

Plant Operating Software

Operating, service and alarm software

CD V5.0 or higher

ACS741

**PC software for the remote operation, monitoring and commissioning of heating, ventilation and district heating plant and remote readout of consumption data.
Windows version**

Use

- Remote management with the OZW775 and OZW771 central communication units:
 - Remote operation and monitoring of Synco™ plants whose devices (primary controller, single room controllers, room units) are connected via Konnex bus
- Remote management with the OCI600 and OCI611 central communication units:
 - Remote operation and monitoring of heating plant whose devices (controllers, pulse adapters, temperature sensors/adapters, digital input modules and relay modules) are connected via LPB (Local Process Bus)
- Remote management with the M-bus central units OZW10 and OZW111:
 - Remote operation and monitoring of M-bus-compatible devices (controllers and meters) in community and district heat substations
 - Acquisition of consumption data of M-bus-compatible meters for consumption cost billing
 - Acquisition of consumption data from radio-based consumption meters of the Siemeca™ AMR system, transmitted to the M-bus central unit OZW10 via the M-bus interface of the WTX16 or WTT16 network node
- Diagnosis and commissioning of LPB controllers with OCI69 and OCI700 service interfaces
- Diagnosis and commissioning of KNX controllers with OCI700 service interface
- Reception of alarms in plants with OZW30 and OCI55

Functions

Operating software

The operating software provides a number of applications, depending on the selected software package.

<i>Application</i>	<i>Description</i>
Plant Diagram user-defined	Visualization and remote operation of data points with graphic display of plant. Graph, data points and interconnections are defined by the user
Popcard	Visualization and remote operation of all transmitted data points of the connected devices
• Standard	Predefined pages and data points of each device
• User-defined	Pages and data points as defined by the user
File Transfer	Transmission and storage of files of the central units and memory cards
Parameter Settings	Reading and editing the setting parameters of a device in tabular form
Plant Navigation	Plant view in the form of a tree structure. The view corresponds to the addressing of the devices
Connections	Type of connections
• Direct	With standard null modem cable or standard USB cable (connector type A to B)
• Modem	Via telephone modems

Alarm software

The alarm software is an overriding program included in all software packages.

<i>Application</i>	<i>Description</i>
Alarm	Alarms from the central unit or the plant are received, stored, displayed and output on a printer
System Report	Information from the central unit or the plant is received, stored, displayed and output on a printer
Connections	Type of connection
• Direct	With standard null modem cable or standard USB cable (connector type A to B)
• Modem	Via telephone modems

Service software

The service software has a fixed functionality and is included in all software packages.

<i>Application</i>	<i>Description</i>
Popcard	Visualization and remote operation of all transmitted data points of the connected devices
• Standard	Predefined pages and data points of each device
• User-defined	Pages and data points as defined by the user
Online Trend	Acquisition and presentation of the dynamic behavior of selected data points of the plant with connection to the plant
Parameter Settings	Reading and editing the setting parameters of a device in tabular form
Commissioning Report	Logging the setting parameters of individual devices, device groups or of the entire plant
Plant Navigation	Plant view in the form of a tree structure. The makeup of the tree structure corresponds to the addressing of the devices
Connection	Directly with standard null modem cable or standard USB cable (connector type A to B)

Functions with central units

The functions are dependent on the type of central unit or the type of service interface.

Function	Type of central unit / service interface									
	OZW775	OZW771	OCI600	OCI611	OZW10 ³⁾	OZW111	OZW30	OCI55	OCI69	OCI700
Plant Diagram	●	●	●	●	●	●			●	●
Popcard	●	●	●	●	●	●			●	●
Online Trend	●	●	●	●	●	●			●	●
File Transfer	●		●		●					
Parameter Settings	●	●	●	●	●	●			●	●
Commissioning Report	●	●	●	●	●	●			●	●
Plant Navigation	●	●	●	●	●	●			●	●
Alarm	●	●	●	●	●	●	●	●		
System Report	●	●	●	●	●	●	●	●		
Connections										
• Direct	● 2)	● 1)	● 1)	● 1)	● 1)	● 1)	● 1)	● 1)	● 1)	● 2)
• Modem	●	●	●	●	●	●	●	●		

1) With standard null modem cable

2) With standard USB cable (connector type A to B)

3) Version V3.0 or higher

Equipment combinations

Number of plants

With all programs, the number of plants are unlimited.

Number of devices per plant

With the operating software, the number of devices per plant are limited. By contrast, with the alarm software and the service software, the number of devices are unlimited. To limit the number of devices, a credit is available with ACS741. Every device connected to the plant charges that credit with a device-specific value. The number of devices that can be operated are limited by the credit amount.

