

PC-Link Lite / PC-Link Extended

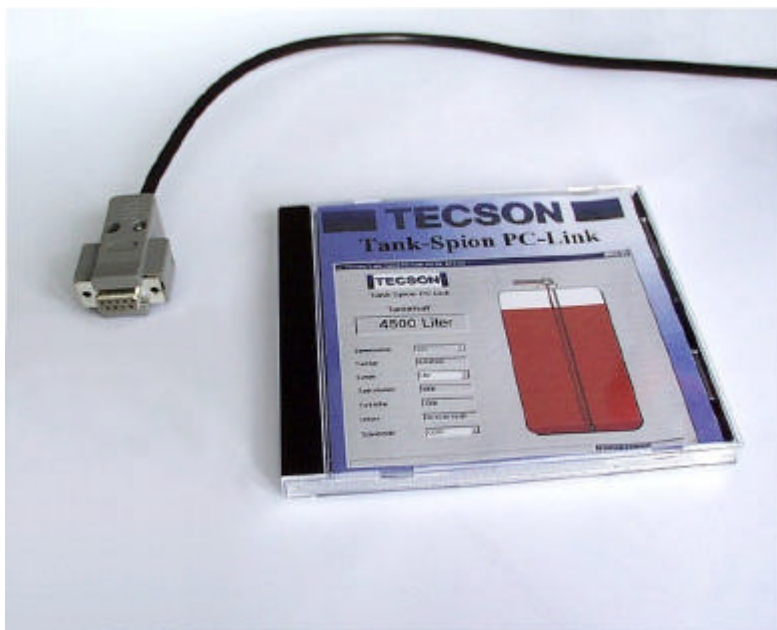
for network and for USB (serial)

With 'PC-Link' the Tecson display devices can be connected to a PC.
Such devices are:

- *Tank-Spion Digital LX-2* via USB
- *LX-NET* via network

You can get the software PC-Link V4.10 (or newer) as a copied CD or via internet download.

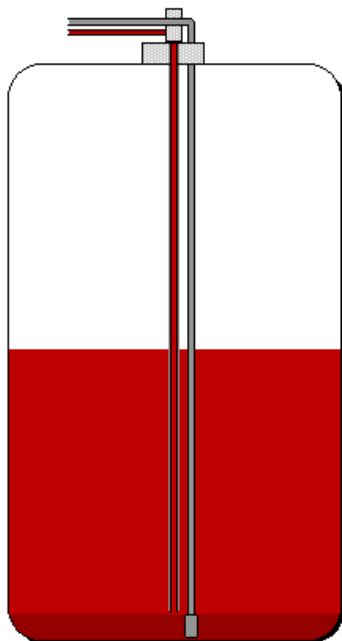
Before using the software it is necessary to buy and to enter a license key to get the programm functions activated.



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1. Product description :



2540 Liters = 51.0 %

- . Device connection via LAN network or serial (USB).
- . Tank content display on the PC .
- . Display and analysis functions:
Level curve, consumption table, liters logfile.
- . Data transfer to any Email address.

The product **PC-LINK** is an extension set for the electronic level measurement systems by Tecson.

The level data of one or several tanks will be transferred cyclically to an host PC.

The PC-Link program is running in the Windows task bar.

It logs the level data of the measuring devices. Information emails or alert Emails can be generated and sent automatically via SMTP.

For displaying and analysing the PC-Link main window has to be opened.

- **Device connection of LX-2** devices has to be done via a two-wire signal line to the serial **COM port** or to the **USB port**:

The LX-2 / LX-2-R devices have a PC-Link direct output. For PC connection a special adaptor (line signal converter) is needed. Line length and diameter are not relevant. Refer to 6.2 .

- **Device connection of LX-NET** device has to be done **via network** (Ethernet / LAN) .

The TECSON level display systems LX-NET / LX-Q-NET will transfer their level data directly via LAN to the target IP of the PC where PC-Link receives the data. Refer to 6.1 .

PC-Link Lite

or

PC-Link Extended

1. The software **PC-Link Lite** is limited to handle a maximum of 4 devices.
The PC-Client function is not available in the Lite version.
2. The software **PC-Link Extended** is able to handle a maximum of 56 devices.
This version supports the remote access via PC-Client installations on PCs in the network (Intranet).
Therefore on the host PC the installed program folder has to be released (file sharing). Normally it is the folder C:\Program files\Tecson\PC-Link
The Software extension **PC-Client** has to be installed by using setup.exe .

