

SensusBase software for configuration gateways
Manual BaseParaGate ACT21 version 3.2



ACT21 is the software to be used for configuring and diagnosing all the versions of SensusBase gateways with integrated functions, i.e., for

- setting admin and user passwords for WTX16.IP and WTX16.GSM gateways;
- saving and opening gateway configuration files;
- reading and saving gateway status files;
- the gateway restart function.


This document describes in detail the steps required to configure SensusBase gateways.

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1 System Prerequisites

To run the ACT21, the PC or laptop needs to be equipped with a free serial interface (COM interface).

Note  In order to install and use the ACT21, the user has to have administrator rights on the PC concerned.

2 Installation

2.1 Calling up the Installation Routine

Autostart The installation of the startup and readout software will usually start automatically when the CD-ROM is inserted (autostart activated).

Manual Start If the autostart function is not activated on the PC, the installation is to be started as follows:



Figure 1

- Click on "Start" and select "Execute."
- Enter the following expression into the input line: "X:ACT21*.exe." ("X" stands for the letter of the CD drive. The entry needs to be adapted accordingly.)
- Click on "OK."
- Following autostart or after the manual start of the installation routine, as described above, the InstallShield Wizard (installation assistant), a program that will copy the software onto the PC, will open.

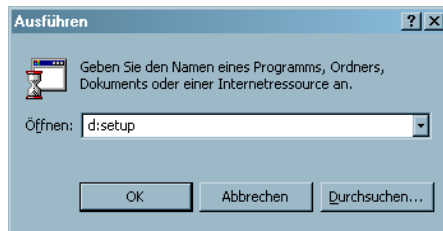


Figure 2

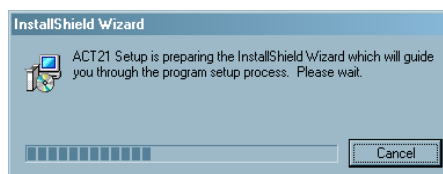


Figure 3

2.2 Installation Assistant

To ensure that the ACT21 will be successfully installed in the system, the instructions given by the installation assistant should be heeded. The suggestions made by the assistant need not be changed as a rule.

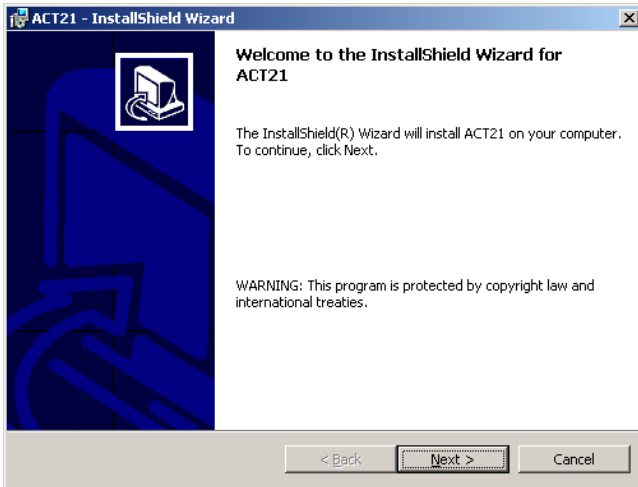


Figure 4

Start screen of the installation assistant

Clicking on the < Next > button will start the installation.

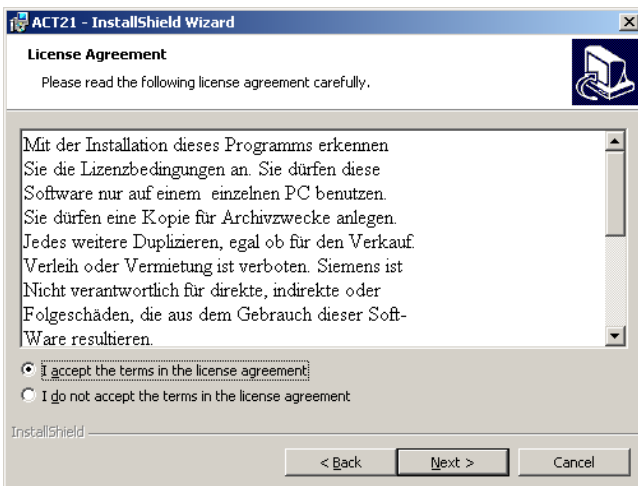


Figure 5

If the license agreement can be accepted, select "I accept the terms ..."

