

VISY-X

VISY-Monitor V 3.1

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Table of contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 5 |
| 2 | Module description..... | 6 |
| 2.1 | VISY-Monitor View | 6 |
| 2.2 | VISY-Monitor Pilot | 6 |
| 2.3 | VISY-Monitor Service | 7 |
| 2.4 | VISY-Monitor Config | 7 |
| 2.5 | VISY-Monitor Register | 7 |
| 3 | Installation and operation | 8 |
| 3.1 | Minimum system requirements..... | 8 |
| 3.2 | Installation on a standard PC | 8 |
| 3.3 | VISY-Command XL..... | 8 |
| 4 | VISY-Monitor Config module..... | 9 |
| 4.1 | Main menu "File" | 10 |
| 4.1.1 | Language | 10 |
| 4.1.2 | Exit..... | 10 |
| 4.2 | Main menu "Configuration" | 11 |
| 4.2.1 | Communication configuration | 11 |
| 4.2.2 | System configuration..... | 17 |
| 4.2.3 | Product configuration..... | 20 |
| 4.2.4 | Object configuration..... | 21 |
| 4.2.5 | Object group configuration | 29 |
| 4.2.6 | PoS configuration | 33 |
| 4.3 | Main menu "Extras" | 35 |
| 4.3.1 | Database Care..... | 35 |
| 4.4 | Main menu "Info" | 36 |
| 5 | Registration..... | 37 |
| 6 | List of figures | 39 |
| 7 | List of tables..... | 39 |



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1 Introduction

VISY-Monitor is a computer program that runs in Microsoft Windows and serves the purpose of monitoring and recording tank content data at filling stations, fuel depots, etc.

VISY-Monitor can communicate with various systems:

Measuring systems

- VISY-X of FAFNIR GmbH
- Veeder Root TLS 2
- Veeder Root TLS 300
- Veeder Root TLS 350 (R)
- Veeder Root DIM
- Encompass PAM
- ADAM 4000
- Caldwell Tank Manager
- H-protocol-compatible measuring systems

POS systems

- Base-POS (ITL-Enabler)
- Marketer 3000 (Dresser)
- Passport Europe (Gilbarco)
- Nucleus 9 (Dresser Wayne)
- Beetle (Wincor Nixdorf)
- Veeder-Root protocol compatible point-of-sale systems
- FAFNIR XML Advanced protocol compatible point-of-sale systems

Head office systems

- VISY-Tank (FAFNIR)
- VISY-Quick protocol compatible head-office systems

Printers

- Standard A4 printer for printing tables and graphics
- Serial bon printer for automatic printing of alarms

2 Module description

The VISY-Monitor program consists of the following modules:

- VISY-Monitor View
- VISY-Monitor Pilot
- VISY-Monitor Service
- VISY-Monitor Config
- VISY-Monitor Register

2.1 VISY-Monitor View

The VISY-Monitor View module is the actual display and reporting program for viewing data from up to 16 tanks.

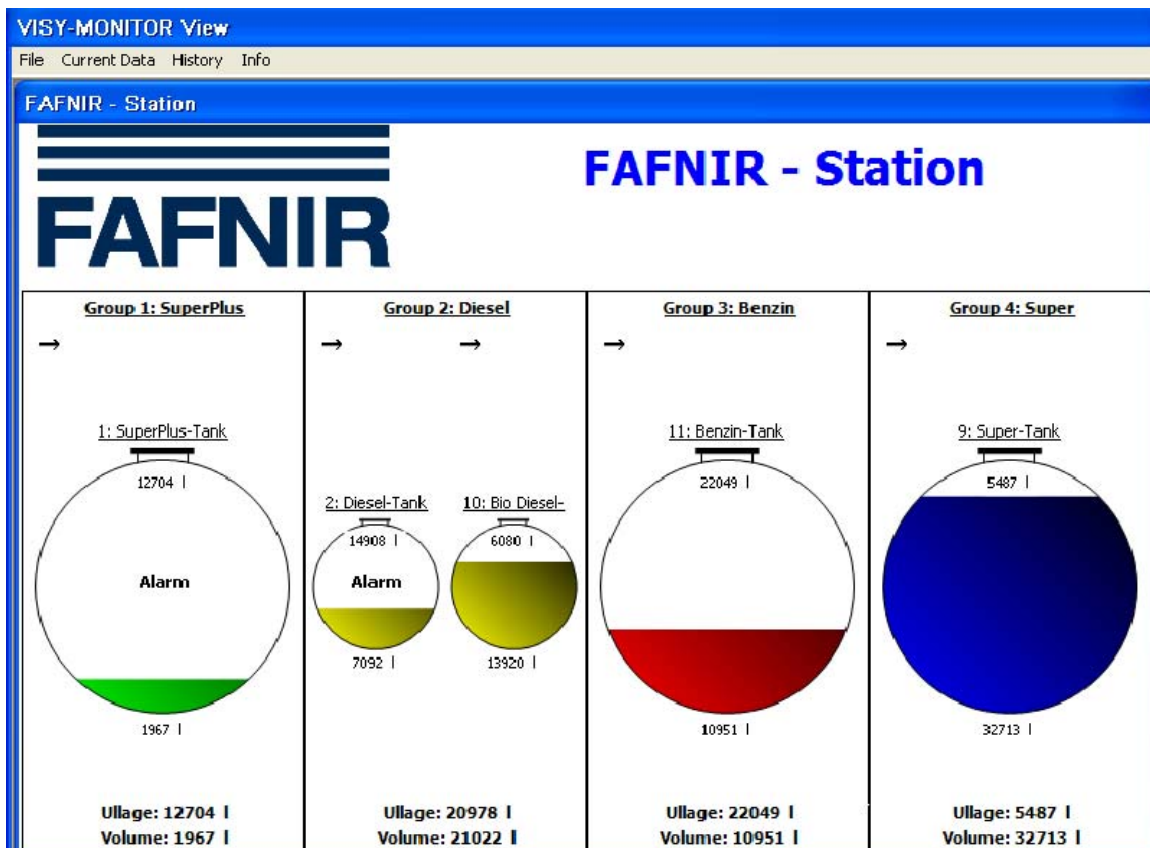


Figure 1: example view in VISY-Monitor View

2.2 VISY-Monitor Pilot

VISY-Monitor Pilot is a Windows service routine that is automatically started by the operating system and runs in the background. It starts the VISY-Monitor Service module automatically as a check entity.

2.3 VISY-Monitor Service

VISY-Monitor Service is a Windows service routine that is automatically started by the VISY-Monitor Pilot module and runs in the background. This routine does not require a user login.

It is the actual data collector, which sets up the connection to the measuring systems and to the POS systems and also stores the data in a database.

2.4 VISY-Monitor Config

The VISY-Monitor Config module is the visualised configuration user interface. The system parameters must be entered in this module.

2.5 VISY-Monitor Register

The VISY-Monitor Register module is the program responsible for the registration of the VISY-Monitor software.

For the registration of the software, this module must be called up once within 30 days after the installation of the software (see section 5).



Figure 2: register module

3 Installation and operation



In case of unstable mains we recommend the use of an uninterruptible power supply (UPS).

3.1 Minimum system requirements

- CPU 700 MHz
- RAM 512 MB
- Spare hard drive capacity for VISY-Monitor software application: 30 MB
- Windows 2000 Professional with SP4, Windows XP Professional with SP2 or Windows Vista with SP1
- Microsoft .NET Framework 2.0
- Spare interfaces for the number of connections required (VISY-X system, PoS, printer, modem, etc.)

3.2 Installation on a standard PC

For installation and configuration, you must be logged in as a user with administrator rights.

Start VISY-Monitor installation by running the setup program on the installation CD. After the installation has been completed, a new program group with an icon labelled "VISY-Monitor" is created.

The application is installed by default in the Program files directory.

The data is created in a subdirectory for all users.

The services (Pilot and Service) are automatically started by the setup routine.

3.3 VISY-Command XL

The VISY-Monitor software comes pre-installed on the VISY-Command XL.

4 VISY-Monitor Config module

Double click on the VISY-Monitor Config icon  to start the configuration program.



At the following password request you have to enter the password "visy-x"

Begin with the configuration of your system, if you are using the software for the first time. The configuration main menu includes the following menu items: "File", "Configuration", "Extras", and "Info".

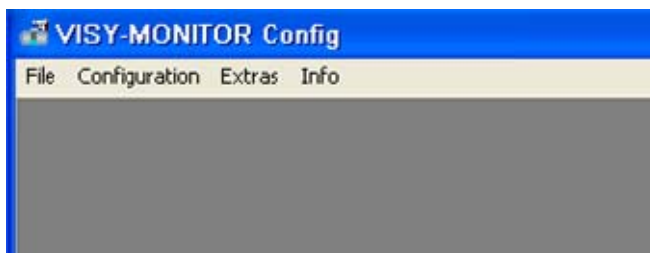


Figure 3: main menu in the VISY-Monitor Config module



The correct sequence of configuration steps from this point must be strictly observed. Otherwise, not all functions can be configured.



Changes to the settings in individual menus must be saved before the window is closed.

4.1 Main menu “File”

In the main menu “File”, you will find the following subitems:

- Language
- Exit

4.1.1 Language

Menu: File → Language

This is where you can select the language for the VISY-Monitor Config module.