2. Requirements:

- Connection of tank display devices

(A) Via network:

Refer to 6.1 .

The reporting tank display devices LX-NET or LX-Q-NET are connected via LAN network with the PC-Link host-PC.

This host PC has to be configured via network router in the way that it gets a fixed IP address in the LAN. Otherwise in case of a dynamic IP address the device messages would not reach PC-Link in every case.

(B) To a serial PC port:

Refer to 6.2 .

The reporting tank display devices LX-2, LX-Q or compatible devices will be connected via a two-wire signal line.

- 20 MB free disc space

- Windows® operating system

Windows XP® / Windows Vista® 32-bit / Windows Vista® 64-bit

- Automatic sending of Emails, if wanted

If you want to use the automatic sending of Emails, e.g. for alert or critical level message, the PC must have a permanent internet connection and should not be switched off.

Set up the according SMTP parameter in menu item settings => Email function. Please ask your network administrator if necessary.

- Purchase and licensing

The PC-Link program is downloadable or can be copied.

For program using you have to buy a license key.

Follow the terms of our general business conditions.

3. Installation

3.1. Device connection via network:

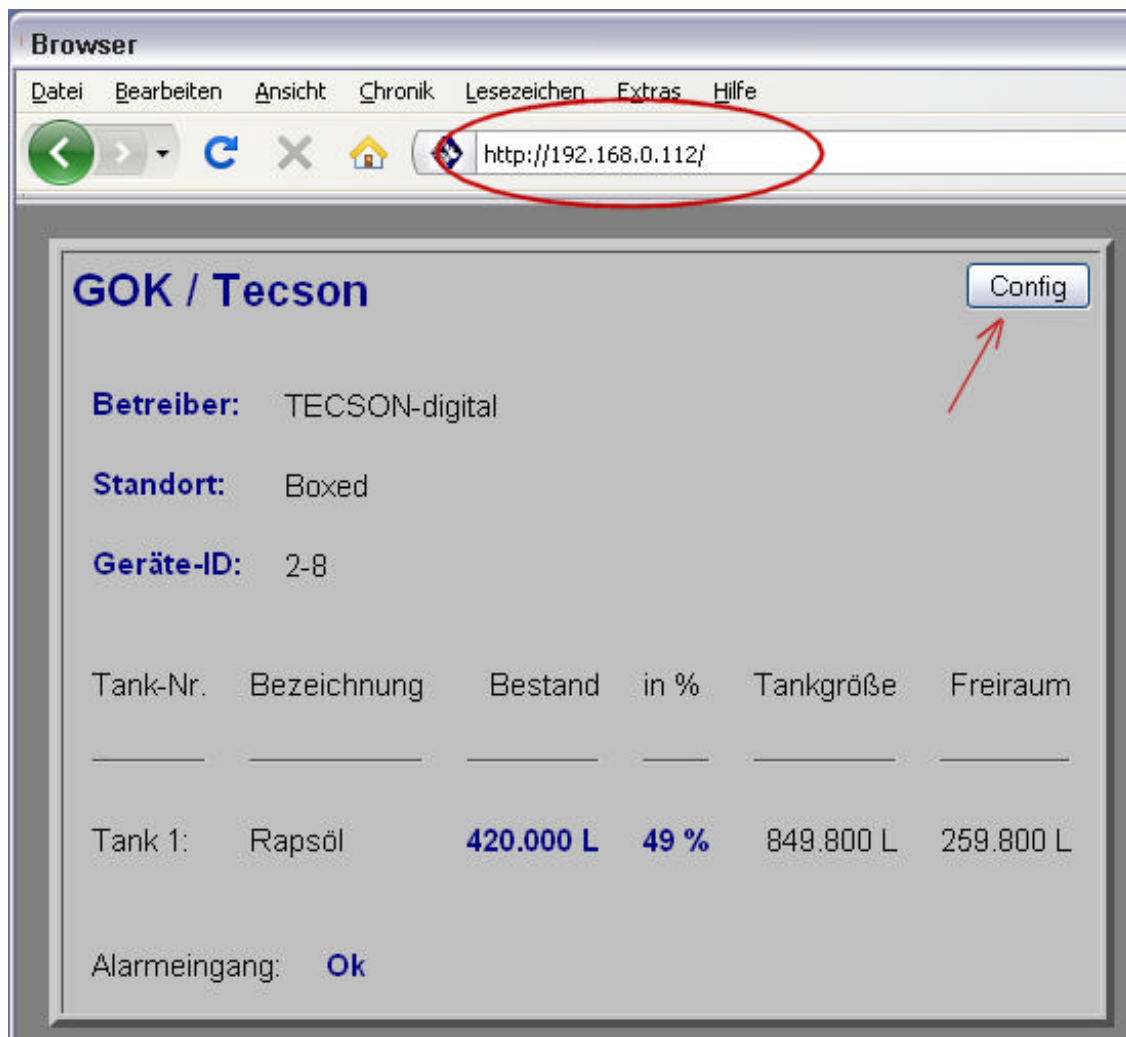
➤ => Refer to 6.1

➤ After the installation of the tank display devices and connecting them via LAN you have to configure the IP addresses:
(Refer to device documentation!)

For the PC-Link host PC set up a fixed LAN-IP address.
(Please ask your network administrator if necessary.)

In each device set up the message destination via device menu item "15. NET", so the device cyclically sends the current level data to the PC-Link host PC:

- Device menu "15. NET" => Stepp through the menu items up to „Dest.“.
For destination select "IP:Port" (Enter).
Set up the IP and the Port no. of PC-Link host PC, e.g.:
[192 . 168 . 0 . 33] [P:8000]
- The messaging schedule of the device can be set up via browser.
Therefore enter the device IP to the browser address bar.:



Click the 'Config' button and enter password (default password = tank)
to open the "Konfiguration" html page:

The screenshot shows a web interface for configuring a device. The 'Meldeparameter' section is highlighted. The 'Meldeziel' field is circled in red and contains the text 'Eingabe IP:Port oder Domain:Port' and '192.168.9.33 : 8000'. Other fields include 'Intervall' (30 min), 'Kritischer Grenzwert' (15 %), and 'Betankungserkennung' (10 %). A 'Konfiguration speichern' button is at the bottom.

There set up the messaging schedule.

In case of heating oil tanks a messaging schedule of 10 minutes is recommended. In case of service tanks an even shorter interval is recommended.

Click "Konfiguration speichern" to save your setup.

ALTERNATIVELY:

3.2. Connection via serial port / USB-port:

➤ => Refer to 6.2

- Use 2 x 0,4mm² or telephone line for connection to PC.
In case of interferences use shielded wire and connect it to earth potential (ground).
Wire length may be of 100 meters or more. Resistance does not matter.

For connection to PC use the adaption plug.

Refer to figure on the right.

Clamp 1 = (+) --> Serial Link-Output (1)

Clamp 2 = (-) --> Serial Link-Output (2)

If necessary use the USB adaptor.

In some cases an additional Windows USB driver must be installed.



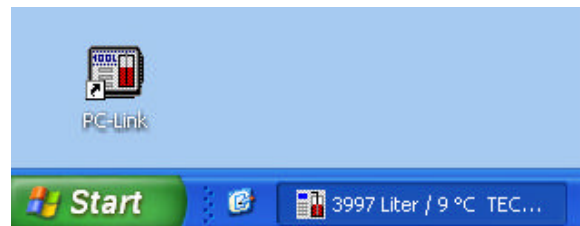
3.3. Installation of PC-Link software:

- For installing the PC-Link software open the archive file and run SETUP.EXE out of folder 'deutsch' or folder 'english'.
- Follow the instructions of the SETUP procedure.

3.4. Program start and licensing:

- The installation program saves a notice for the autostart of PC-LINK in the Windows®-system. PC-Link starts minimized as a symbol in the bottom tool bar. The user should not close the programme but only minimize it.

If you do not want this autostart-function, remove the PC-Link entry from autostart folder.



- License the PC-Link software as the next step. Without buying and entering a valid license key all PC-Link program functions are disabled. Open the menu item "Setting => Licensing" and unlock the program by following instructions.