Clicking on the < Back > button will take you back to the previous window.

Clicking on the < Next > button will take you to the next window.

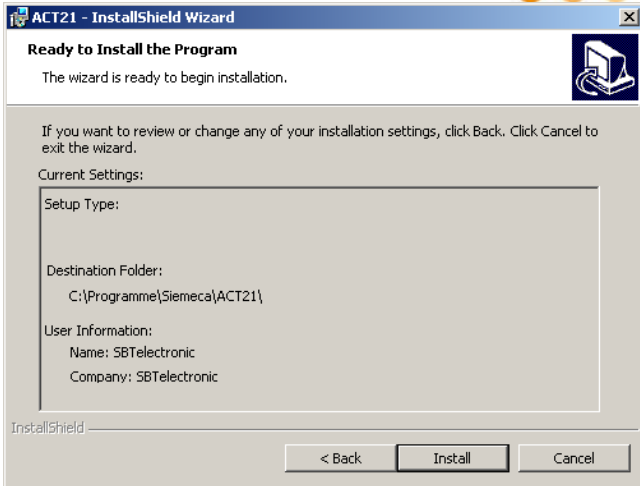


Figure 6

Before the actual installation, a brief installation overview is shown. Clicking the < Install > button will start the installation.

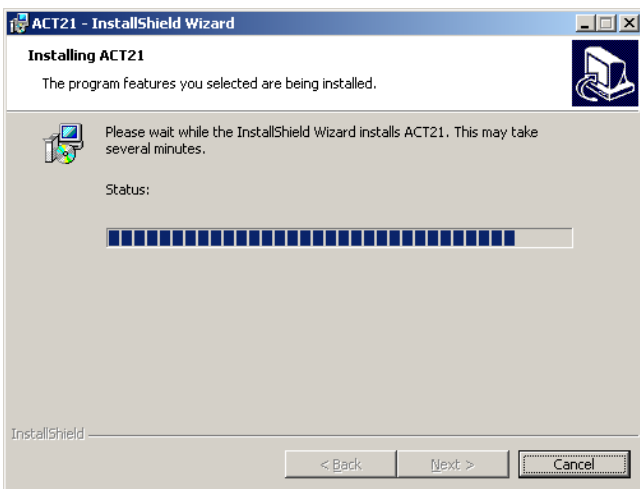


Figure 7

Progress display

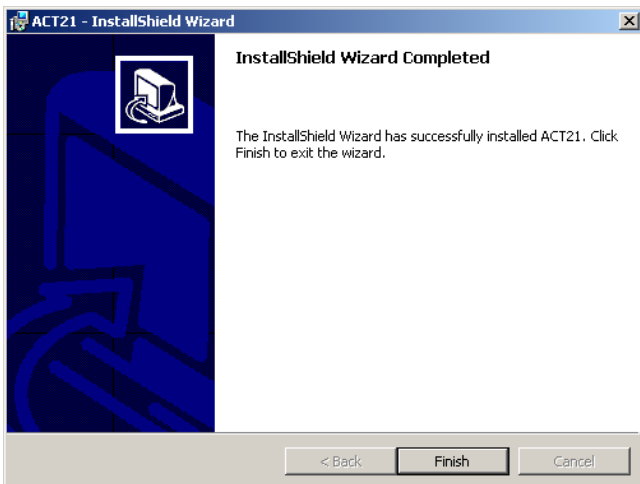



Figure 8

To finish the assistant, click on the < Finish > button.

3 Starting the ACT21

Together with the installation of the ACT21, a desktop link is set up, which simplifies the start process considerably. The program is now ready for use and can be called up by double clicking the  program symbol of the ACT21.EXE file.

3.1 Software Setup

Connection

To be able to configure the Siemens gateway, the PC must be connected to the gateway through a free COM interface and the RS-232 cable supplied.

If the PC does not offer such a serial interface, a USB RS-232 adapter is required.