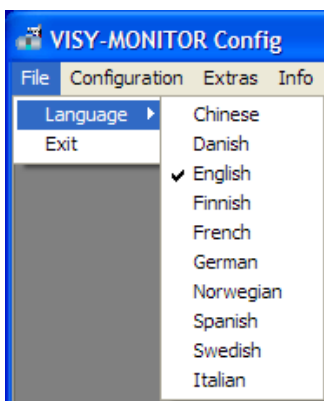


Figure 4: language selection

The language that you select is assigned a tick and comes into effect immediately.

4.1.2 Exit

Menu: File → Exit

To exit the VISY-Monitor Config program, click on the “Exit” button.

4.2 Main menu “Configuration”

In the main menu “Configuration”, you will find the following subitems:

- Communication Configuration
- System Configuration
- Product Configuration
- Object Configuration
- Object Group Configuration
- PoS Configuration

4.2.1 Communication configuration

Menu: Configuration → Communication Configuration

VISY-Monitor can communicate with multiple systems at the same time: In this menu, you can set up communication with each individual system.

Select the connection that you wish to set up from the “Communication Name” field:

- Open the drop-down list and select the connection type to be defined.

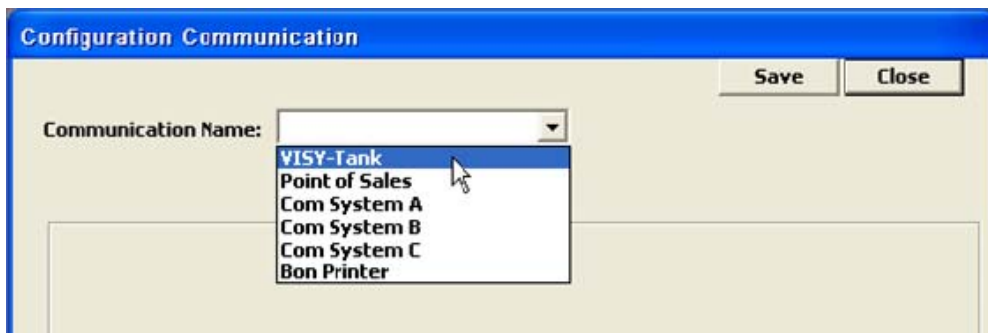


Figure 5: drop-down list for communication configuration

A connection to the following systems can be set up:

- VISY-Tank
- Point of Sales
- Com System A, Com System B, Com System C
- Bon Printer



Each connection type has to be configured and saved individually.

(1) Communication with VISY-Tank

This is where you configure the connection to the higher level VISY-Tank system.

It is possible to select either "Serial Communication" (with modem) or "Network Communication TCP/IP".

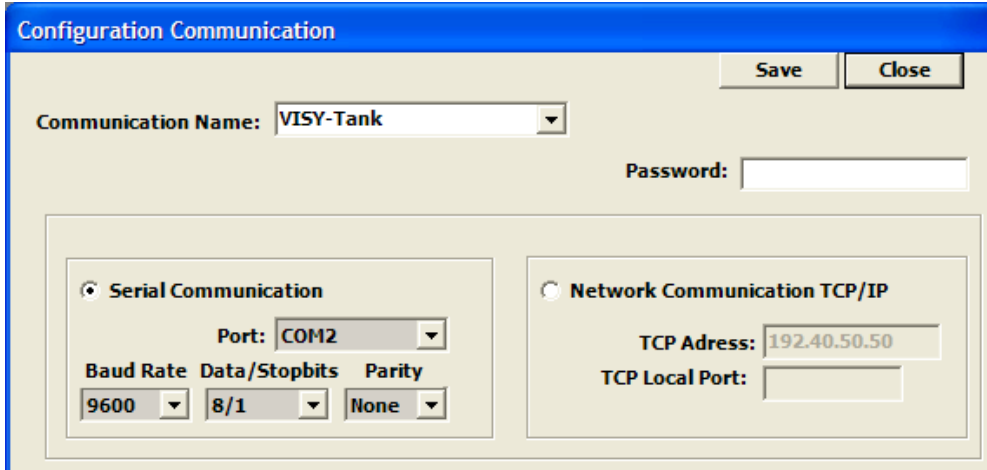


Figure 6: configuration of VISY-Tank communication

Serial Communication

For serial communication, select the settings for the following connection parameters from the drop-down lists:

- Port
- Baud Rate
- Data/Stopbits
- Parity

Network communication TCP/IP

For network communication (TCP/IP) with VISY-Tank, select "Network Communication TCP/IP" and the following connection parameters:

- TCP Address → which is displayed by VISY-Monitor Config
- TCP Local Port → which you will receive from your system administrator

Only one communication method can be selected (serial or TCP/IP).

Password

Here, you can enter a password if you wish to password-protect the connection to VISY-Tank.

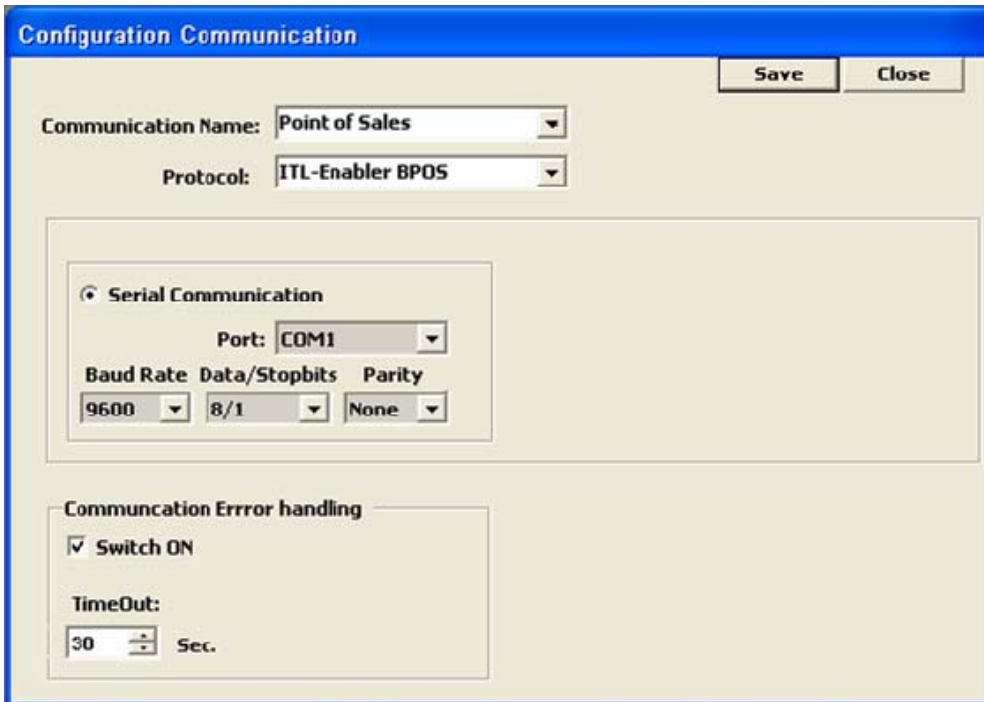
Save and Close

Important: save all settings before you close the window.

(2) Communication with the Point of Sales (PoS)

Here, you can configure the connection to a cash system (PoS) or filling station control system.

This is the connection through which tank filling levels are communicated to the PoS on request. If supported by the PoS, the sale volume (litres/gallons) dispensed by the dispensers are transmitted to VISY-Monitor.



The screenshot shows a software configuration window titled "Configuration Communication". At the top right are "Save" and "Close" buttons. The "Communication Name" is set to "Point of Sales" and the "Protocol" is "ITL-Enabler BPOS". A section titled "Serial Communication" contains a "Port" dropdown set to "COM1", and three dropdowns for "Baud Rate" (9600), "Data/Stopbits" (8/1), and "Parity" (None). Below this is a "Communication Error handling" section with a checked "Switch ON" checkbox and a "TimeOut" spinner set to "30 Sec."

Figure 7: configuration of point of sale communication

Protocol

From the drop-down list, select the relevant PoS system or filling station control system.

Serial Communication

For serial communication, select the settings for the following connection parameters from the drop-down lists:

- Port
- Baud Rate
- Data/Stopbits
- Parity

Communication Error handling (serial communication only)

Serial communication between the PoS system and VISY-Monitor can be monitored and logged:

- **Switch ON**
When the checkbox is checked, the monitoring of communication between the PoS system and VISY-Monitor is activated.
- **Time Out**
If no communication has occurred within the time interval selected here, an alarm is generated, logged and displayed in VISY-Monitor View.