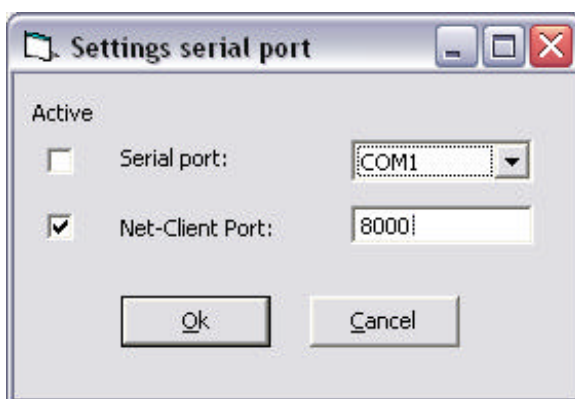
LITE or EXTENDED version ?

When ordering the license key you define the type of LITE or EXTENDED version key. For differences refer to 1. Product description.

➤ **Define kind of communication:**

In case of serial connection select the right COM port (refer to figure).

In case of network connection enter the Net-Client port. Refer to 3.1, e.g. port no. 8000



After that your level displaying device reports its serial no. It is displayed in the licensing dialog shown next (callable by menu Settings => Licensing).



➤ **Buying the license key**

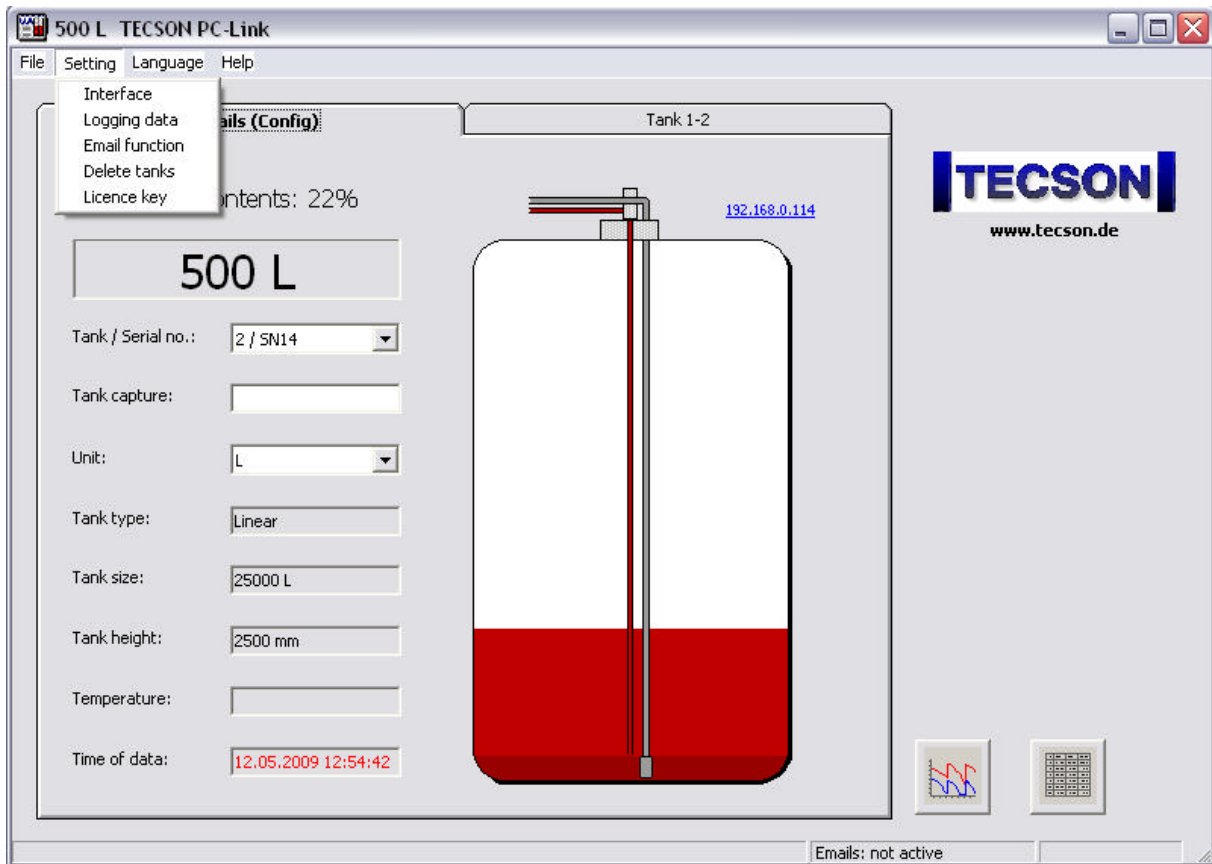
Click at the hyperlink www.tecson.de/lic-pclink to open that browser page.