Matching

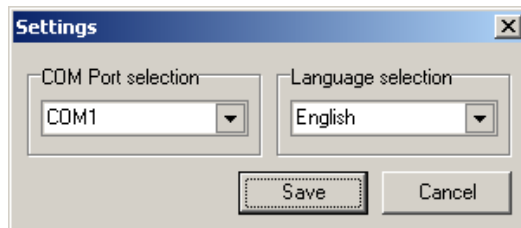


Figure 9

After the software has been started for the first time, the software needs to be told to which interface of the network node it is connected.

(Menu: "Extras – Settings")

3.2 User Interface

The menu bar is located under the blue program line. Clicking on a menu will open a menu window. Here you can find a range of menu functions to select from.

File Menu

Clear all fields	Ctrl+N
Open settings	Ctrl+O
Save settings	Ctrl+S
Read configuration	Ctrl+R
Write configuration	Ctrl+W
Login properties	
Exit	Ctrl+X

Set login password
Change administrator password
Change user password

Tools Menu

Gateway status	Ctrl+G
GSM received signal strength	Ctrl+Q
Restart the gateway	
Settings	

Clear all fields	Deletes all the inputs in the fields. To execute this function, the relevant dialog field must be clicked on.
Open settings	Opens stored configuration files.
Save settings	Saves all the current configurations.
Read configuration	Reads in gateway parameters.
Write configuration	Programs the gateway.
Login properties	
Set login password	Determines the administrator password which the ACT21 is to use for logging into the WTX16.IP or WTX16.GSM gateway.
Change administrator password	Changes the administrator password of the gateway.
Change user password	Changes the user password of the gateway.
Exit	Ends the ACT21.
Gateway status	Displays the current gateway status.
GSM received signal strength	Indicates the strength of the GSM signal.
Restart the gateway	Restarts the gateway.
Settings	Opens the settings window to select the COM interface and the language.

Tool Bar

Frequently used functions are accessible via the tool bar.

Clear all fields	Request gateway status
Open settings	ACT21 settings
Save settings	

4 Gateway Settings

For any communication to be possible between the gateway and the PC, the gateway settings have to be determined. For this purpose, each type of WTX16 is accorded a dialog window, which can be activated by clicking on the corresponding button.

Note



This dialog should only be used by individuals who are familiar with the terminology and services in question. If wrong information is entered, the plant concerned can no longer be reached.

Call Number Format If the gateway uses the GSM network for data transmission, the following conventions should be taken into account:

International Dialing Codes	To be quoted without a leading "+." Example: For Germany: 493012345
Area Codes	To be quoted without a leading "0." Example: For Berlin: 3012345

4.1 Configuration of WTX16.IP

Starting with firmware version 9.0, WTX16.IP gateways support DHCP, SSH and SFTP.

If those functions are to be used, the ACT21 needs to be updated to version 3.1 and higher.

The following fields must be completed to configure the WTX16.IP:

Figure 10

Gateway options	Gateway name	Freely selectable gateway name
	IP Address	The IP address of the gateway is assigned by the network administrator.
Advanced	<input type="checkbox"/> Network settings	All the network settings required will be generated automatically.
	<input checked="" type="checkbox"/> Network settings	Network settings are determined manually. The "Network settings" group fields are accessible for editing.
	<input checked="" type="checkbox"/> Secure connection	Secure connection is activated.
	<input checked="" type="checkbox"/> DHCP	Use of a DynDNS service. "DynDNS settings" group fields are accessible.