- The credit with ACS741 is **1,300**
- The device-specific credits are as follows:

Type of product	Device-specific credit
OCI600, OCI611, OZW10, OZW111, OZW771, OZW775	10
OCI69, OCI700, WTX16, WTT16, KNX line coupler	0
Synco™ RMU7..., RMH7..., RMB7..., RMK7..., RMS7...	8
Synco™ RLU2..., SEZ2...	8
Synco™ RXB...*	2
Synco™ QAW740	1
SIGMAGYR® RVL..., RVP..., RVD...	8
SONOHEAT®, SONOGR®	3
Siemeca™ WF.21..., WF.26...	2
Siemeca™ WHE21..., WHE36	1
Siemeca™ AEW21.2 and AEW36.2 per input	1
PadpulsM1	1
Third-party device with own Device Description	8
Unknown device without own Device Description	8

* only RXB... with KNX logo

PC hardware

PC component	Minimum requirement
Processor	Pentium-compatible 300 MHz, recommended 600 MHz
RAM	128 MB, recommended 256 MB

<i>PC component</i>	<i>Minimum requirement</i>
Hard disk	1.9 GB free memory (Windows XP) 2.0 GB with 1.0 GB free memory (Windows 2000) Recommended: additional 20 MB free memory per plant
Screen	VGA standard driver 800 × 600, 256 colors Recommended: SVGA standard driver 1028 × 768
Ports	USB 1.1 and higher or serial COM up to 19,200 Baud (directly or via modem) Parallel port for copy protection
Operating system	<ul style="list-style-type: none"> Windows XP, service pack 1 Windows 2000, service pack 3
Diskette drive	3½", 1.44 MB, for diskette with log file
CD-ROM or DVD drive	

Modems

Modems are required if communication takes place via the telephone network. The drivers of the modems installed under Windows can be used.

Type summary

ACS741 is supplied as a complete set. Copy protection (dongle) and log file (license) are included.

<i>Type reference</i>	<i>Dongle CMD.01</i>
ACS741	Included

Ordering and delivery

Standard package

Ordering

When ordering, please give type reference **ACS741**.

Delivery

The standard package is supplied as a set in a box, consisting of:

- CD-ROM with
 - operating software
 - service software
 - alarm software
 - batchjob software (extra license requested)
 - documentation
- Copy protection CMD.01
- Diskette with key for copy protection
- Installation instructions

Documentation

Software

<i>Type reference</i>	<i>Document and reference number</i>
ACS7...	Installation Instructions CE1G5640xx User Manual CE1U5640en (ACS Operation, ACS Service) User Manual CE1U5641en (ACS Alarm) User Manual CE1U5642en (ACS Batchjob)
ACS700	Data Sheet CE1N5641en
ACS712	Data Sheet CE1N5643en
ACS713	Data Sheet CE1N5644en
ACS715	Data Sheet CE1N5645en
ACS741	Data Sheet CE1N5647en
ACS785	Data Sheet CE1N5648en

Systems

<i>Type of system</i>	<i>Document and reference number</i>
Synco™ 700 / Synco™ RXB HVAC Controls with Konnex Interface	Range Description CE1S3110en
Konnex bus	Data Sheet CE1N3127en
Konnex bus, system description	Basic Documentation CE1P3127en
Local Process Bus (LPB), System Engineering	Basic Documentation CE1P2370E
Local Process Bus (LPB), Basic Engineering Data	Data Sheet CE1N2032E
Local Process Bus (LPB), Basic System Data	Data Sheet CE1N2030E
M-bus System	Basic Documentation CE1P5361en
M-bus System, Basic System Data	Data Sheet CE1N5361E
Siemeca™ AMR System	Data Sheet CE1N2870en

Central units

<i>Type of central unit</i>	<i>Document and reference number</i>
Central communication unit OZW775	Data Sheet CE1N5663en Installation Instructions CE1G5663en Commissioning Instructions CE1C5663en
Central communication unit OZW771	Data Sheet CE1N3117en Basic Documentation CE1P3117en Installation Instructions CE1G3117xx
Central communication unit OCI600	Data Sheet CE1N2529E Basic Documentation CE1P2529en User Manual CE1U2529E
Central communication unit OCI611	Data Sheet CE1N2533en Installation Instructions CE1G2533xx
M-bus central unit OZW10	Data Sheet CE1N5362E User Manual CE1U5362E
M-bus central unit OZW111	Data Sheet CE1N5363en Installation Instructions CE1G5363xx
Service interface OCI700	Data Sheet CE1N5655de

Technical design

Operating and service software

General

The operating software and the service software include applications with the following features:

- The following applications can be started several times and operated in parallel:
 - Plant Diagram
 - Popcard
 - Online Trend
 - File Transfer
 - Parameter Settings
 - Commissioning Report
- Several applications can be used simultaneously (e.g. Plant Diagram and Popcard)
- Active applications (e.g. Online Trend) can operate in the background
- User-defined adjustments can be made in the following applications and views:
 - Plant Diagram
 - Popcard

The software contains a device description of each supported device. The device descriptions define

- the data points with the associated features
- the links to the applications

Plant Diagram

This application permits the graphic presentation of plant (individual devices or groups of devices) with the following choices:

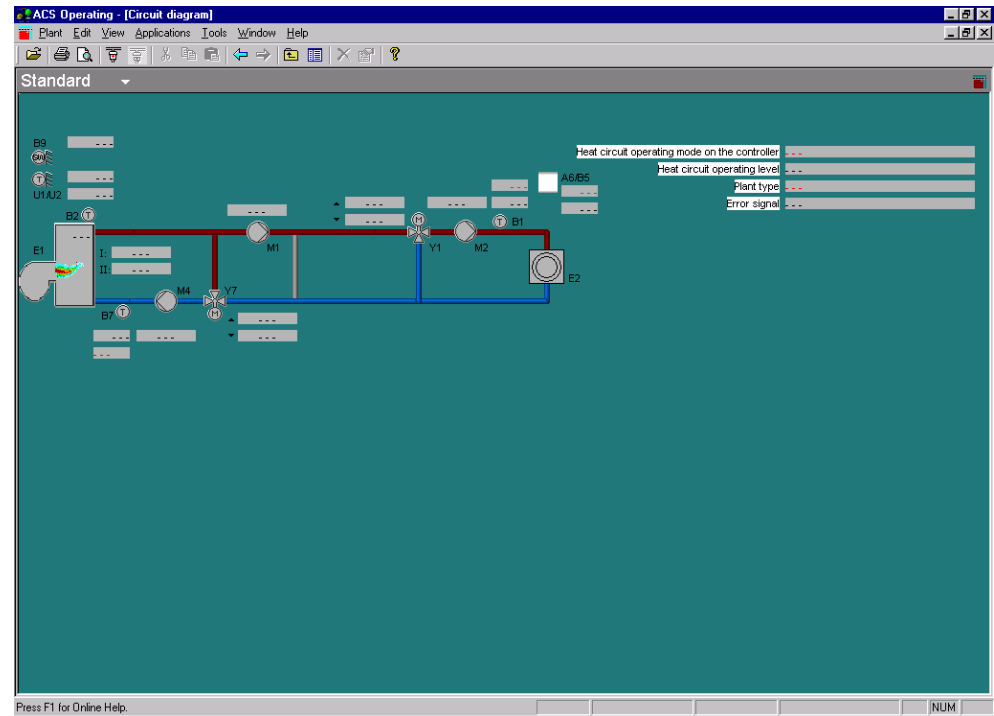
- Automatic updating of process values in the diagram
- Changing setpoints in the diagram
- Links to other diagrams can be established

A user-defined plant diagram is created as follows:

- Use external graphic software (e.g. Micrografx Picture Publisher™) for the graphic presentation. The graphs can be adopted in bitmap format
- For the inclusion of data points and links, the application has an Editor integrated

All plant diagrams will be stored in a separate library. They can also be created without having a connection to the plant (offline).

The plant diagrams can be printed out.



This application is used to visualize the transmitted data points of each device and their values.

Each type of device uses standard popcards. Makeup and contents of the operating pages are predefined

User-defined popcards can be created for each device and each node. Data points of all subordinate devices can be added to popcards that are assigned to a node. Standard and user-defined popcards can be copied to devices of the same type or to superposed nodes.

The user-defined popcards offer the following features:

- They can consist of several user-defined pages
- Each page can be subdivided into several user-defined sections
- Freely selectable data points and separators can be assigned to the popcards, the pages and the sections

Switching between the standard and the user-defined popcards is possible at any time.

Each selected page is automatically updated. The updating process will be visualized.

The operating pages can be printed out and exported as an ASCII file.

N.	Line no.	Address	Data point	Value	Unit
● 1	51	Controller,12;0;1	Relay test	Inactive	
○ 2	53	Controller,12;0;1	Plant type	Plant type 9	
○ 3	54	Controller,12;0;1	Room temp setpoint current	10.0	°C
○ 4	56	Controller,12;0;1	Dhw temp actual value	----->	°C
○ 5	57	Controller,12;0;1	Boiler temp actual value	56.9	°C
○ 6	58	Controller,12;0;1	Boiler sequence flow temp actual value	73.7	°C
○ 7	62	Controller,12;0;1	Room unit type	----->	
● 8	63	Controller,12;0;1	Room unit type	Digital	
○ 9		Controller,12;0;1	Remote telephone switch	Open	
● 10	64	Controller,12;0;1	Heating curve parallel displacement	0.0	°C
● 11	65	Controller,12;0;1	Room temp gain factor	4	
● 12	67	Controller,12;0;1	Room temp switching differential	1.0	°C
● 13	68	Controller,12;0;1	Flow temp min limitation	8	°C
● 14	69	Controller,12;0;1	Flow temp max limitation	80	°C
● 15	70	Controller,12;0;1	Building construction	Light	
● 16	71	Controller,12;0;1	Heating curve adaptation	Operative	
● 17	72	Controller,12;0;1	Pump type	Boiler/heating circuit pump	