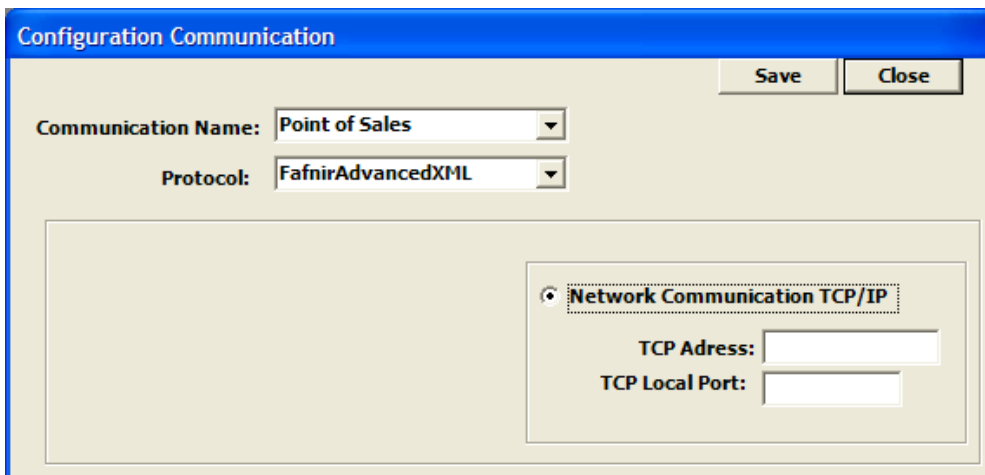
Network Communication

With the "FAFNIR Advanced XML" protocol, communication by TCP/IP is possible. Enter the settings for the following connection parameters:

- TCP Address → which you will receive from your system administrator
- TCP Local Port → which you will receive from your system administrator



To be able to enter the TCP/IP parameters described above, the "Network Communication TCP/IP" radio button must be checked.



The screenshot shows a window titled "Configuration Communication" with "Save" and "Close" buttons. It contains two dropdown menus: "Communication Name" (set to "Point of Sales") and "Protocol" (set to "FafnirAdvancedXML"). Below these is a large empty rectangular area. To the right of this area is a radio button labeled "Network Communication TCP/IP" which is selected. Below the radio button are two input fields: "TCP Address:" and "TCP Local Port:".

Figure 8: configuration of network communication

Save and Close

Important: save all settings before you close the window.

(3) Communication with the filling level measuring systems (Com System A, B, C)

Here, you can configure the connection to up to three filling level measuring systems (Communication Name: Com System A, B, C). Using the protocol selected, VISY-Monitor queries the tank filling levels, alarms and statuses of the measuring systems.

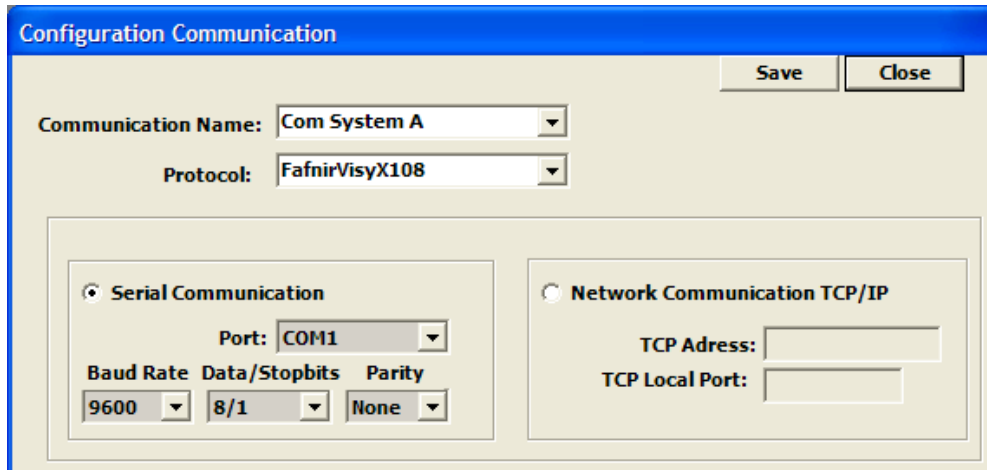


Figure 9: communication configuration for Com system ...

Changes to the settings of the individual systems A, B and C must be saved separately before the window is closed. For each system, first select the protocol and then the communication settings. "Network Communication TCP/IP" can be selected only in conjunction with the "FafnirVisyX108" protocol.

Serial Communication

For serial communication, select the settings for the following connection parameters from the drop-down lists:

- Port
- Baud Rate
- Data/Stopbits
- Parity

Network Communication

With the "FafnirVisyX108" protocol, communication by TCP/IP is possible. Enter the settings for the following connection parameters:

- TCP Address → which you will receive from your system administrator
- TCP Local Port → which you will receive from your system administrator

Save and Close

Important: save all settings before you close the window.

(4) Settings for the Bon Printer

This is where you configure the connection to the bon printer. The bon printer can be used to print out current tank content data and alarm messages.

It is possible to use either the bon printer built into VISY-Command XL (optional) or the external bon printer "EPSON TM-T58".

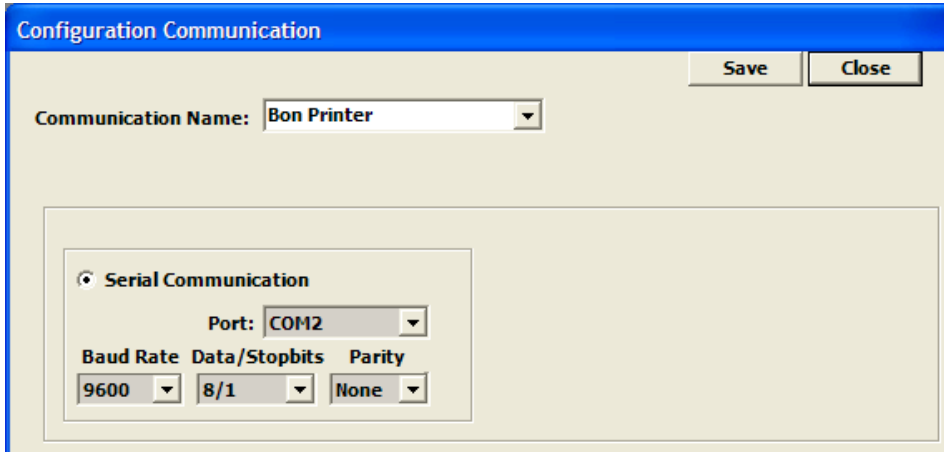




Figure 10: communication configuration for bon printer

Serial Communication


For serial communication, select the settings for the following connection parameters from the drop-down lists:

- Port
- Baud Rate
- Data/Stopbits
- Parity

 For communication with the bon printer built into VISY-Command XL, it is necessary to select the COM port (example: COM1), Baud Rate "9600", Data/Stopbits "8/1" and Parity "None".

 For communication with the external "EPSON TM-T58" bon printer, the port must be set to "Ext. Printer". This option is possible only if the driver for the Epson printer has been installed. Printer settings are managed through the operating system.

 If no bon printer is available, you should select "- - -".

 A standard DIN A4 printer is not configured using VISY-Monitor, but rather through the PC's operating system.

Save and Close

Important: save all settings before you close the window.

4.2.2 System configuration

Menu: Configuration → System Configuration

In the System Configuration menu, it is possible to enable a range of data logging functions.

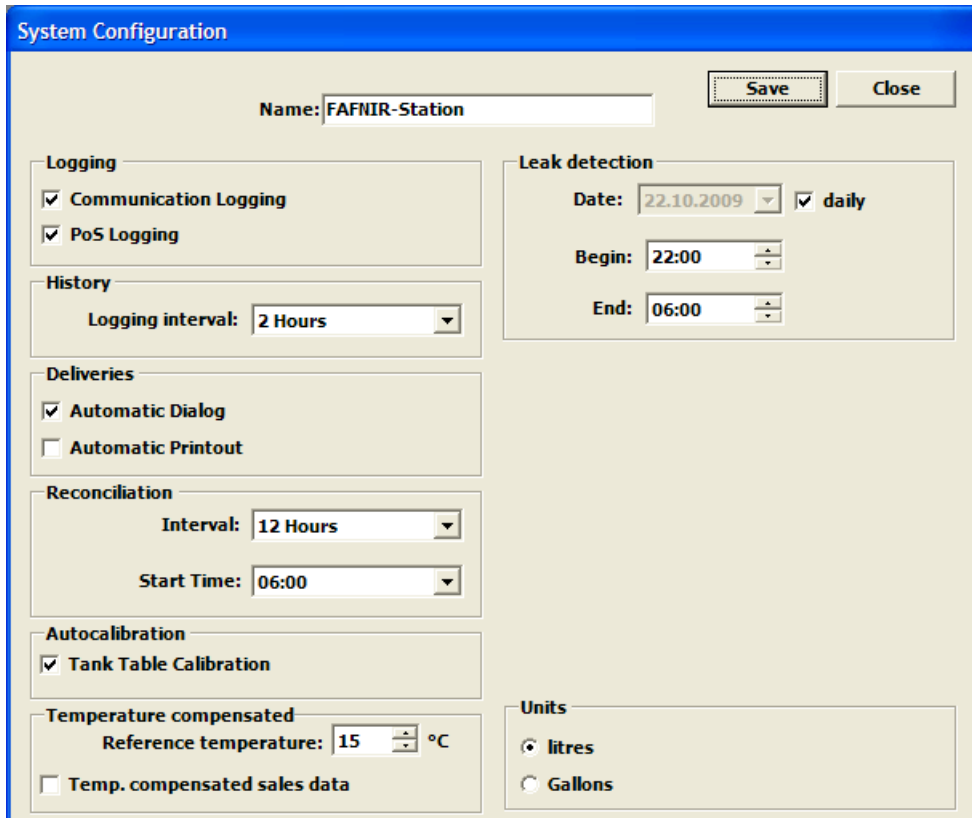


Figure 11: system configuration

Name

Here, enter the name of your filling station.