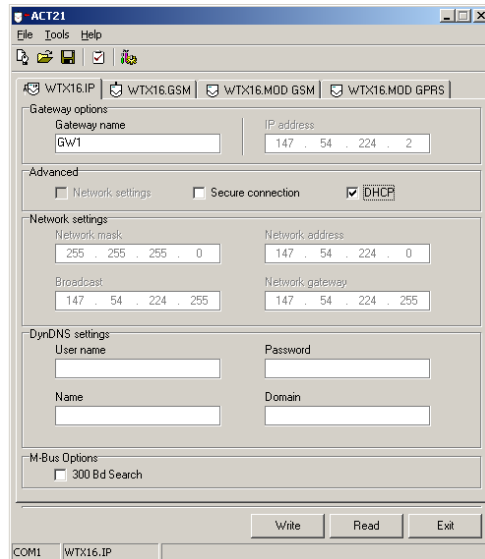



Figure 11

Network settings	NW mask NW address Broadcast NW gateway	}	Are determined by the network administrator and/or cable network operator.
DynDNS and DHCP	User name Password Name Domain		The user name agreed with the dynDNS service provider User password Gateway host name Name of domain (e.g., dyndns.com)
M-Bus Option	<input type="checkbox"/> 300-Bd Search <input checked="" type="checkbox"/> 300-Bd Search		Preset M-bus is accessed at 2,400 bauds. M-bus is accessed at 2,400 bauds and additionally at 300 bauds.

Note  The settings can subsequently be transmitted to the gateway by clicking on the < Write > button or via the "File – Write" menu. (For further information, please refer to Section 5.)

4.2 Configuration of WTX16.GSM

To be able to read out data from the WTX16.GSM gateway using software ACS26, an incoming connection needs to be set up on the PC. Please consult the ACS26 User Instructions for a detailed description of how to set up an incoming connection.


The screenshot shows the ACT21 configuration window with the following fields and values:

- Gateway name: GW2
- Gateway GSM number: 01234567
- Callback phone numbers:
 - 01987456321
 - 02987456321
 - 03987456321
 - 04987456321
 -
 -
- SIM card option: PIN (masked with asterisks)
- SMS option: Number for SMS messages: 01456877
- Login options: PC User name: ACT21, PC Password: ACT21
- M-Bus Options: 300 Bd Search

Buttons at the bottom: Write, Read, Exit. Status bar: COM1 | WTX16.GSM

Figure 12

Gateway name	Must not be longer than 16 characters.
Gateway GSM number	Gateway SIM card number
Callback phone numbers	Numbers of the devices to which the gateway is allowed to respond with a return call.
PIN	Four-digit PIN of the SIM card
Number for SMS messages	Telephone number defined to receive the gateway status by SMS
PC User name	User name required for making incoming dial-in connections
PC Password	Password required for making incoming dial-in connections
M-Bus Options	
<input type="checkbox"/> 300-Bd Search	Preset M-bus is accessed at 2,400 bauds.
<input checked="" type="checkbox"/> 300-Bd Search	M-bus is accessed at 2,400 bauds and additionally at 300 bauds.

Note  The settings can subsequently be transmitted to the gateway by clicking on the < Write > button or via the "File – Write" menu. (For further information, please refer to Section 5.)

4.3 Configuration of WTX16.MOD-1 GSM

The WTX16.MOD-1 GSM gateway provides functions that are similar to those of the WTX16.GSM gateway. Unlike the WTX16.GSM, it offers users no possibility to send SMS's and to identify themselves by a user name and a password.

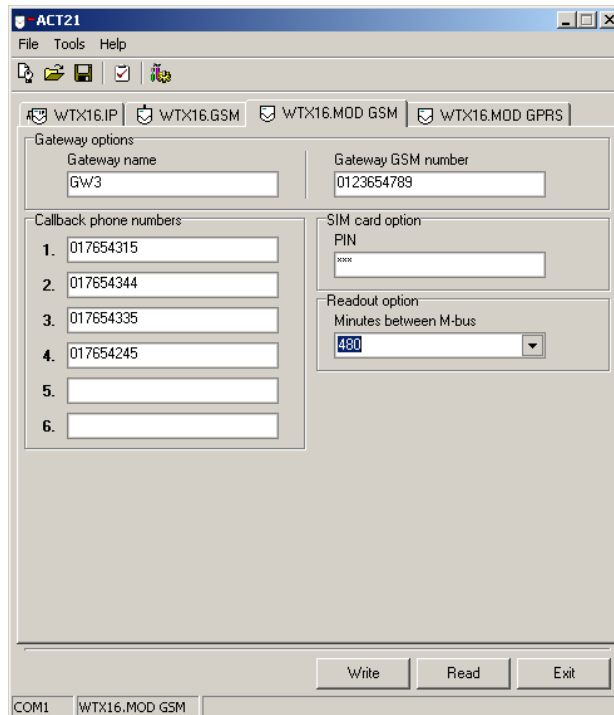



Figure 13

Gateway name	Must not be longer than 8 characters.
Gateway GSM number	Phone number of the gateway SIM card
Callback phone numbers	Numbers of the devices to which the gateway is allowed to respond with a return call.
PIN	Four-digit PIN of the SIM card

Note  The settings can subsequently be transmitted to the gateway by clicking on the < Write > button or via the "File – Write" menu. (For further information, please refer to Section 5.)