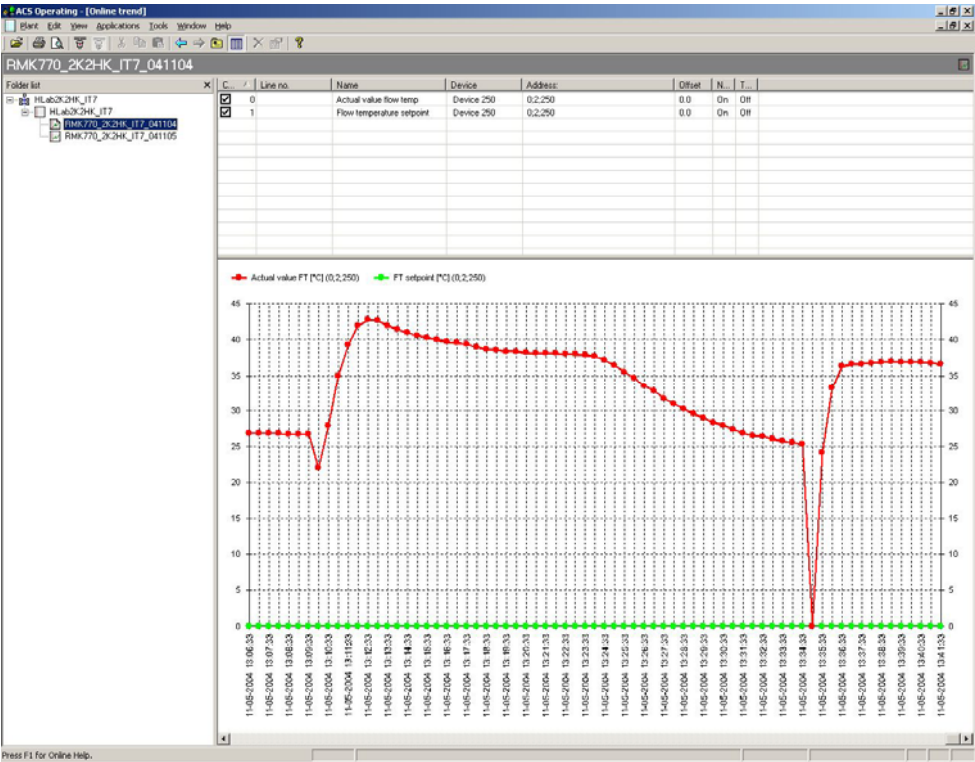
Online Trend

This application allows any data points of a plant to be logged. The connection between plant and PC is established. All acquired data are stored directly on the PC. The graphic presentation of trend logging takes place online.

The description, the selected data points of all devices of the plant and the sample interval are defined in the trend definition.

In trend logging, the cyclically queried data are stored and graphically presented. Earlier trend logging can be graphically shown again at any time.

Trend logging can be printed out and exported as an ASCII file.



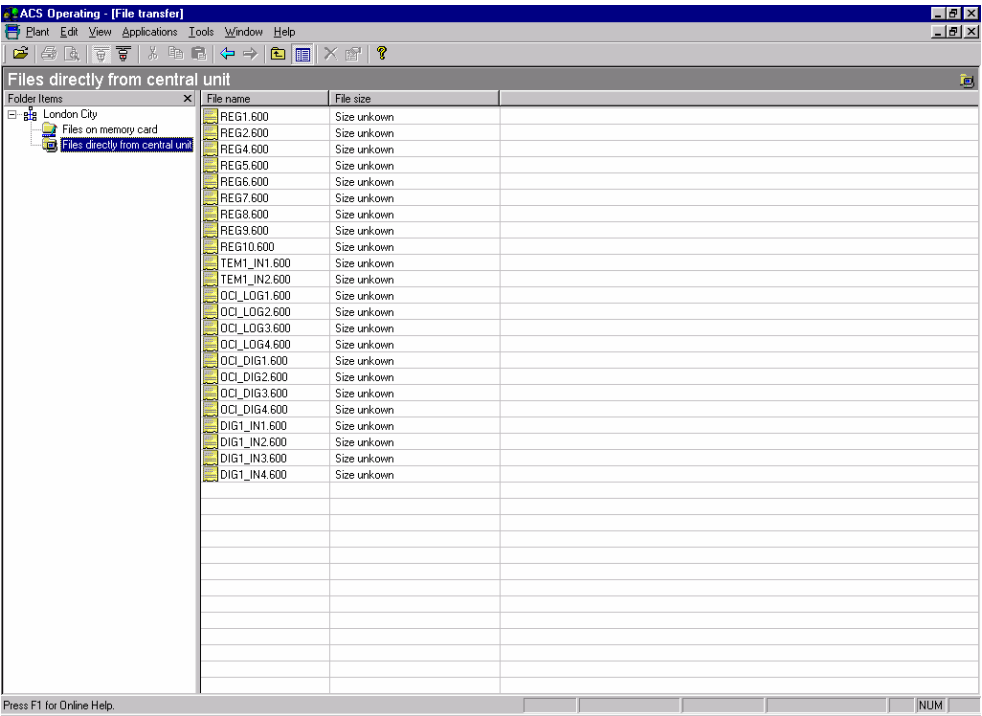
File Transfer

This application makes possible the exchange of files between the central unit and a PC. It enables

- files to be copied from the central unit or its memory card to the PC
- files to be copied from the PC to the central unit's memory card
- the memory card to be formatted

For visualizing the data, a selectable Editor that is suited for ASCII files can be started.

File transfer can be automated by making use of the batchjob software.



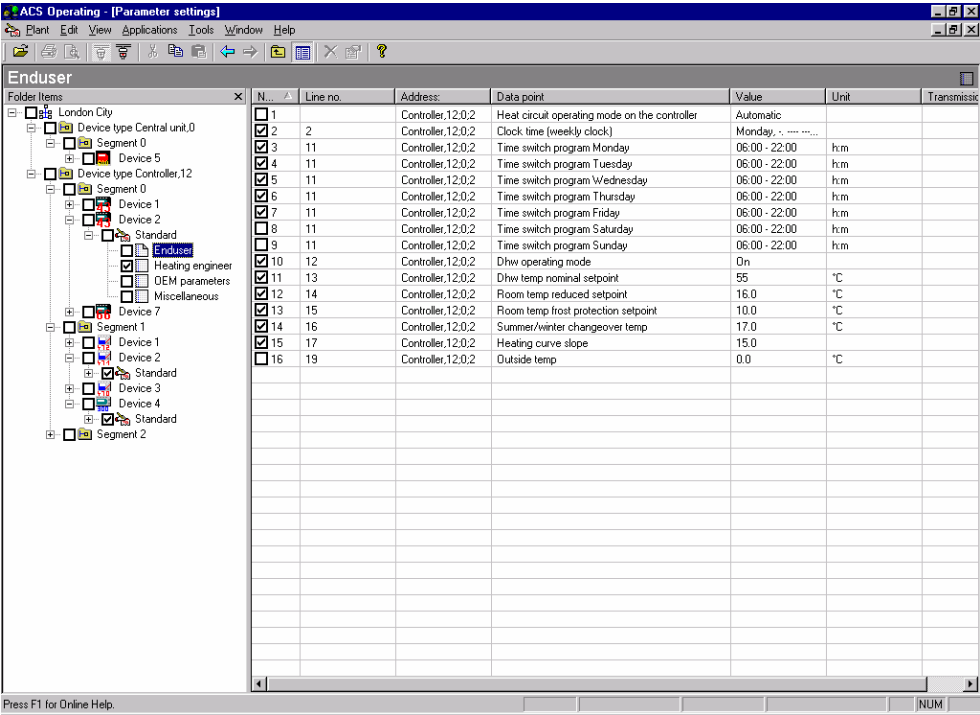
This application is used to download, upload or compare the settings of the connected devices.