Logging

In the “Logging” section, various data logging options are available for selection:

- **Communication Logging**
If the checkbox is checked, the communication between VISY-Monitor and the measuring systems is also written to a separate log file.
- **PoS Logging**
If the checkbox is checked, the communication between VISY-Monitor and the PoS system is also written to a separate log file.

History

- **Logging Interval**

This setting defines how often filling level data should be logged (every 0, 1, 2, 3, 4, 6, 8, 12, 24 hours). The following data are recorded in the log report:

- Volume
- Product level
- Temperature
- Water level



Logging is deactivated if "0 Hours" is selected.

Deliveries

- **Automatic Dialogue**

After the completion of a delivery an automatic message with the delivery data will be displayed with VISY-Monitor View, if this checkbox is checked.

- **Automatic Printout**

After the completion of a delivery an automatic printout with the delivery data is sent to the bon printer, if this checkbox is checked.

Reconciliation

Reconciliation is process by which stocks are accounted for by comparisons between the tank filling levels, deliveries and sales at defined time intervals. The reconciliation report can be displayed in VISY-Monitor View and printed out.



While reconciliation is in progress, neither the computer that is running VISY-Monitor, nor VISY-Command nor the PoS may be switched off.



Reconciliation is not active unless a PoS system has been activated in the communication menu since the sales data from the PoS system is required for a reconciliation.

- **Interval**

Definition of the time-related interval in which the stocks are logged for the reconciliation report.

- **Start Time**

From this drop-down list, you can select the start time for the reconciliation report. In the example above, the reconciliation report is created every 12 hours beginning 06:00 o'clock (see Figure 11).

Autocalibration

In the Autocalibration section, the automatic tank calibration can be switched on or off.

- **Tank Table Calibration**

If the checkbox is checked, the data for the autocalibration of the tanks is saved.

The "Autocalibration" field is not active unless a PoS system has been activated in the communication menu since the sales data from the PoS system is required for an autocalibration.

Temp. Compensation

With each delivery, a temperature-compensated volume is calculated for the reference temperature (for 15 °C in this example).

- **Reference Temperature**

This is where you enter the reference temperature on which the calculation of temperature-compensated volumes is based.



Temp. compensated sales data

If the dispensers provide temperature compensated sales volumes, this checkbox must be checked. Otherwise the result of the reconciliation is wrong.

Static leak detection

The leak detection function is used to check the tank fill levels for possible losses that may be attributable to leaks or even thefts while the filling station is closed (e.g. overnight).

- **Date**

Here, you must enter the starting date on which the leak check is to be performed. If the checkbox "daily" is marked, the leak check will take place on a daily basis from the entered date onwards.

- **Daily**

From the start date onwards, monitoring takes place daily for the period determined by the start and end time. If the start date is in the past, the monitoring process begins on the current day.

- **Begin**

This is where you enter the start time for the monitoring period described above.

- **End**

This is where you enter the end time for the monitoring period described above. If the end time is before the start time, the monitoring process ends on the following day at the end time.

A report of loss volumes can be displayed and printed out in the VISY-Monitor View module.

Units

Here the volume unit can be chosen (litres/gallons).



After changing the unit, VISY-Monitor View must be restarted.

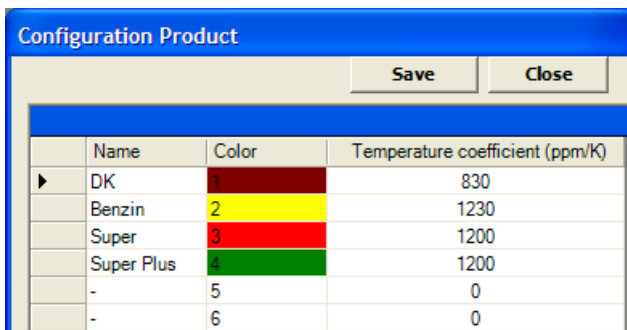
Save and Close

Important: save all settings before you close the window.

4.2.3 Product configuration

Menu: Configuration → Product Configuration

To ensure that you can easily differentiate the products displayed in VISY-Monitor, enter a unique name for each product and assign each product a colour of your choice.



| | Name | Color | Temperature coefficient (ppm/K) |
|---|------------|-------|---------------------------------|
| ▶ | DK | 1 | 830 |
| | Benzin | 2 | 1230 |
| | Super | 3 | 1200 |
| | Super Plus | 4 | 1200 |
| | - | 5 | 0 |
| | - | 6 | 0 |

Figure 12: product configuration

Name

In the column "Name", name the products available at the filling station. No more than one instance of one product name is permitted.

Colour

In the column "Colour", assign a colour of your choice for each product. We recommend that you select distinct, dark colours. To select a colour, click on the cell concerned. You can now pick a colour from the colour table that opens.

Then confirm the selected colour with OK.

Temperature Coefficient (ppm/K)

In the "Temperature Coefficient (ppm/K)" column, you need to enter the coefficient of thermal expansion for the product concerned (400 to 1600 ppm/K).



Please request the necessary temperature expansion coefficients from your supplier. As an approximation, it is also possible to use a general table value (see Table 1).

| Fuel | Temperature expansion coefficient based on 15 °C (ppm/K) |
|---------------|---|
| Regular | 1230 |
| Super | 1200 |
| Super Plus | 1200 |
| Diesel | 830 |
| Biodiesel RME | 820 |
| E25 | 1180 |
| E85 | 1110 |

Table 1: temperature expansion coefficient

Save and Close

Important: save all settings before you close the window!

4.2.4 Object configuration

Menu: Configuration → Object Configuration

Up to 16 tanks (objects) can be monitored. Each tank, or tank chamber, has to be created as an individual object in the object configuration menu.

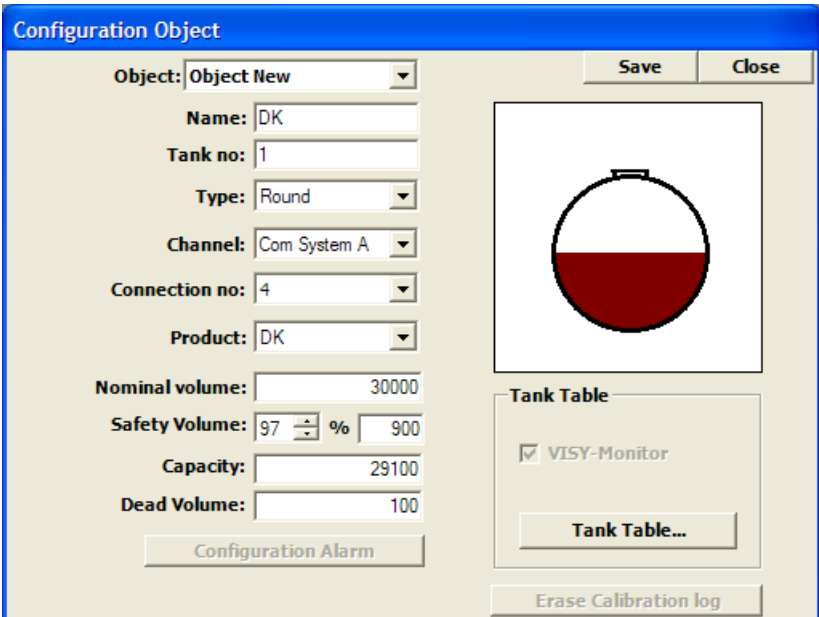


Figure 13: object configuration

Object

Create a new object (tank/tank chamber) by selecting "Object New".

Name

Enter a name for the tank, e.g. DK a for diesel tank.

Tank No.

For entering the tank number that corresponds to the PoS.

Type

Use the drop-down list to select the physical tank shape.

- Round = cylindrical horizontal
- Rectangle = rectangular
- Cistern = cylindrical vertical tank



After it has been saved, the tank shape can no longer be changed!

Channel

From the drop-down list, select the communication channel (COM System A, B or C) for the connection to the tank filling level measuring system.

Terminal number

Enter the number of the tank assigned to the terminal on VISY-Command.

Product

From the drop-down list, select the product that this tank contains.

Nominal Volume

Enter the tank's actual maximum capacity.

Safety Volume

For safety reasons, a tank would not usually be filled to its nominal volume. The remaining space is known as the safety volume.

If you enter a value of 50 % to 100 % of the nominal volume, the effective volume of the tank (Capacity) will then be calculated for you. The remaining safety volume appears in the field to the right of the percentage value automatically (non-editable field).

The permissible degree of filling is equivalent to the value to which the overfill prevention sensor (OPS) – if available – has also been set. The system uses this value to calculate the spare volume up to the overfill prevention sensor.

Capacity

The capacity is the effective volume of the tank. It is calculated by the system, by subtracting the safety volume from the nominal volume. This field is not editable.

Dead Volume

If known, enter the dead volume here. The dead volume is the volume that is located below the suction pipe in the tank.



The "Configuration Alarm" and "Erase Calibration log" buttons do not become active until the settings have been saved.