4.4 Configuration of WTX16.MOD-1 GPRS

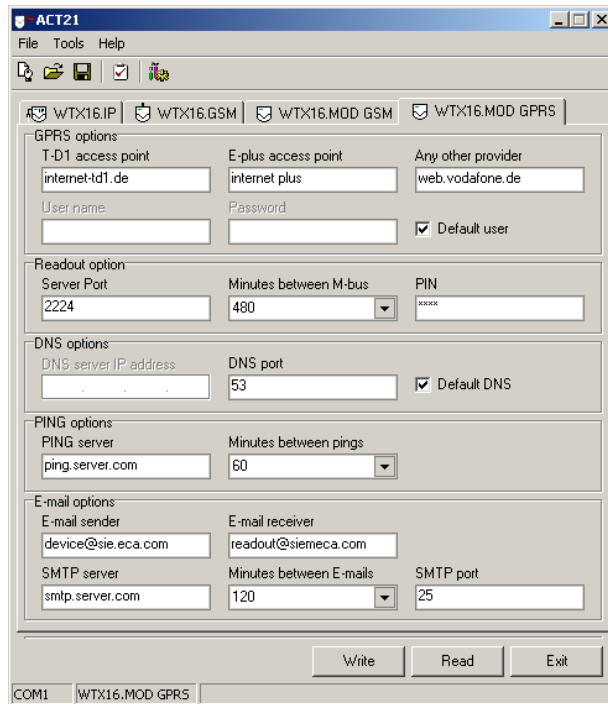


Figure 14

Access point

The gateway selects an access point matching the provider:

- T-D1 access point,
- E-plus access point,
- other providers.

The name of the access point must not contain more than 32 characters.

User name

Maximum length: 16 characters

Password

Maximum length: 16 characters

Note



If no user name and password authentication is required, the "Default user" box should be ticked.

Server port

Port number for the TCP connection to the gateway

Minutes between

Data update interval

M-bus

PIN

Four-digit PIN of the SIM card

DNS server IP address	If the standard DNS server is not to be used, another IP address can be specified. In order to determine an own DNS server, the Default DNS must be unticked in the relevant check box.
DNS port	Port number for access to the DNS service
PING server	Ping server address. Maximum length: 64 characters. An IP address or a server name can be entered. If the IP address is entered wrongly, the entry will be treated as a server name.
Minutes between pings	Time interval between two pings for the GPRS connection check
E-mail sender	E-mail address of the gateway. Maximum length: 32 characters.
E-mail receiver	E-mail address of the system for receiving the GPRS gateway status e-mail. Maximum length: 32 characters.
SMTP server	Server for outgoing e-mails. Both an IP or a server name can be entered. Maximum length: 64 characters. If the IP address is entered wrongly, the entry will be treated as a server name.
Minutes between E-mails	Time interval between two e-mails
SMTP port	Port number of the server for outgoing e-mails

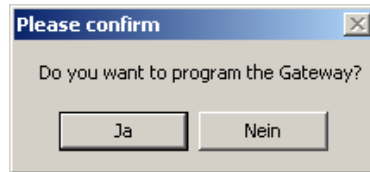
Note

The settings can subsequently be transmitted to the gateway by clicking on the < Write > button or via the "File – Write configuration" menu. (For further information, please refer to Section 5.)

5 Transmission of Configuration to Gateway

If all the required setting fields have been completed, the settings can be transferred to the gateway. To effect the transfer, click on the < Write > button or use the "File – Write configuration" menu.

Confirmation



For the write process to be executed, confirmation is required.