Specify the serial no. to order the license key.
For example serial no. "9999". Displaying the serial no. information takes some time (up to 30 minutes) depending on the messaging schedule.

➤ **Respect the terms of our general business conditions for buying and using our software.**

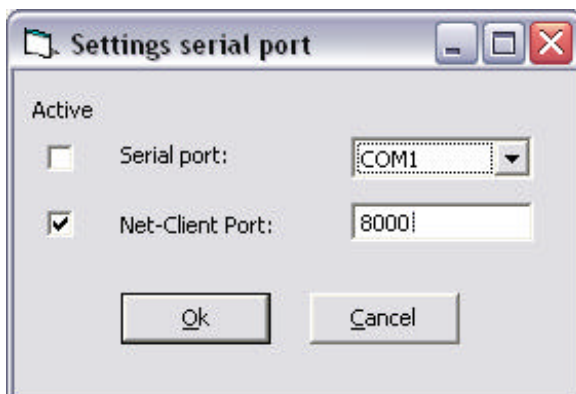
4. Program operation

4.1. Main window



- The main window updates the level values every few minutes.
Conditions:

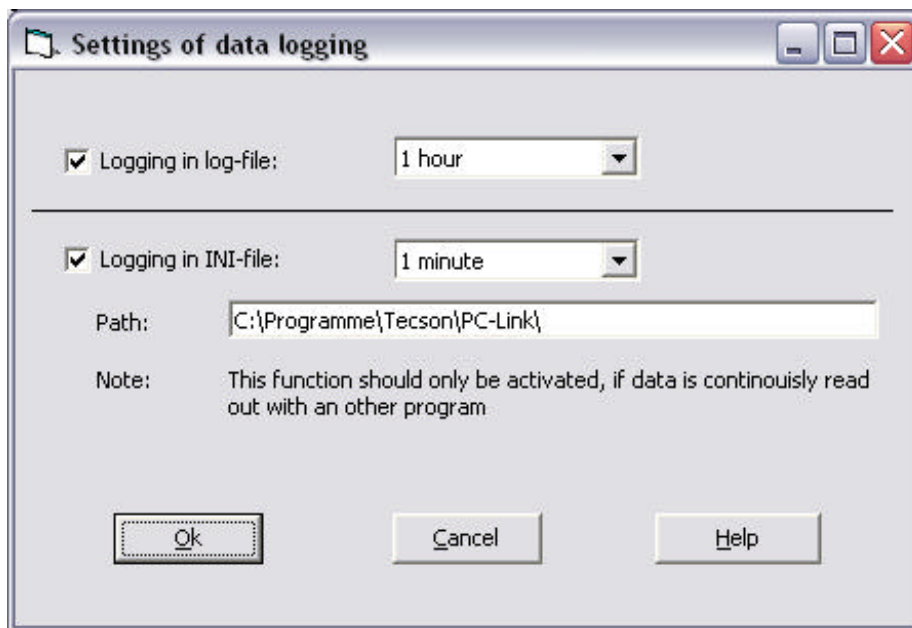
1. Proper setup of network parameters (refer to 3.1)
or proper COM port setup (refer to menu 'settings => interface').



2. Entering of a valid license key for LITE or EXTENDED version.

- For the one or more tanks set up the parameters once. Refer to figure above.
Use the selection box to switch to parameter setup for each tank.

4.2. Protocol function setting



➤ Protocol in logfile

If this function is activated PC-LINK writes the measurement data into a ASCII logfile. The file name is 'Tank nnn.csv' (importable for example with EXCEL). In case of several connected tank display devices the according number of files is created.

➤ Protocol in INI-file (also necessary for PC-Client)

This setting is important for the use of PC-Client on remote PCs.