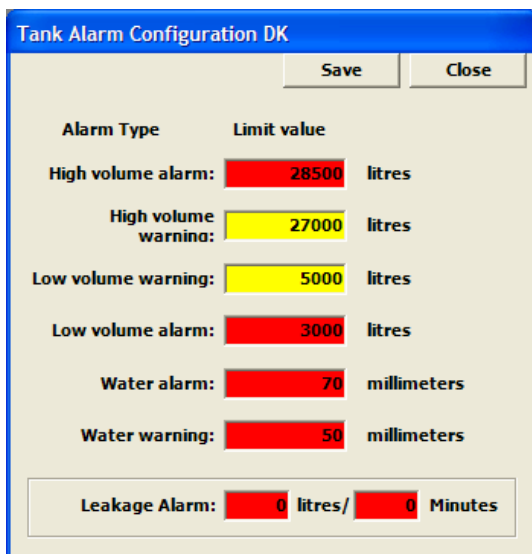
Save

Save your entries by clicking on "Save".

Configuration Alarm

The alarm cannot be configured until the new object has been saved.

With a click on the button "Configuration Alarm", the window "Tank Alarm Configuration" opens.



| Alarm Type | Limit value | Unit |
|-------------------------------------|-------------|-------------|
| High volume alarm: | 28500 | litres |
| High volume warning: | 27000 | litres |
| Low volume warning: | 5000 | litres |
| Low volume alarm: | 3000 | litres |
| Water alarm: | 70 | millimeters |
| Water warning: | 50 | millimeters |
| Leakage Alarm: 0 litres / 0 Minutes | | |

Figure 14: tank alarm configuration

- Alarm and Warning**
 Enter the values for the different alarms and warnings in the respective fields (see Figure 14).
- Leakage Alarm:**
 In the fields "litres/gallons" and "Minutes", enter the alarm values that, if exceeded, are supposed to trigger an alarm.

Erase Calibration log

Clicking on the “Erase Calibration log” deletes the tank data previously determined in the autocalibration function.

Interface (only for the ADAM probes)

The interface settings are only required if ADAM probes are connected to the VISY-Monitor.

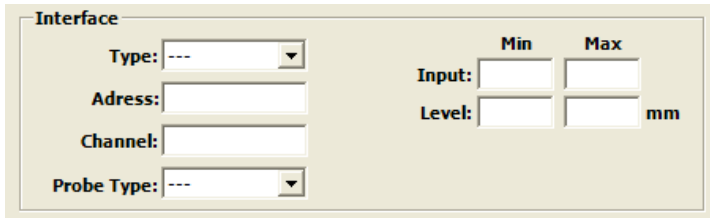


Figure 15: interface ... (only in connection with ADAM probes)

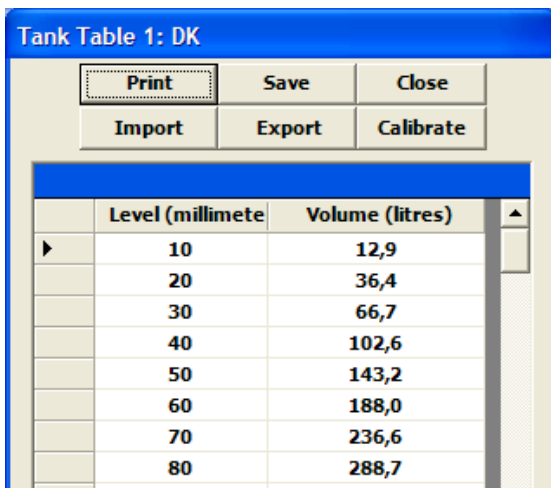
Tank Table

The tank table and its graph show the relationship between filling volumes and filling levels in a particular tank.



To be able to enter a tank table, the “VISY-Monitor” checkbox must be ticked first. Only then is the “Tank Table” button active.

The tank table window enables you to enter and calibrate the parameter pairings of the table and to print, export, save and close the table.



| | Level (millimete) | Volume (litres) |
|---|-------------------|-----------------|
| ▶ | 10 | 12,9 |
| | 20 | 36,4 |
| | 30 | 66,7 |
| | 40 | 102,6 |
| | 50 | 143,2 |
| | 60 | 188,0 |
| | 70 | 236,6 |
| | 80 | 288,7 |
| | --- | --- |

Figure 16: tank table

The tank table contains the columns Level (millimetres) and Volume (litres/gallons). The parameter pairings can be entered manually, calculated automatically or imported.

- **Manual entry**

For manual entry, specify the parameter pairings for the filling level and litres/gallons.



As soon as you click on the Save button, the filled in data will be converted into a tank table with increments of 10 mm.

- **Automatic calculation**

It is also possible to have the tank table calculated automatically (approximation). For this, the tank table must be blank, i.e. must not contain any values. In the Filling Level column, enter the diameter of the tank in mm and, in the Volume column, enter the tank's nominal volume in litres/gallons. To finish, click on "Save".



As soon as you click on the Save button, the system automatically calculates a tank table in increments of 10 mm and displays the generated table.



To delete an already existing tank table, highlight all the parameter pairings using the Ctrl+A keyboard shortcut and then delete them.

- **Import**

Another option is to import a tank table that already exists. VISY-Monitor import tank tables in 2 different file formats:

- (1) vtt file format
in this format the value pairs are listed in the following form:
<level> TAB <volume> CrLf
- (2) txt file format
in this format the value pairs are listed in the following form:
<level> ; <volume> CrLf



The unit of the filling level is mm, the unit of the volume is litres/gallons. The file to be imported must contain only figures and text delimiters (tabs, decimal points, semicolons) without the units [mm, l/gall].

Print

Clicking on this button prints out the tank table.

Export

The input and stored tank table can be exported.

Two export possibilities exist:

- (1) Export of the tank table in the VISY-Setup file format
In this case the file extension ".vtt" is to be selected. The tank table from VISY-

Monitor will be converted into 128 value pairs and will be saved in a file format which can be read out from VISY-Setup.



If IFSF-LON and/or VISY-View is connected with VISY-Command, this exported tank table in vtt-file-format must be transmitted to the VISY-Command by the VISY-Setup Software.

- (2) Export of the tank table in text file format
In this case the file extension “.txt” is to be selected. Then the tank table from VISY-Monitor will be saved with the original value pairs in text file format and can be read out with a text editor.

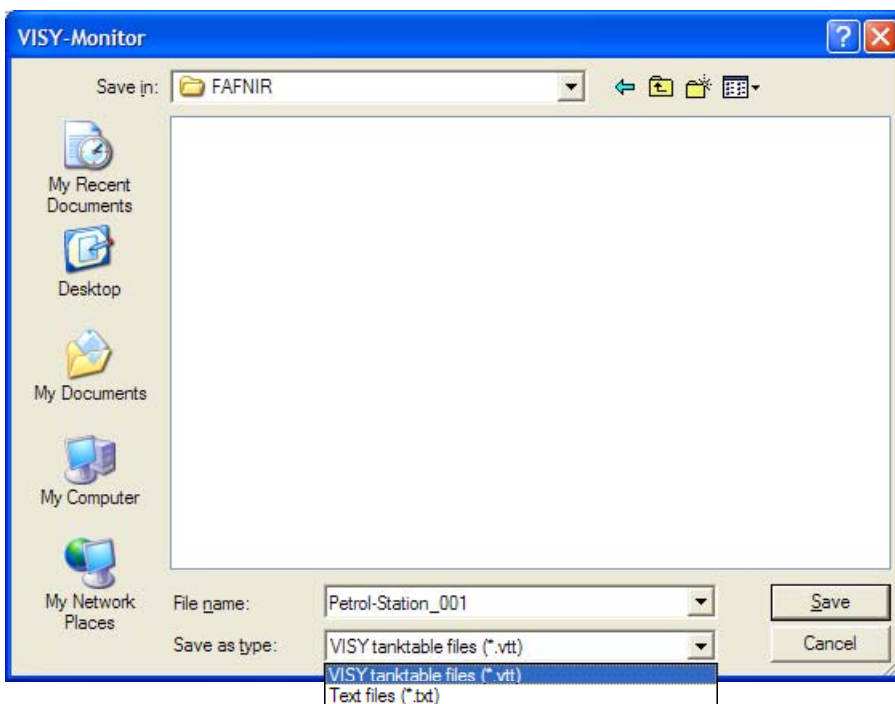


Figure 17: export of the tank table

Save and Close

Important: save all settings before you close the window.



When saved, the values in the tank table are converted into increments of 10 mm.

Calibrate

The tank table is calibrated automatically (autocalibration) based on the volumes dispensed by the dispensers. In this window, the calibrated values and the original values can be displayed in table and graph form.

The original values/graph are coloured blue, the calibrated values/graph are in red.

- **Graphic**
displays the graph of the "Filling level" and "Volume" columns from the original table.