The settings can be

- stored as a parameter set
- compared with a stored parameter set
- compared with the standard parameter set
- overwritten with a stored parameter set
- overwritten with the standard parameter set

The parameter sets can be edited either online or offline. The individual data points of a parameter set can be selected. The transmission result of uploading, downloading or comparing is displayed online.

The parameter set can be printed out and exported as an ASCII file.



Commissioning Report

This application is used to log the setting values of individual devices, groups of selected devices or of entire plants.

The data points of the selected devices are stored with data point designation, value, unit and status.

The commissioning report can be printed out and exported as an ASCII file.

ACS Operating - [Commissioning Report]

Plant Edit View Applications Tools Window Help

Enduser

Folder Items

London City

Installation

Commissioning report: 2002-01-08

Device 3

Enduser

Switching program

Holiday period 1-8

Heating engineer

Service

Miscellaneous

No.	Line no.	Address	Data point	Value	Unit
1		Controller,12,1,3	Heat circuit oper.	Standby	
2		Controller,12,1,3	Manual operation	Off	
3		Controller,12,1,3	Room temp setp...	0.0	°C
4		Controller,12,1,3	Analog heating ...	41.5	°C
5		Controller,12,1,3	Analog heating ...	61.5	°C
6		Controller,12,1,3	Outside temp	16.9	°C
7		Controller,12,1,3	Flow temp actua...	44.6	°C
8		Controller,12,1,3	Boiler temp actua...	----->	°C
9		Controller,12,1,3	Room temp actua...	----->	°C
10	1	Controller,12,1,3	Room temp nomi...	20.0	°C
11	2	Controller,12,1,3	Room temp redu...	---	°C
12	3	Controller,12,1,3	Room temp setp...	---	°C
13	14-17	Controller,12,1,3	Clock time	---	
14		Controller,12,1,3	Error signal	---	

Press F1 for Online Help.

Filter ON

NUM

Alarm software

General

The alarm software consists of the following applications for the reception and further handling of alarms and of the plant's operating status:

- Alarm
- System Report

Alarm

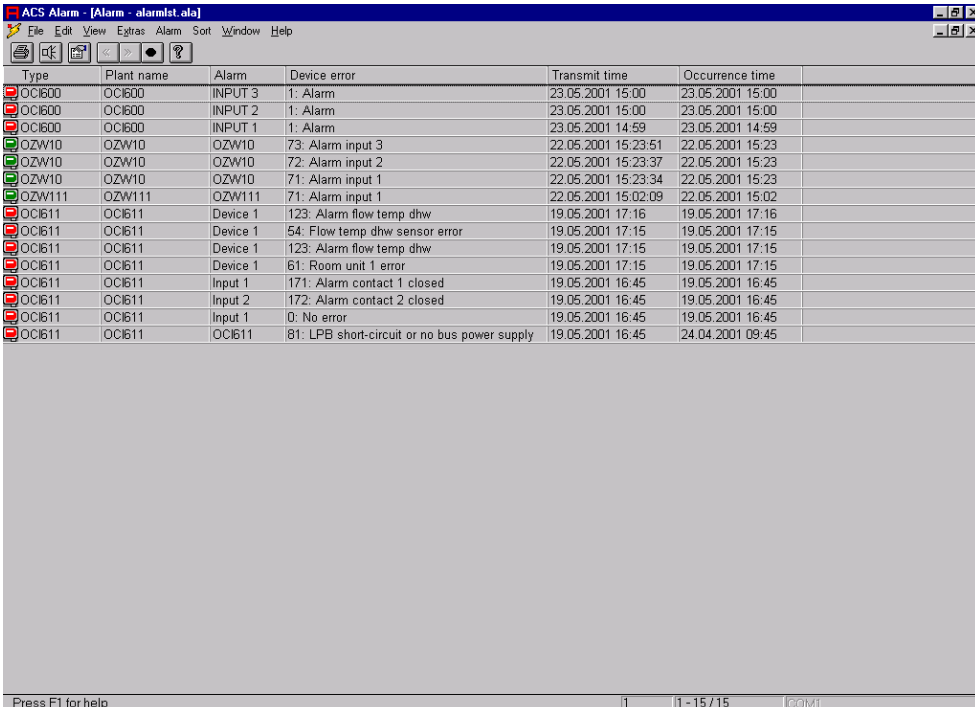
Every alarm received from the plant is entered in an alarm list.

