order to prevent errors in the program. Remark: you can copy these log-files simply by using the Copy log-files menu. See 7.16 Menu Copy log-files.

Potential problems and solutions

Error The program gives a Communication error!!!.

Cause Contact cannot be made with the feed computer.

- Solution**
- Check that the right com port has been selected.
 - Check that the feed computers' numbers are correct. To set these correctly see Starting up the PC program.
 - Check the VIT bus connections.
 - Measure the voltage on the VIT bus. This should be 15-20Vdc. Check for short circuiting.

Error The total screen does not fit your monitor.

Cause Your screen is not set to 800x600 pixels.

- Solution**
- Shut all programs and place the cursor on an empty part of the screen.
 - Right click the mouse. In the menu that appears, select Properties.
 - In the next menu select Settings. Here you will see a slide marked Desktop. Slide this over until 800 by 600 pixels appears below. Next, click OK at the bottom of the menu and follow further instructions.

Your screen is now set to 800x600 pixels and the total screen will now fit.

Note: If this setting is not possible then your computer does not fulfil the minimum requirements. See chapter 3. Minimum PC configuration. Consult your supplier as to whether this can be modified.

Error You cannot enter or modify any values.

Cause You have started up the program without a valid access code meaning that you may only look at settings and data, and not change them.

Solution Shut down the program and restart, only now with the correct code. If the code is unknown to you, consult your supplier.

Error The program tells you No data present!.

Cause You are requesting data while this has not yet been collected. The program has probably just been installed.

Solution Leave the program on for at least 24 hours so that records can be recorded.

Error The program tells you No data for this date!.

Cause You are requesting data for a date which is not available in the computer's records.

Solution Enter a correct date.

Error You are missing a date from the records list.

Cause The PC program was not active on this date, therefore no records were made

Solution Leave the program on continuously so that no more records are skipped.