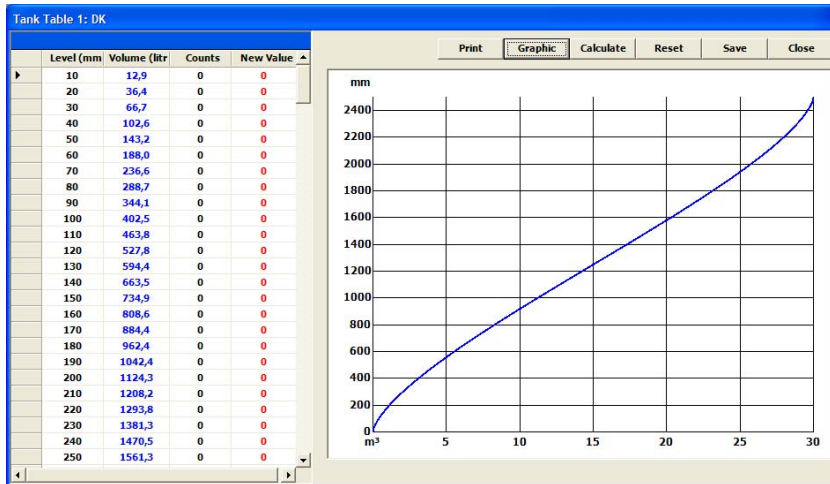


Figure 18: graph of original table

- **Calculate**
A new table containing the calibrated values and the associated graph are displayed in red. The "Counts" column shows the frequency of calibrations for a particular filling level. The "New Value" column contains the resulting, calibrated volumes.

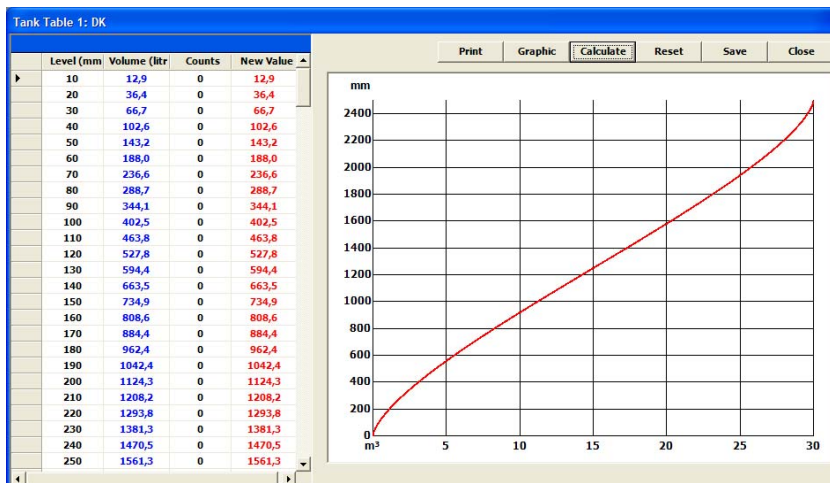


Figure 19: graph of calibrated tank table

- **Print**
The tank table and graph can be printed only on the operating system's default printer.
- **Reset**
Clicking on "Reset" restores the original tank data and undoes any saved changes to the calibrated tank table, provided the table calibration window has not been closed since the changes were made.

- **Save**
The tank data determined in the autocalibration are saved and applied as a new tank table for this tank.
- **Close**
Clicking on this button closes the window.

Error check

Before the calibrated tank table is calculated, it is possible to check the table for errors by double-clicking on the graph. Erroneous table values are then represented as horizontal lines inside the semi-circle, in which case corrections will need to be made.

More minor input errors in the tank table are corrected automatically in the autocalibration process.

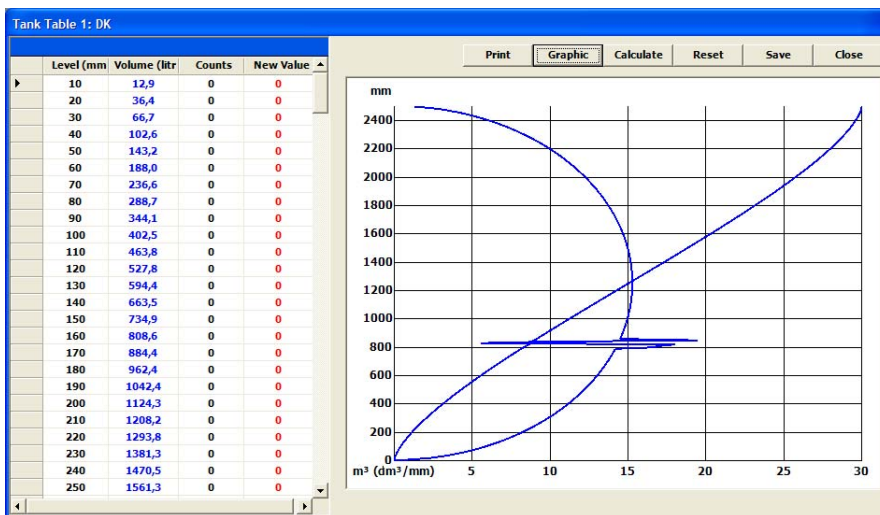


Figure 20: error display graph

4.2.5 Object group configuration

Menu: Configuration → Object Group Configuration

In VISY-Monitor View, tanks are always displayed in what we refer to as object groups.

Each object group can consist of an individual tank or of multiple, interconnected tanks (siphoned tanks) containing the same type of product.

Separate object groups need to be created for each individual tank or group of interconnected tanks.

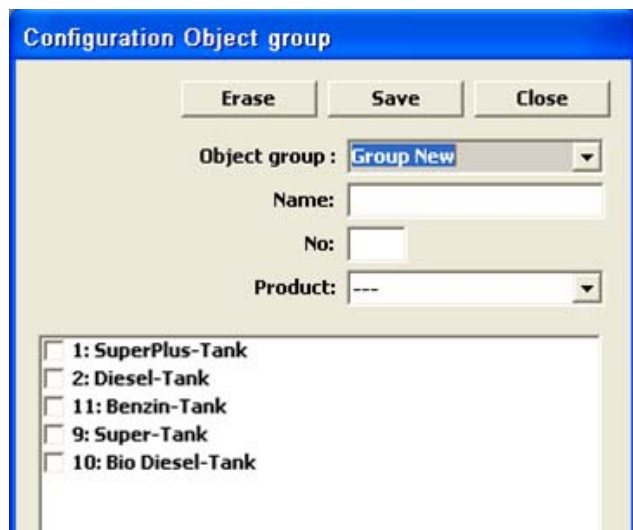


Figure 21: object group configuration

Object group

To create a new object group, select “Group New” in the drop-down list. An object group may comprise one or multiple tanks.

Name

Here, enter the name for the object group. Normally, the name is the designation of the product in the tanks of which an object group is to be formed (e.g. Diesel)

No.

Here, enter the number of the object group to be created (normally beginning with 1 and then for each further object group n+1)

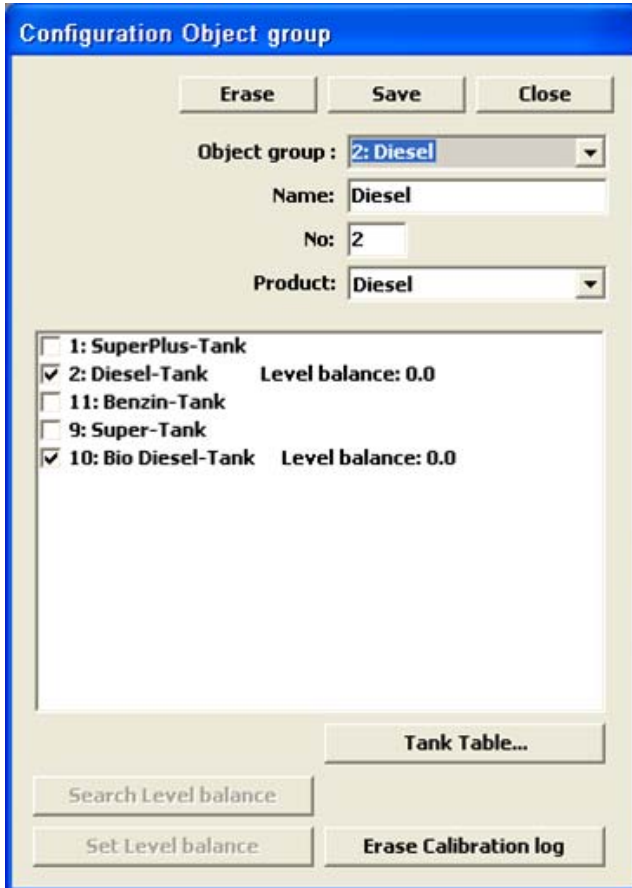
Product

From the drop-down list, select the product that the tanks in this object group contain. In the list below, click on the tanks that you wish to associate with this object group.

Save

After entering all the above-mentioned data, save your entries by clicking on “Save”.

As soon as you save a new object group, the “Tank Table ...” button is selected automatically. Entering a group tank table is mandatory.



Configuration Object group

Erase Save Close

Object group : 2: Diesel

Name: Diesel

No: 2

Product: Diesel

1: SuperPlus-Tank

2: Diesel-Tank Level balance: 0.0

11: Benzin-Tank

9: Super-Tank

10: Bio Diesel-Tank Level balance: 0.0

Tank Table...