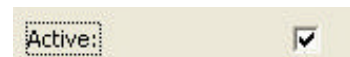
Only if this function is activated the up-to-date tank content data is written into the PCLINK.INI file as volume=nnnn for the tank(s).

PC-Client.exe on the network PCs reads the data from the host PC. Network accesibility has to be set for the folder, so release the folder for file sharing.

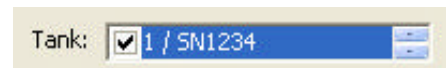
Refer to figure above.

4.3. Setting Email function

➤ The entire Email function can be temporarily de-activated with the function **Activation**.



➤ With the **activation list** individual tanks, for example a rain water tank can be excluded from the Email function.



➤ The Email recipients are to be entered into the fields **recipients** and **CC**.

➤ *Send via SMTP* is preset in the 'Sending method' selection box. This automatic Email function requires having permanent Internet access (flat rate). Please ask your system administrator if necessary.

Example for the field entries:

- Server: smtp.1und1.de (dependent on web-provider)
- Sender: [Peter Schulz] p-schulz@web.de (Sender for the PC-Link-E-mails)
- Login: Fctn. ON, user name and password (Email-Account)
- POP-Login: Fctn. OFF (/ On), Enter POP-Server (POP-access)

Alternative sending methods: **Sending without/with confirmation**

These indirect sending methods are only available with special configuration of the software. These methods require a functioning Email service of Mozilla or Outlook. However, typically safety inquiry messages of the operating system may occur so that fully automatic sending of Emails may not be possible.

- No entries are to be made in the 'subject' line. This line shows what the subject line in the Email will look like.

- **Cyclical and critical message threshold**

In the selection box top left (refer figure at 4.3) the cyclical message threshold for generating automatic Email messaging.
The selection box on bottom right defines the intervals for an Email to be repeated in case of critical level.

4.4. Sending a manual Email

- By clicking on button 'send manual Email' an Email will be sent now.
- The entered threshold values and intervals for the automatic sending remain irrelevant in this function.