The alarm reception sequence can be configured:

- Acoustic signal
- A popup window opens. The alarm is entered in the alarm list only when the window is closed
- Printout on a printer
- Any combination of the 3 choices

The user can select the columns of the alarm list. The column designations and the arrangement of the individual columns can be configured on a user-specific basis.

The entire alarm list can be exported as an ASCII file. Also, to facilitate further handling in other programs, the alarms received are automatically exported to an ASCII file.



The screenshot shows a window titled "ACS Alarm - [Alarm - alarmlist.ala]". It contains a table with the following columns: Type, Plant name, Alarm, Device error, Transmit time, and Occurrence time. The table lists several alarms, including inputs 2 and 1 for OC1600, and various device errors and alarm inputs for OC1611 and OZW10/OZW111. The status of each alarm is indicated by a small icon in the Type column.

Type	Plant name	Alarm	Device error	Transmit time	Occurrence time
OC1600	OC1600	INPUT 3	1: Alarm	23.05.2001 15:00	23.05.2001 15:00
OC1600	OC1600	INPUT 2	1: Alarm	23.05.2001 15:00	23.05.2001 15:00
OC1600	OC1600	INPUT 1	1: Alarm	23.05.2001 14:59	23.05.2001 14:59
OZW10	OZW10	OZW10	73: Alarm input 3	22.05.2001 15:23:51	22.05.2001 15:23
OZW10	OZW10	OZW10	72: Alarm input 2	22.05.2001 15:23:37	22.05.2001 15:23
OZW10	OZW10	OZW10	71: Alarm input 1	22.05.2001 15:23:34	22.05.2001 15:23
OZW111	OZW111	OZW111	71: Alarm input 1	22.05.2001 15:02:09	22.05.2001 15:02
OC1611	OC1611	Device 1	123: Alarm flow temp dhw	19.05.2001 17:16	19.05.2001 17:16
OC1611	OC1611	Device 1	54: Flow temp dhw sensor error	19.05.2001 17:15	19.05.2001 17:15
OC1611	OC1611	Device 1	123: Alarm flow temp dhw	19.05.2001 17:15	19.05.2001 17:15
OC1611	OC1611	Device 1	61: Room unit 1 error	19.05.2001 17:15	19.05.2001 17:15
OC1611	OC1611	Input 1	171: Alarm contact 1 closed	19.05.2001 16:45	19.05.2001 16:45
OC1611	OC1611	Input 2	172: Alarm contact 2 closed	19.05.2001 16:45	19.05.2001 16:45
OC1611	OC1611	Input 1	0: No error	19.05.2001 16:45	19.05.2001 16:45
OC1611	OC1611	OC1611	81: LPB short-circuit or no bus power supply	19.05.2001 16:45	24.04.2001 09:45

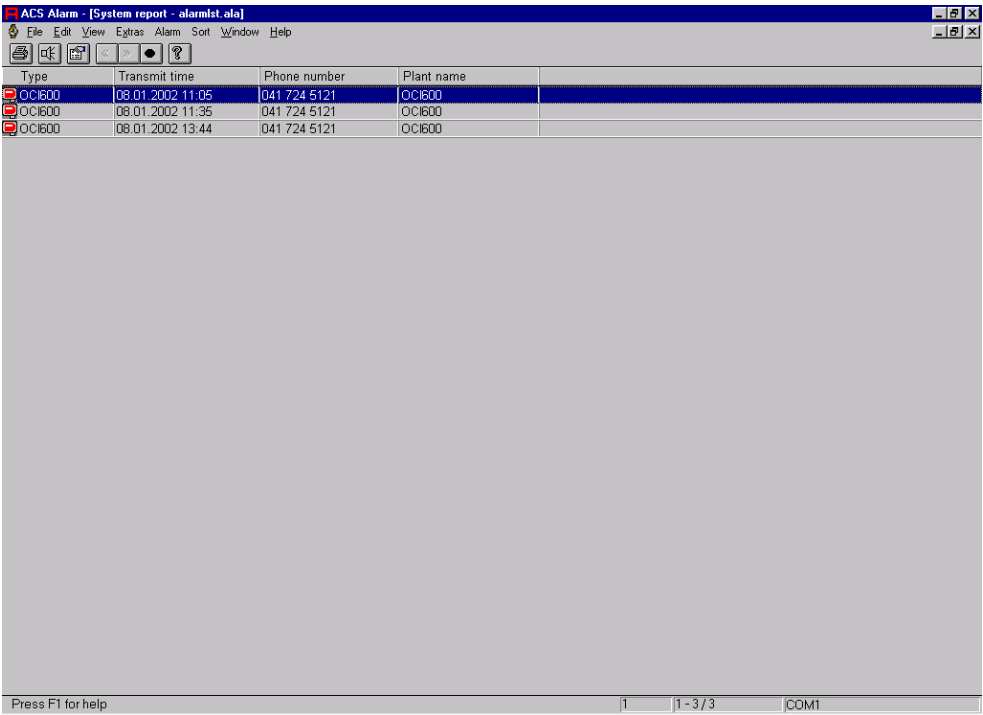
Press F1 for help | 1 | 1-15/15 | [COM1]

System Report

The system report is used to monitor plant operation.

It contains general information about the plant, such as type of central unit, phone number of the plant and plant name. Also, a system report of the OCI600 central unit can transmit alarms, meter readings or the number of operating hours.