Figure 15

Progress display

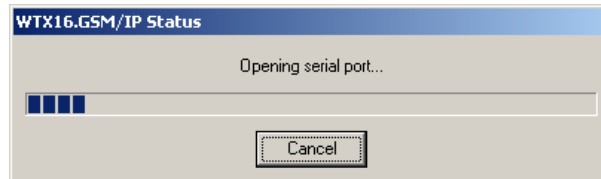


Figure 16

If the write process has been successful, the following dialog box will appear:

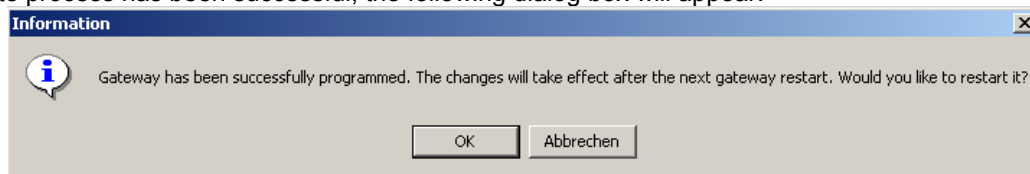


Figure 17

Note



All the settings have been saved in the gateway. They will, however, not become effective until after the gateway has been restarted.

Error messages

If the write process has been flawed or impossible, an error message will be displayed.



Figure 18

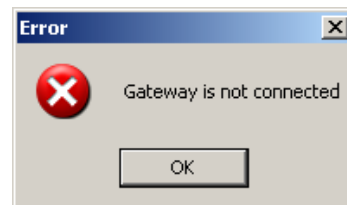


Figure 19

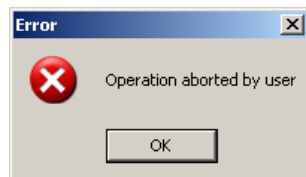


Figure 20

6 Reading of Gateway Settings

The gateway settings can be read by clicking on the "Read" button or by selecting the "File → Read configuration" menu item. Reading progress is displayed in a separate window.

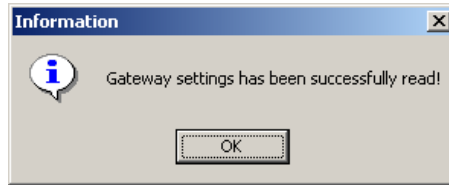


Figure 21

In a message window, the user is informed of the outcome of the reading process. Any error occurring is indicated in the form of an error message. Also, a message will appear if the reading has been successful.

7 Security Settings

Two user accounts are set up on WTX16.IP and WTX16.GSM gateways, Version 9.0 and higher:

Administrator

is entitled to change gateway settings and to call up data and the status file from the gateway. The administrator password is "AnNa97" when the gateways are delivered to the users.

The ACT21 logs into the gateway as administrator.

User

is entitled to call up data from the gateway and to view the status file. The user password is "UsEr" when the gateways are delivered to the users. The ACT26 readout software logs into the gateway as user.

Only the ACT21, Version 3.1 and higher, can configure WTX16.IP and WTX16.GSM gateways.

7.1 Login

The password last used for logging into the gateway is stored in the ACT21 software, so that the password need not be entered manually.

If the ACT21 is to log into a gateway whose administrator password does not match the password entry stored, the password is to be overwritten through the menu "File – Login properties – Set login password."

Set Login Password

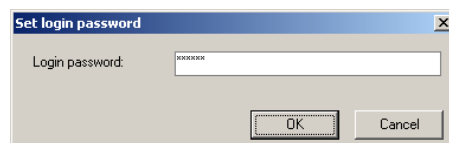


Figure 22

Enter new login password.
Confirm change by clicking on < OK > button.

7.2 Changing of Password

In order to prevent any unauthorized access to SensusBase systems, the passwords set by the manufacturer should be changed immediately after installation.

Change Administrator Password

The administrator password of the gateway can be changed through the "File – Login properties – Change admin password" menu.

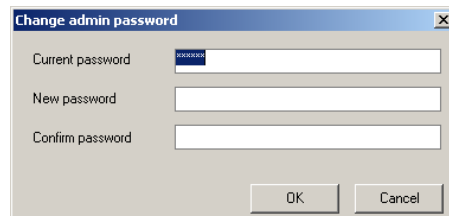


Figure 23

- Enter current administrator password.
- Enter new password.
- Confirm new password.
- Confirm change by clicking on < OK > button.