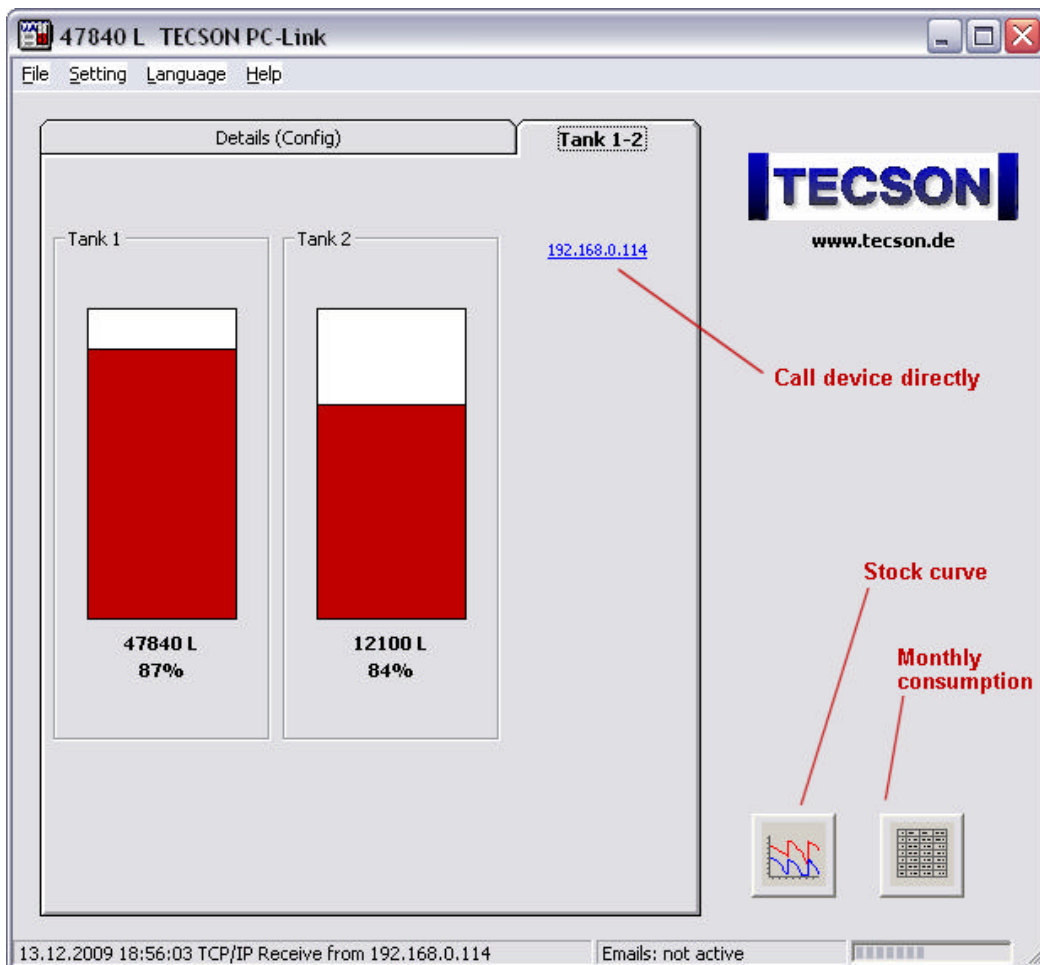


4.5. Lock the Email setting

- The entire settings for the Email function can be protected by a password.
- By clicking on button 'Lock/Unlock' a window appears with the prompt to enter a password.