The system report can be output on a printer.



The screenshot shows a software window titled "ACS Alarm - [System report - alarmlst.ala]". The window has a menu bar with "File", "Edit", "View", "Extras", "Alarm", "Sort", "Window", and "Help". Below the menu bar is a toolbar with icons for printing, saving, and other functions. The main area of the window contains a table with the following data:

Type	Transmit time	Phone number	Plant name
OCI600	08.01.2002 11:05	041 724 5121	OCI600
OCI600	08.01.2002 11:35	041 724 5121	OCI600
OCI600	08.01.2002 13:44	041 724 5121	OCI600

At the bottom of the window, there is a status bar with the text "Press F1 for help" on the left, and "1", "1 - 3 / 3", and "COM1" on the right.

General functions

Plant Navigation

For plant navigation, the plant is presented in the form of a tree structure. The following applications support this mode of presentation:

- Plant Diagram
- Popcard
- Online Trend
- Parameter Settings
- Commissioning Report

The plant view in the form of a tree structure can either be shown or hidden.

The screenshot shows the 'ACS Operating - [Popcard]' window. On the left, a tree structure under 'Folder Items' shows a hierarchy starting with 'London City', followed by 'Hide Park Lane', 'Building 27', 'Building 29', 'Building 35', and 'Piccadilly'. Each building has associated 'Gerät' (Device) icons. On the right, a table displays data points. The table has columns: No., Line no., Address, Data point, Value, and Unit. The data points include room temperature setpoints, time switch programs for various days, and error signals.

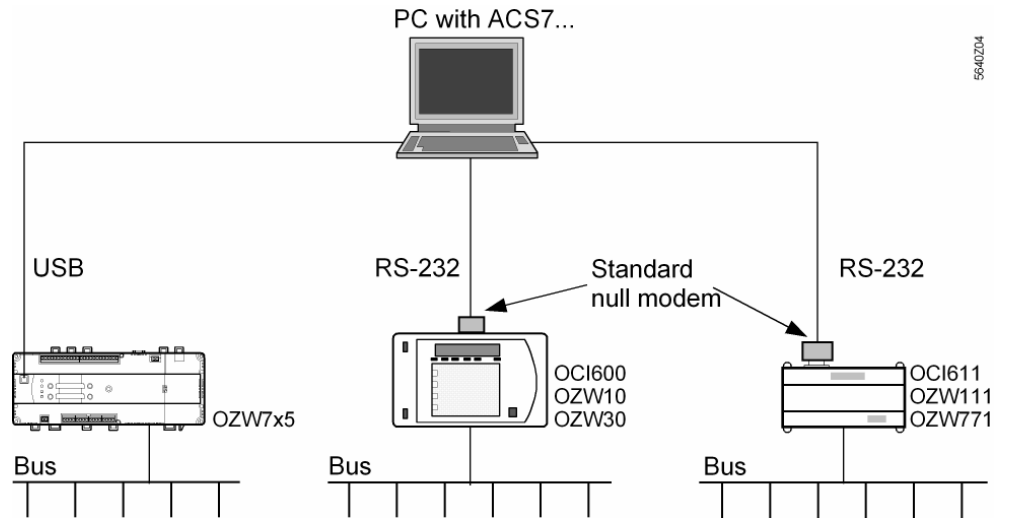
No.	Line no.	Address	Data point	Value	Unit
1	1	Regler.12.1.2	Room temp nominal setpoint	20.0	°C
2	2	Regler.12.1.2	Room temp reduced setpoint	14.0	°C
3	3	Regler.12.1.2	Room temp setpoint holiday mode/frost protection	10.0	°C
4	5-10.1	Regler.12.1.2	Time switch program 1 Monday	06:00 - 22:00	hm
5	5-10.2	Regler.12.1.2	Time switch program 1 Tuesday	06:00 - 22:00	hm
6	5-10.3	Regler.12.1.2	Time switch program 1 Wednesday	06:00 - 22:00	hm
7	5-10.4	Regler.12.1.2	Time switch program 1 Thursday	06:00 - 22:00	hm
8	5-10.5	Regler.12.1.2	Time switch program 1 Friday	06:00 - 22:00	hm
9	5-10.6	Regler.12.1.2	Time switch program 1 Saturday	06:00 - 22:00	hm
10	5-10.7	Regler.12.1.2	Time switch program 1 Sunday	06:00 - 22:00	hm
11	14	Regler.12.1.2	Dhw temp nominal setpoint	55	°C
12	14	Regler.12.1.2	Dhw temp actual value warmer	0.0	°C
13	17-22.1	Regler.12.1.2	Time switch program 2 Monday	05:00 - 22:00	hm
14	17-22.2	Regler.12.1.2	Time switch program 2 Tuesday	05:00 - 22:00	hm
15	17-22.3	Regler.12.1.2	Time switch program 2 Wednesday	05:00 - 22:00	hm
16	17-22.4	Regler.12.1.2	Time switch program 2 Thursday	05:00 - 22:00	hm
17	17-22.5	Regler.12.1.2	Time switch program 2 Friday	05:00 - 22:00	hm
18	17-22.6	Regler.12.1.2	Time switch program 2 Saturday	05:00 - 22:00	hm
19	17-22.7	Regler.12.1.2	Time switch program 2 Sunday	05:00 - 22:00	hm
20		Regler.12.1.2	Error signal	No error	

Connections

Communication with the central units can take place either directly or via modem.