Change User Password

The user password of the gateway can be changed through the "File – Login properties – Change user password" menu.

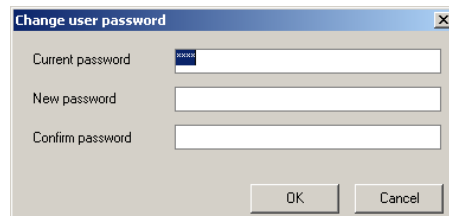


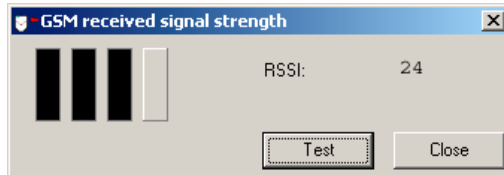
Figure 24

- Enter current user password.
- Enter new password.
- Confirm new password.
- Confirm change by clicking on < OK > button.

8 Service Functions

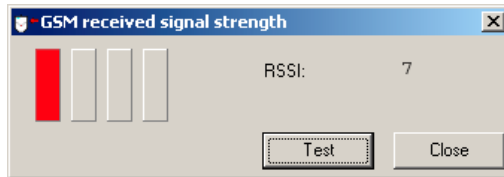
8.1 Signal Strength

WTX16.MOD-1 gateways, both in GSM and GPRS parameterization, and WTX16.GSM gateways allow you to check the signal strength. The relevant information can be called up through the "Extras – GSM received signal strength" menu.



Black bars in the diagram indicate good signal quality.

Figure 25

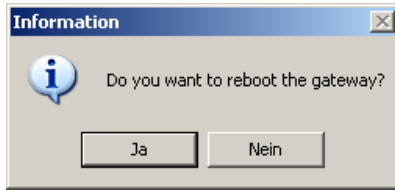


Red bars in the diagram indicate insufficient signal quality.

Figure 26

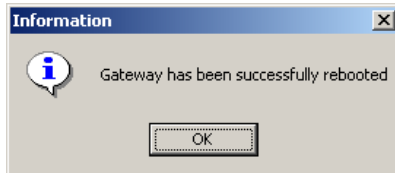
8.2 Gateway Restart

The gateway can be restarted through the "Extras – Restart" menu.




For this function to be executed, an acknowledgement is required. (Figure 27)

Figure 27



A successful restart is acknowledged through an information window. (Figure 28)

Figure 28

Note  During the booting operation, the LED of the gateway will blink at short intervals. In this status, the gateway cannot be read out and programmed.

The gateway will be ready again for operation after about six minutes. The LED will then blink at long intervals.

Error Messages An error message will appear if the restart was faulty.

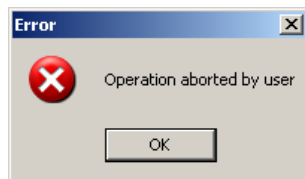


Figure 29

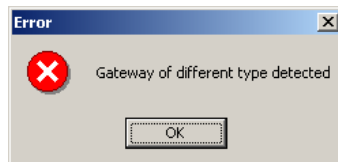


Figure 30



Figure 31

8.3 Gateway Status Information

The ACT21 3.2 is in a position to show gateway status information. This function is supported by WTX16.MOD-1, WTX16.IP and/or WTX16.GSM gateways featuring firmware version 9.0 and higher.

Gateway status information can be called up through the "Extras – Gateway status" menu.

Note



Whenever configurations are changed without restarting the gateway, the new configuration settings will not yet be known to the gateway. New configuration settings will not become effective until after a gateway restart.