4.6. Level displaying and analysis

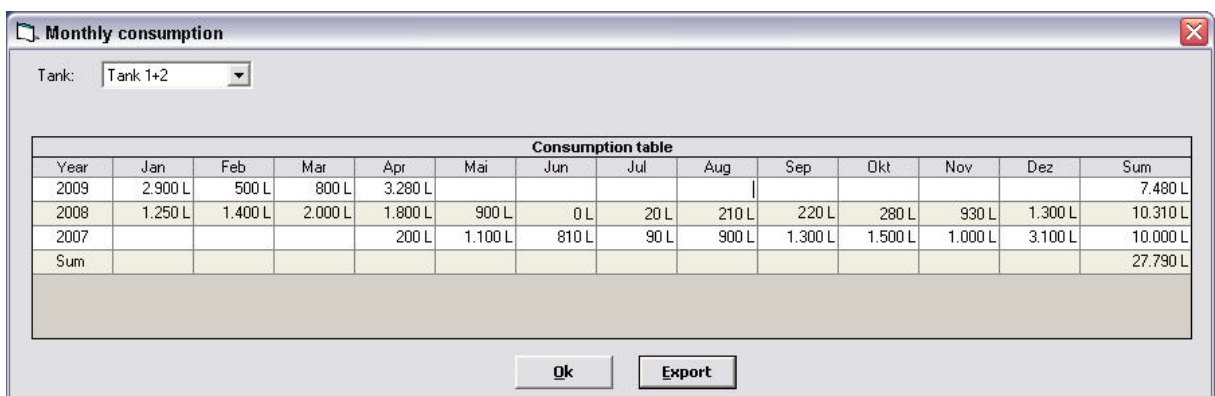


➤ **Level displaying of tanks**

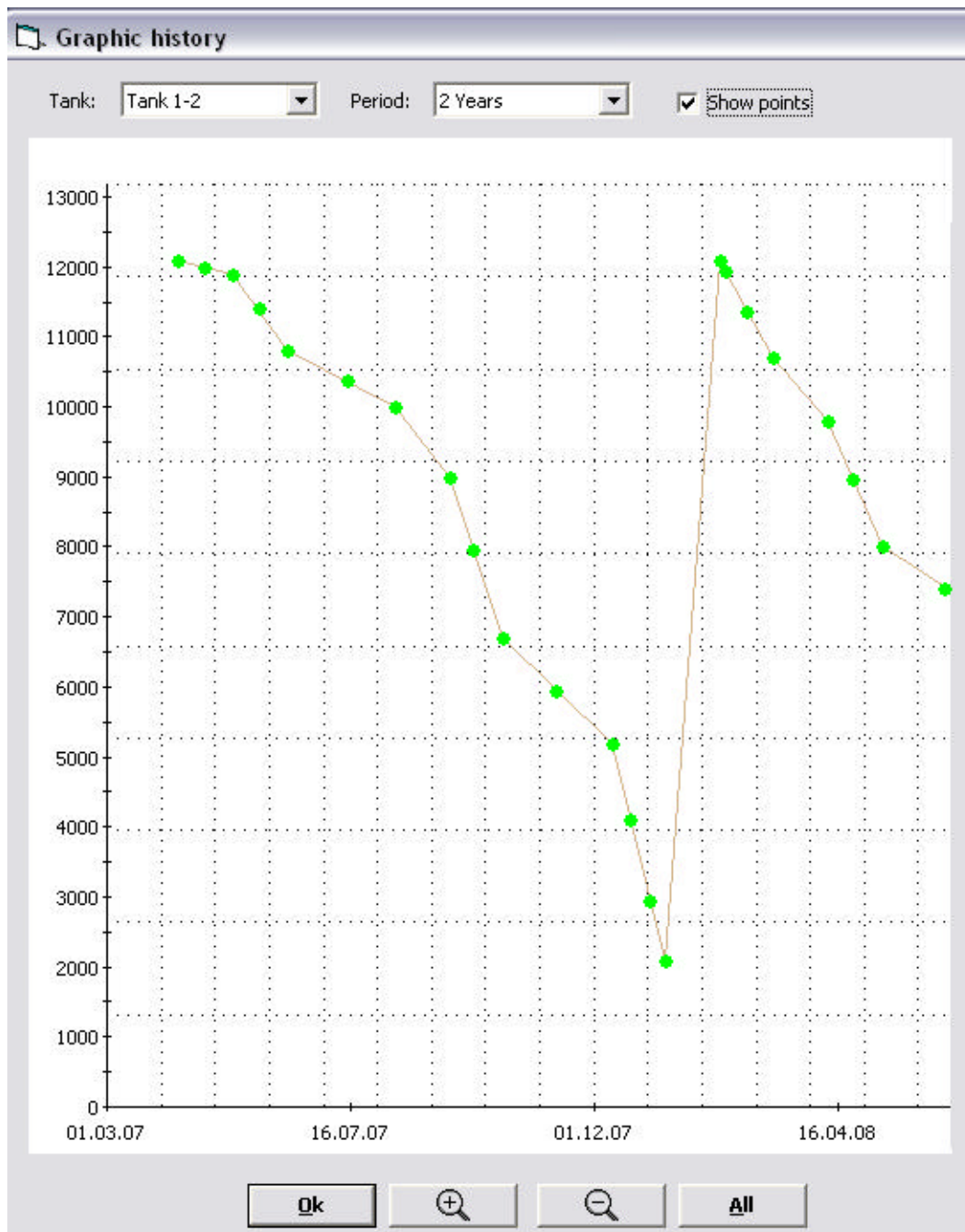
Use the tabs in the main window for displaying the reporting tanks.
To request the level displaying devices use the blue hyperlink (refer to figure).

➤ **Analysis of monthly consumption**

Refer to red hints in figure above.



Stock analysis



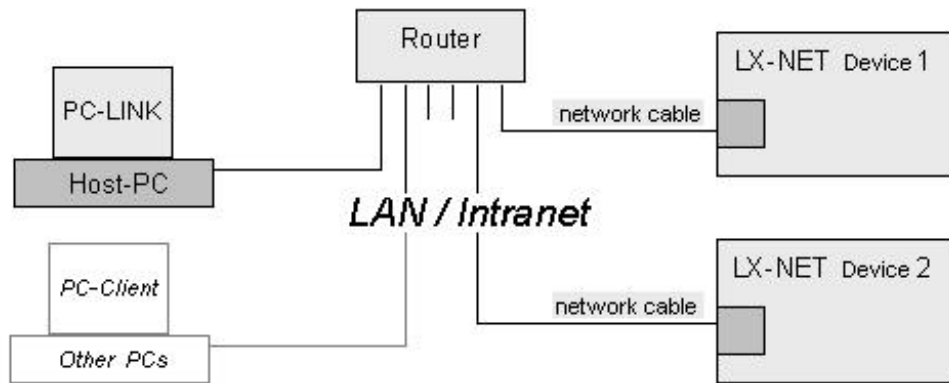
Refer to red hints in figure 4.6 .

5. Uninstalling

- For uninstalling of PC-Link software call system control panel and run 'uninstall application'.

6. Device connection

6.1. Network connection scheme



6.2. Serial connection scheme (COM / USB)