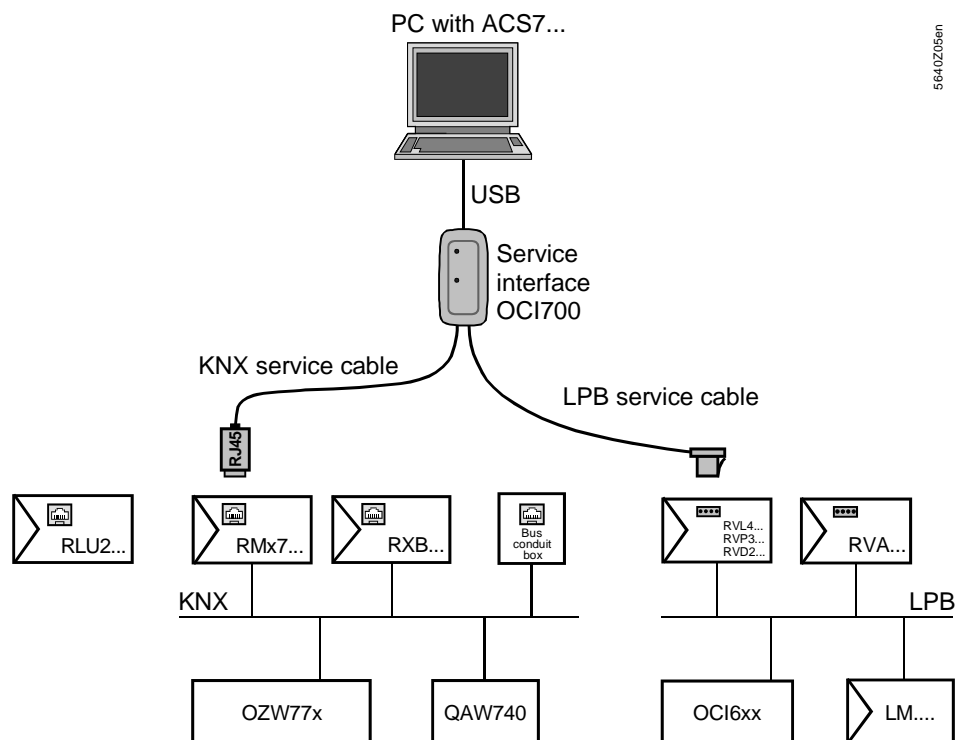
Direct connection for plant supervision

In the case of a direct connection, a standard null modem or standard USB cable is required between central unit and PC.



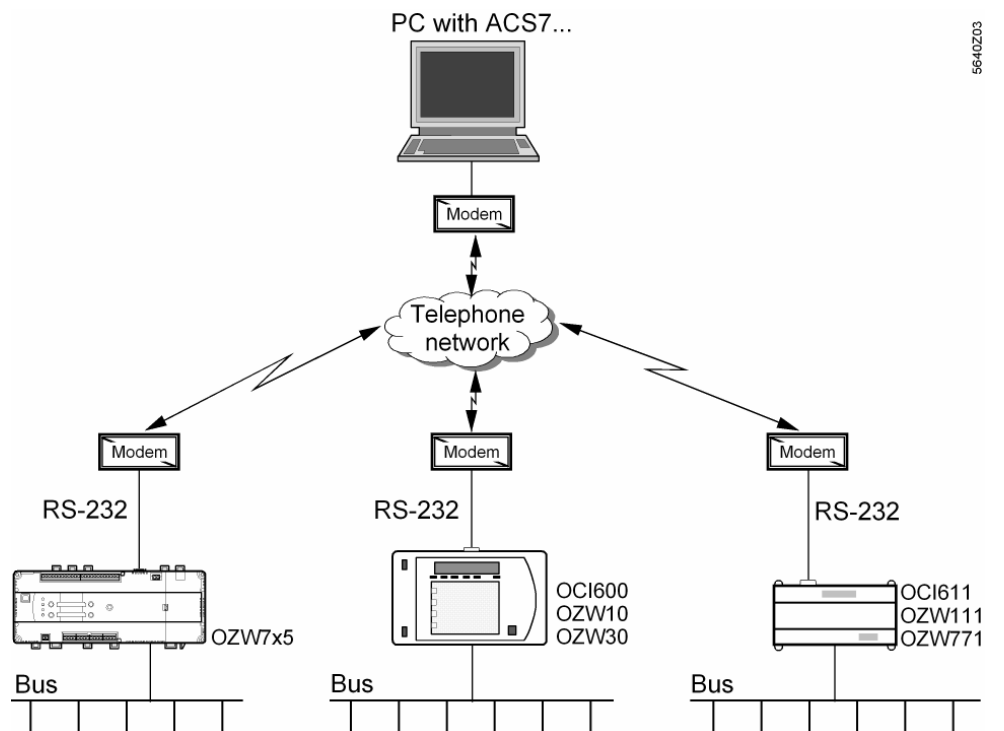
5640Z04

Direct connection for service



5640Z05en

In the case of a connection via the telephone network, a Hayes-compatible modem is required on each side.



For more detailed information about RS-232 cables, standard null modems and modems, refer to the various pieces of Basic Documentation.

Commissioning notes

The software must be installed according to the Installation Instructions supplied with the CD.

General note

The programs offer the standard Windows Help functions, so a description of the commands and menus is available at any time.