Status Window
for WTX16.IP and WTX16.GSM Gateways

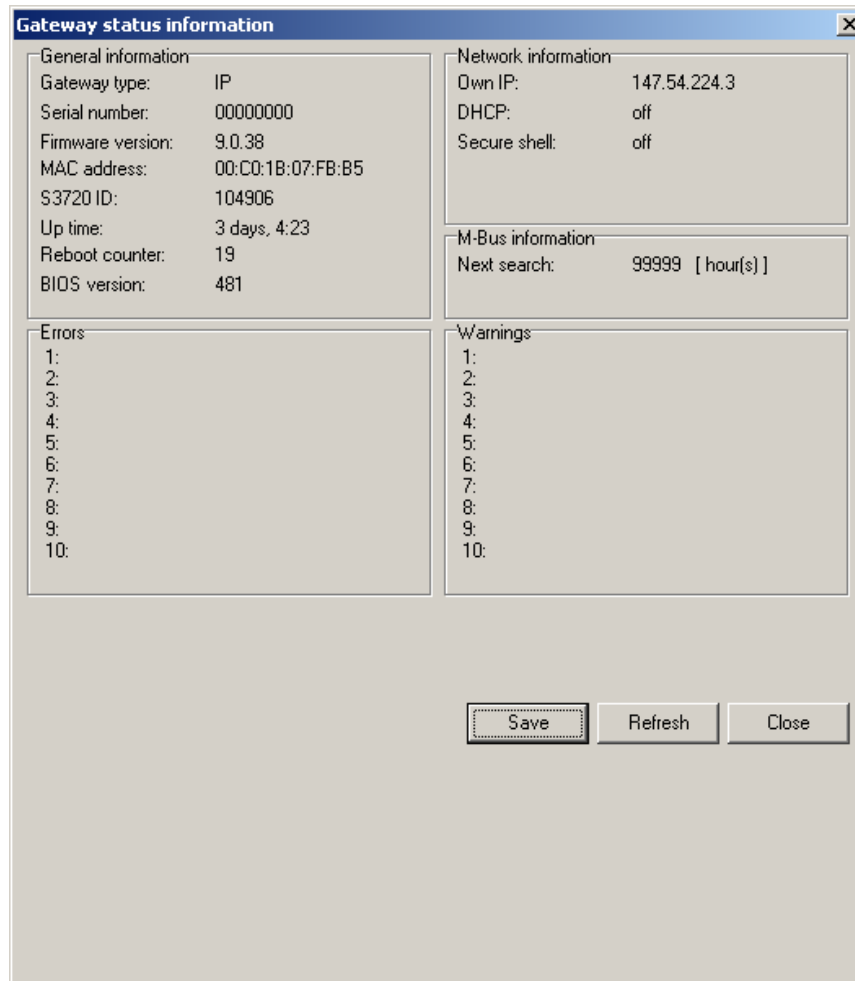


Figure 32

Note



An MAC address will be displayed for IP type gateways only. If the gateway employed is a GSM type gateway, zeros (00:00:00:00:00:00) will be displayed in the MAC address field.

WTX16.MOD-1 Gateways

Compared with WTX16.IP and WTX16.GSM gateways, the WTX16.MOD-1 gateway status information contains a number of additional fields.

General information		Network information	
Gateway type:	GSM	Own IP:	0.0.0.0
Serial number:	10810388	DNS:	0.0.0.0
Firmware version:	21	SMTP server:	0.0.0.0
Gateway time:	31.5.2007 16:17:00	Ping server:	0.0.0.0
Gateway errors:	No errors	M-Bus information	
		Auto Read M-Bus:	[0x00] - AUTO_IDLE
		M-Bus status:	[0x17] - REQOK
GPRS status			
Gateway status:	[0x00] - AUTOGPRS_IDLE		
E-Mail status:	[0x00] - Stateldle		
E-Mail retries:	0	Ping retries:	0
Elapsed e-mail min.:	402	Elapsed ping min.:	x x x
TCP/IP state machine			
Socket status:	[0x00] -		
TCP/IP status:	[0x00] - CLOSED		
TCP/IP flags:	[0x00] - NO FLAGS		
TCP/IP app. status:	[0x00] - SvStListening		
PPP status:	[0x00] -		
PPP frame size:	0 bytes		

Figure 33

Note



The "Network information," "GPRS State" and "TCP/IP" information blocks are only of relevance to GPRS gateways.

This data sheet contains only general descriptions and/or general performance characteristics, which, in a given case, may not always apply in the manner presented or may change as products evolve. Desired performance characteristics shall only be binding if expressly agreed upon the signing of the relevant contract.

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Subject to change



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