Search Level balance

Set Level balance Erase Calibration log

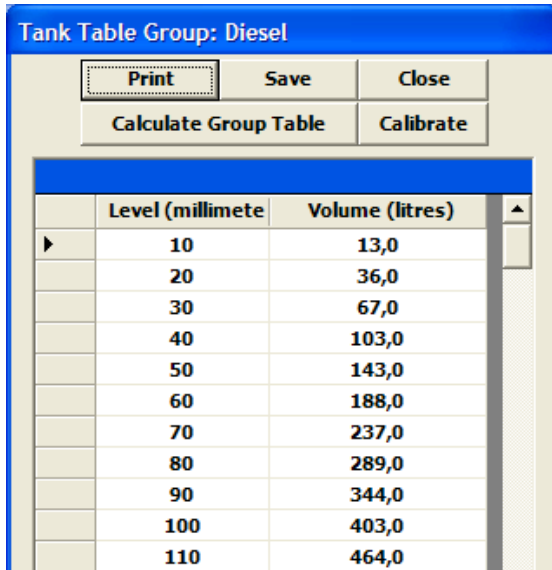
Figure 22: entering the object group configuration

Erase Calibration log

With a click on the “Erase Calibration log”, the new volumes of the group tank table previously determined in the autocalibration function are deleted.

Tank Table...

With a click on "Tank Table ...", the group tank table is opened.



| | Level (millimete) | Volume (litres) |
|---|-------------------|-----------------|
| ▶ | 10 | 13,0 |
| | 20 | 36,0 |
| | 30 | 67,0 |
| | 40 | 103,0 |
| | 50 | 143,0 |
| | 60 | 188,0 |
| | 70 | 237,0 |
| | 80 | 289,0 |
| | 90 | 344,0 |
| | 100 | 403,0 |
| | 110 | 464,0 |

Figure 23: group tank table after the calculation

- **Calculate Group Table**

To enable reporting and to have the tank group displayed in VISY-Monitor View, it is necessary to calculate the group tank table.

Clicking on this button calculates the group tank table. It merges the individual tank tables of all the tanks associated with this group. This function must also be executed even if the group contains only the one tank.



Save the newly calculated group table by clicking on the "Save" button.

- **Print**

Data from the group tank table is printed out.

- **Calibrate**

A new window opens enabling you to calibrate the group tank table and a graph of calibration points is displayed.

Print: The tank table and the graph are printed out.

Graphic: The graphic to the indicated values is displayed.

Calculate: The number of autocalibration points and the resulting data of the calibrated tank table are displayed.

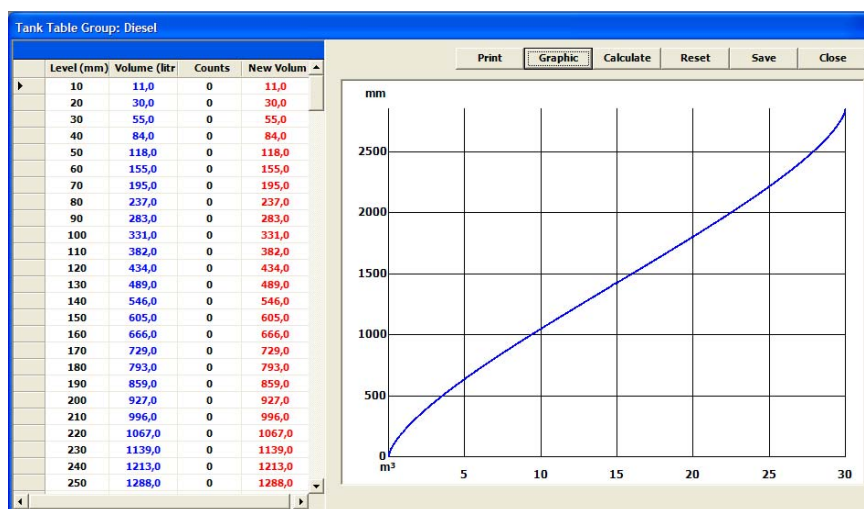


Figure 24: calibrated tank table

Reset: Clicking on "Reset" restores the original tank data and undoes any saved changes to the calibrated tank table, provided the table calibration window has not been closed since the changes were made.

Save: The tank data determined in the autocalibration is saved and applied as a new group tank table.

Close: Clicking on this button closes the window.

4.2.6 PoS configuration

Menu: Configuration → PoS Configuration → “Select PoS System”

This function is used to create the table for the pump grades/tank assignment. VISY-Monitor needs this table for the “sales data” report, for autocalibration and for the reconciliation report.

One dispenser may feature multiple dispenser points. With a typical, double-sided dispenser, these are dispenser points “1” and “2”, for example. One dispenser point may have multiple outlets (dispenser hoses) from which a particular product is dispensed. Each one of these outlets is referred to as the pump grade and is identified by the product code.

The product ID depends on the PoS system concerned.

| PoS system | Product code range |
|------------------|--------------------|
| Passport Europe | 0 to 9 |
| ITL-Enabler BPoS | 0 to 9 |
| S&B TMS 20/30 | 1 to 8 |

Table 2: assignment of product code

The pump grade/tank assignment (Pump Grade/Tank) can be entered manually or determined automatically. Whichever method is used, it is always necessary to enter the quantity of dispenser points and the quantity of grades for each dispenser point.

No. of pumps:

Here, enter the quantity of dispenser points. The quantity of dispenser points must tally with the quantity of dispenser points on the PoS system.

From the drop-down list, select each dispenser point (“Pump”) one by one to configure the product code and tank no. mapping for each pump grade.

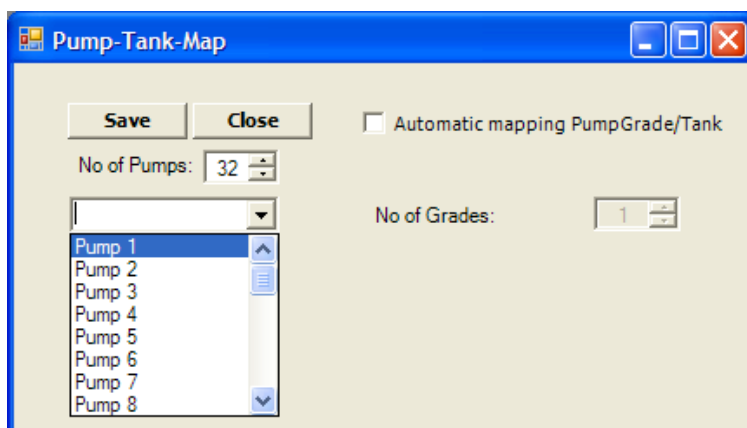


Figure 25: selection of the dispenser points in the tank-pump mapping

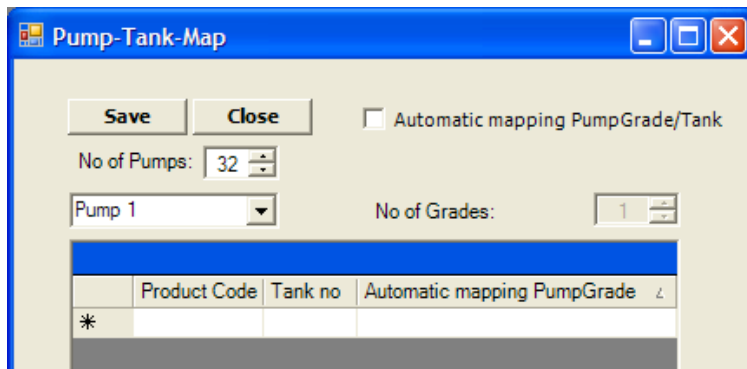


Figure 26: pump-tank mapping

Product Code

In the Product Code column, enter the product code sent by the PoS system. The product code must be in the range 0 to 9.

If the mapping is not known, do not make any entry. VISY-Monitor is able to determine mapping configurations automatically. This is explained in the “Automatic mapping PumpGrade/Tank” section.

Tank No.

In the Tank No. column, enter the tank from which the product is being taken. The tank no. must be in the range 1 to 16.

If the mapping is not known, do not make any entry. VISY-Monitor is able to determine mapping configurations automatically. This is explained in the “Automatic mapping PumpGrade/Tank” section.

Automatic mapping

The checkbox in the “Automatic mapping” column is non-editable. The box is checked automatically following the successful, automatic detection of the product code and tank no. mapping configuration.

Automatic mapping PumpGrade/Tank

If the assignment of product code and tank no. (pump-tank mapping) is not known, this assignment can also be automatically determined. For this, the checkbox must be checked. In addition, you must enter the quantity of dispenser points and the quantity of grades for each dispenser point.

The automatic determination of the pump-tank mapping can continue over a period of several months.

Save

Important: save all settings before you close the window.

Close

Clicking on this button closes the window.

4.3 Main menu “Extras”

In the main menu, there is only the following subitem:

- Database Care

4.3.1 Database Care

The database care can be used to delete or compress data histories (not required under normal operating conditions).

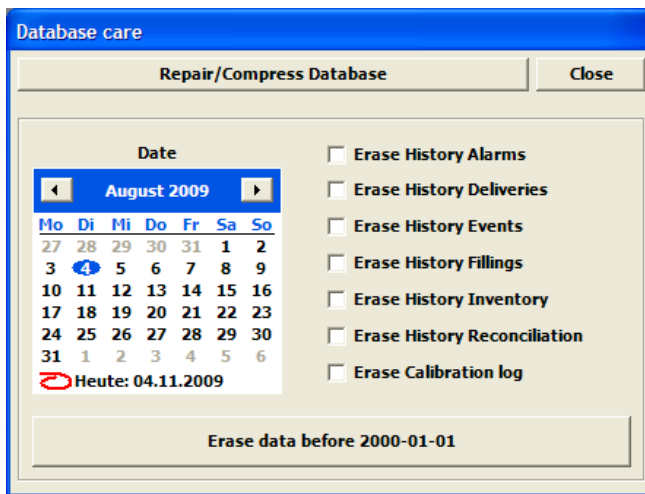


Figure 27: database care

Repair/Compress Database

To perform a repair or compression of the database, please click the button “Repair/Compress Database”. If the process has been completed, the following window appears:

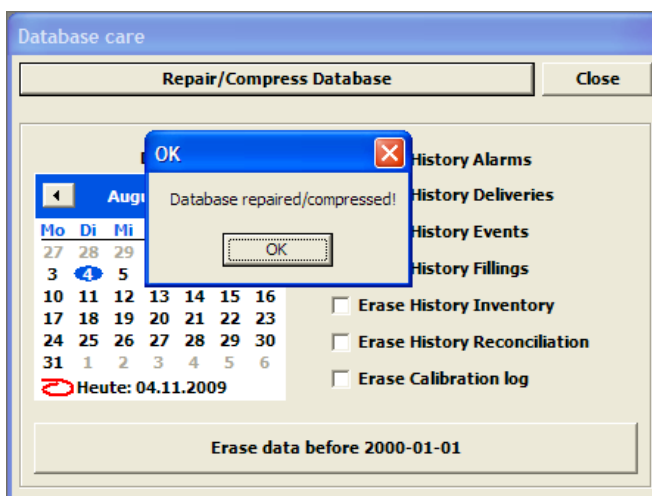


Figure 28: repair/compress database

The repair/compression of a database can take up to 5 minutes.

Erase data ...

The calendar can be used to set a date and to delete all the database entries before that date. When a date has been selected, it appears on the "Erase data before yyyy-mm-dd" button. Before clicking this button, please select the data to be deleted.

4.4 Main menu "Info"

Menu: Info → About

The following window is opened.

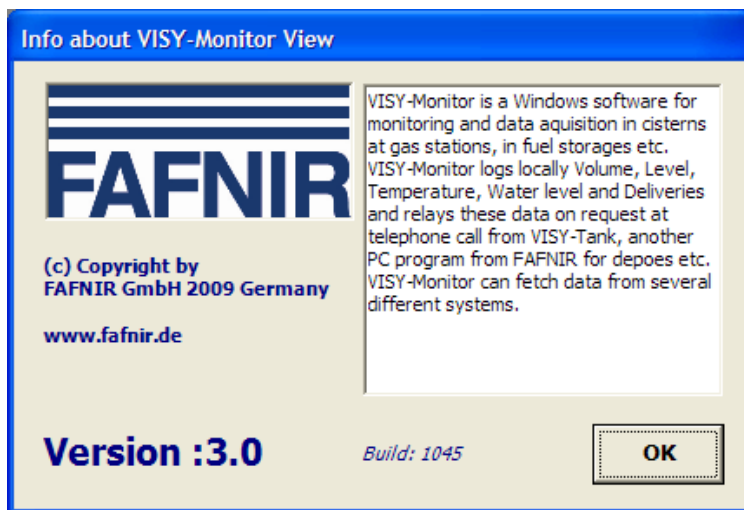


Figure 29: the info window

5 Registration

For the registration of the VISY-Monitor software, select the registration module in the following order of steps:

Menu: Start → Programs → FAFNIR → VISY-Monitor → VISY-Monitor Register

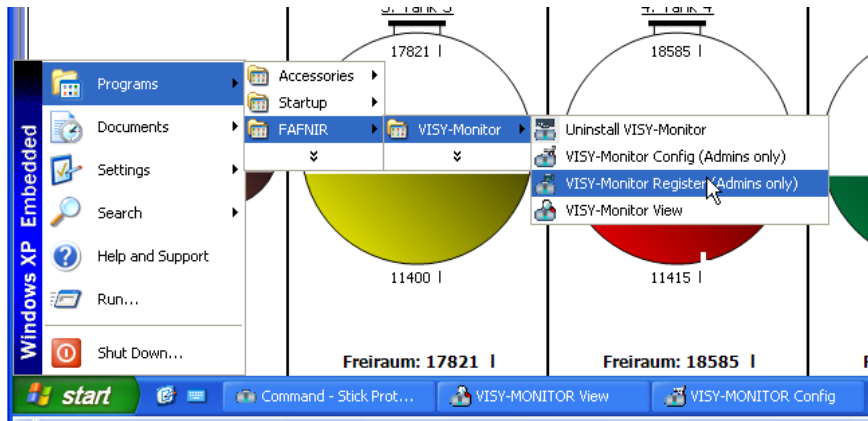


Figure 30: selecting the register module

After the selection, the following window opens if the VISY-Monitor software has not yet been registered:

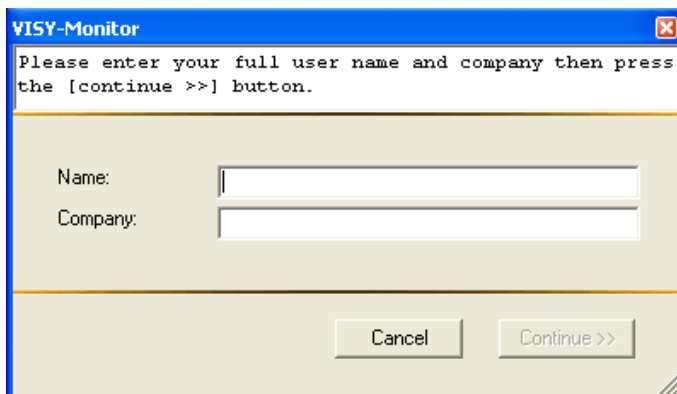


Figure 31: registration window

Name

Here, enter the station name.

Company

Here, enter the name of the oil company.

After you have filled in the two fields “Name” and “Company”, select “Continue>>”. The following window is then opened:

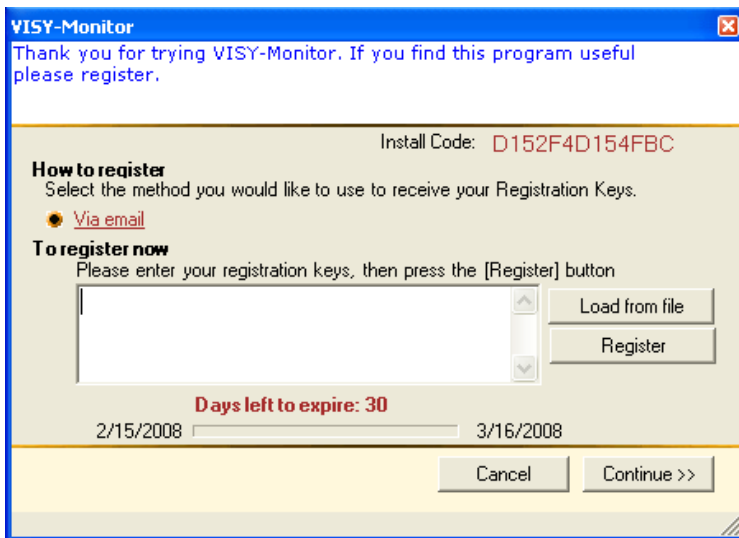


Figure 32: registration form

Proceed as follows to register the software:

Click on the “Via email” link in the registration form shown above. This starts the e-mail client into which all the required data is entered in order to register the VISY-Monitor software.

Send this e-mail to register@FAFNIR.de (default setting). After a short time, you will receive an e-mail with the registration key from Fafnir. Enter this registration key into the registration form and click “Register”. In the meantime, the software will run in the trial mode if you click “Continue >>”.

6 List of figures

| | |
|---|----|
| Figure 1: example view in VISY-Monitor View | 6 |
| Figure 2: register module | 7 |
| Figure 3: main menu in the VISY-Monitor Config module | 9 |
| Figure 4: language selection | 10 |
| Figure 5: drop-down list for communication configuration..... | 11 |
| Figure 6: configuration of VISY-Tank communication..... | 12 |
| Figure 7: configuration of point of sale communication | 13 |
| Figure 8: configuration of network communication | 14 |
| Figure 9: communication configuration for Com system | 15 |
| Figure 10: communication configuration for bon printer..... | 16 |
| Figure 11: system configuration..... | 17 |
| Figure 12: product configuration | 20 |
| Figure 13: object configuration | 21 |
| Figure 14: tank alarm configuration..... | 23 |
| Figure 15: interface ... (only in connection with ADAM probes) | 24 |
| Figure 16: tank table | 24 |
| Figure 17: export of the tank table | 26 |
| Figure 18: graph of original table | 27 |
| Figure 19: graph of calibrated tank table | 27 |
| Figure 20: error display graph..... | 28 |
| Figure 21: object group configuration | 29 |
| Figure 22: entering the object group configuration..... | 30 |
| Figure 23: group tank table after the calculation..... | 31 |
| Figure 24: calibrated tank table | 32 |
| Figure 25: selection of the dispenser points in the tank-pump mapping | 33 |
| Figure 26: pump-tank mapping | 34 |
| Figure 27: database care | 35 |
| Figure 28: repair/compress database..... | 35 |
| Figure 29: the info window | 36 |
| Figure 30: selecting the register module | 37 |
| Figure 31: registration window..... | 37 |
| Figure 32: registration form..... | 38 |

7 List of tables

| | |
|--|----|
| Table 1: temperature expansion coefficient | 21 |
| Table 2: assignment of product code..... | 33 |